# ANNUAL REPORT 2020

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www.werbe-freiheit.com

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## **Editorial**

Dear friends of the IMFS,

Right at the start of 2020, the coronavirus pandemic reshaped many of the things we considered to be normal, and forced us to work within new guard rails. For an academic institute such as the IMFS, this pandemic brought substantial challenges together with new opportunities in terms of policy questions to be addressed and avenues for reaching out to researchers, policymakers and the public at large.

In a variety of new formats and publications, we analyzed central banks' as well as governments' responses to the fast economic downturn and the prevailing uncertainty. IMFS researchers' comments met a very high level of public interest: Commentaries as well as radio and TV interviews almost doubled in 2020 compared to the previous year. IMFS faculty also adjusted to the new situation in terms of teaching activities: We developed new class formats and integrated the pandemic into our syllabus in bachelor, master and Ph.D. level courses.

Starting in March 2020, we were early adopters of the webinar format to discuss urgent policy questions and present new findings and special reports concerning the economic impact of the pandemic. It was fascinating to see how the economics profession came together to provide analysis and modelling to better understand the interaction of the economy with the spread of the virus as well as different policy decisions. Within the Macroeconomic Modelling and Model Comparison Network we launched a Webinar Series on macro modelling and pandemics, reaching many more scholars and practitioners around the world than ever before as the participation was no longer limited to on-site attendance. You will find summaries of all events in this report.

Our annual flagship event, the conference "The ECB and Its Watchers" took place in a hybrid format, with some speakers and panelists on campus and others connecting virtually from their offices in Europe or the United States. At the start of the year, the European Central Bank (ECB) launched its strategy review. The 2020 edition of our conference contributed to this review as a listening event with academics on the ECB's mandate, its instruments and its monetary policy strategy. The discussions and arguments presented by renowned scholars and former policymakers at the conference are available in an IMFS Interdisciplinary Study, which also offers links to the videos of panels and speeches.

A unique feature of the IMFS is the collaboration of monetary and financial economists with scholars of public and private law. The pandemic has brought forth new policies and initiatives in many areas where economic, financial and legal expertise are called for. These include, for example, computational modelling and simulation of macroeconomic and financial developments, judicial evaluation of unconventional monetary policies, as well as new regulatory questions concerning digital money and financial innovations. We hope you will find this report of interest.

Kind regards,
Volker Wieland,
Managing Director and Professor of Monetary
Economics

Michael Binder,

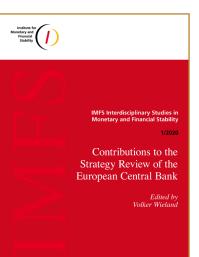
Deputy Managing Director and Professor for International Macroeconomics and Macroeconometrics

# Highlights



The Institute for Monetary and Financial Stability (IMFS) serves as a hub for interdisciplinary research in economics that is dedicated to improving our understanding of conditions and policies that are supportive of both price stability and financial stability. In 2020, the impact of the coronavirus pandemic on the economy and society as a whole was a key topic of research and policy analysis at the institute. At the same time, it led us to quickly adapt our channels for communication and dissemination of analytical findings to the new environment.

# IMFS Participates in the Review of the ECB Monetary Policy Strategy



For the European Central Bank (ECB), the year 2020 was marked by its strategy review. The ECB's main task, as the central bank for the euro, is to secure price stability in the euro area. With the strategy review, the ECB wants to ensure that the monetary policy strategy is fit for purpose and equipped to fulfill the ECB's primary objective of keeping prices stable. The IMFS

also contributed to this process with its flagship conference series "The ECB and Its Watchers" and a related new IMFS Interdisciplinary Study.

Since the ECB's last strategy review in 2003, the economy has changed fundamentally. Declining growth and the repercussions of the financial crisis have already driven interest rates down, making it harder for the ECB and other central banks to ease monetary policy further when economic growth is slow. As a result, the ECB's set of instruments has expanded. Developments like globalization, digitalization, demographic change, and climate change also pose new challenges for the economy.

Therefore, on January 23, 2020, the ECB launched a strategy review in order to investigate a range of questions: what precisely is meant by "price stability", that is, what rate of inflation should the ECB aim for; what are the monetary policy instruments the ECB uses, including interest rates and asset purchases; and how should the economy be analyzed to ensure the risks to price stability are discovered in good time as well as the impact of the decisions on consumers, companies, markets and banks. The ECB also wants to analyze how issues such as employment, social inclusion, climate change, and financial stability are relevant regarding its objectives. Apart from that, the ECB reconsiders the way it communicates with different target groups.

To carry out its review, the ECB set up twelve work streams on key topics, such as fiscal and monetary policy in a monetary union, inflation expectation and inflation measurement, the price stability objective and macroprudential policy, monetary policy and financial stability. Information gathered in special events and ideas submitted to the website "ECB Listens" also feed into the work streams below. On February 24, the ECB announced in a press release the kick-start of the Eurosystem listening events. In this context, "The ECB and Its Watchers" conference, organized by the IMFS, served as first listening event with academics. Due to the coronavirus pandemic, the strategy review process was halted in the spring and resumed again in September 2020.

The conclusion of the strategy review was postponed from the end of 2020 to mid-2021.

On September 30, "The ECB and Its Watchers" was opened by ECB President Christine Lagarde. The panels discussed key topics of the strategy review: the ECB's mandate, the ECB's instruments, and the ECB's monetary policy strategy. The panels were moderated by governors of national central banks, and ECB chief economist Philip R. Lane closed the conference with a wrap-up of the main takeaways for the ECB.

Afterwards, the IMFS shared the insights of the presentations and discussions in an IMFS Study on Monetary and Financial Stability entitled "Contributions to the Strategy Review of the European Central Bank". The IMFS Study, 106 pages strong, also contained images and video links and was distributed among central banks worldwide.

Apart from that, on November 11, Volker Wieland participated in the "ECB Forum on Central Banking". The theme of this two-day online ECB event was "Central banks in a shifting world", reflecting the need of central banks to adapt on an ongoing basis to changing national and international circumstances. A range of topics central to the ongoing review

of the ECB's monetary policy strategy were examined. Wieland contributed to the panel on "Inflation objective, structural forces, and central bank communication". In his presentation, he recommended that the ECB consider inflation more broadly in its communication and not focus solely on the Harmonized Index of Consumer Prices (HICP). Wieland argued that the range of the inflation objective of "below, but close to 2 percent" offers the ECB flexibility to include other inflation measures in policy communication as well.

Furthermore, he shared his insights with ECB President Lagarde in roundtable sessions related to the monetary policy strategy. In a virtual meeting on September 15, academics presented comments and suggestions relevant for the ECB strategy review directly to Governing Council members. The roundtable events concentrated on two main topics: Setting the price stability objective, i.e. the most appropriate level of the inflation to target and its operational specification; and how to achieve price stability including, e.g., targeting approaches, the effectiveness of monetary policy instruments, the role of secondary objectives, etc.

### IMFS Interdisciplinary Legal and Economic Research Offers a Way Forward Following the PSPP Ruling of the German Federal Constitutional Court

On May 5, 2020, the German Federal Constitutional Court ruled that the ECB's large-scale bond-buying program to stabilize the Eurozone exceeds European Union competencies. It judged that certain ECB decisions exceeded the powers transferred by member states to the EU and hence violated complainants rights under the German constitution.

The ruling concerned the purchases of government debt by the ECB under the so-called Public Sector Purchase Programme (PSPP). It stated that the ECB failed to assess and substantiate — in its decisions — that the PSPP program satisfies the principle of proportionality as mandated by Art 5.1. of the Treaty of European Union (TEU). In doing so, the German Court directly contradicted the Court of Justice of European Union (CJEU). The GFCC ruled that the Deutsche Bundesbank would have to stop participating in the PSPP program within three months unless the ECB Governing Council substantiated that this principle is satisfied. And it requested the German constitutional organs that is the German government and the German parliament – to take steps seeking to insure that the ECB explains its proportionality assessment. IMFS professors analyzed the ECB bond purchase programs in various papers:

In a joint research paper, Helmut Siekmann and Volker Wieland investigate the ECB's options after the decision of the German Constitutional Court. They come to the conclusion that the ECB could meet the requirements of the Constitutional Court by taking them into account during its strategy review. They consider this a possible practical way forward for the Governing Council to avoid having to force the conflict of courts and point out possible avenues for developing its communication strategy further without any "loss of face." The Neue Zürcher Zeitung described the suggested compromise by the IMFS professors.

In a law review article, Helmut Siekmann analyzed content and consequences of the German Court's decision in more detail: He also put the decision in the context of prior cases in which other supreme national courts had not followed a ruling of the Court of Justice of the EU.

As an expert witness in the PSPP case at the Federal Constitutional Court in July 2019, Wieland had argued that the program was part

of monetary policy and that the bond purchases can be considered as proportionate given the degree of discretion the ECB Council must be accommodated, However, the magnitude of bond purchases was not absolutely necessary, he said in an interview with Frankfurter Allgemeine Zeitung (FAZ). In an interview with Süddeutsche Zeitung, Wieland also referred to the ECB's decisions which call for an explanation: "As I understand it, the ECB's analysis of the proportionality has to be explained in the decisions published by the Governing Council," he said. Speeches and press conferences were not sufficient in the Court's view. His expert witness statement is available as IMFS Working Paper 139.

In another IMFS Working Paper, Helmut Siekmann thoroughly analyzed various ECB bond-buying programs. In some cases, he is skeptical about them being classified as monetary policy without constraints.

In a joint paper, Lars P. Feld, from the German Council of Economic Experts, and Volker Wieland argue that the ruling of the German Federal Constitutional Court and its call for conducting and communicating proportionality assessments regarding monetary policy could be used as a way to strengthen the independence of the ECB. The researchers explain how a regular proportionality check could be integrated in the ECB's strategy which is currently undergoing a systematic review. They propose to include quantitative benchmarks for policy rates and the central bank balance sheet in the context of such a proportionality check.

### **Helmut Siekmann**

The Asset Purchase Programmes of the ESCB - An Interdisciplinary Evaluation IMFS Working Paper 134

### **Volker Wieland**

Verfahren zum Anleihekaufprogramm der EZB (Expert opinion at the Federal Constitutional Court)

**IMFS Working Paper 139** 

### **Helmut Siekmann and Volker Wieland**

The Ruling of the Federal Constitutional Court Concerning the Public Sector Purchase Program: A Practical Way Forward IMFS Working Paper 140

### Lars P. Feld and Volker Wieland

The German Federal Constitutional Court Ruling and the European Central Bank's Strategy IMFS Working Paper 145 (forthcoming in the Journal of Financial Regulation)

### **Helmut Siekmann**

The Asset Purchase Programmes of the ESCB in the Courts

In: Frank Rövekamp, Moritz Bälz, Hanns Günther Hilpert (eds.), Monetary Policy Implementation in East Asia, Springer Nature, Cham (Switzerland) 2020, p. 87-142

### **Helmut Siekmann**

Gerichtliche Kontrolle der Käufe von Staatsanleihen durch das Eurosystem (Judicial Control of the Purchase of Sovereign Bonds for the Eurosystem) Europäische Zeitschrift für Wirtschaftsrecht – EuZW 2020, p. 491-500

# Michael Haliassos Receives Teaching Prize

For thirteen years, Michael Haliassos has been teaching the economics course on the global economic environment at Goethe Business School. Based on the evaluation of the part-time Master in Finance (PTMF) students, he was awarded the first prize together with two further faculty members. The economics course had already received several awards in the past.

### IMFS Alumni and Researchers Publish Findings in Leading Economic Journals

Since 2017, IMFS graduate Elena Afanasyeva has been an economist at the Board of Governors at the Federal Reserve Board in Washington. In the Division of Financial Stability, Elena is responsible for the Financial and Macroeconomic Stability Studies section, which is focused on the assessment and research on the linkages between financial stability and macroeconomic performance, including the effects of the distress of financial

institutions. In December 2014, Elena earned her Ph.D. in economics from Goethe University with a dissertation on "Credit Booms: Identification, Modelling, and Policy Responses". In May 2020, her joint research with Jochen Güntner, Associate Professor at the Department of Economics at Johannes Kepler University (JKU) Linz, Austria, was published by the *Journal of Monetary Economics*. In the paper,



entitled "Bank market power and the risk channel of monetary policy", the authors investigate whether banks lend to riskier borrowers after a monetary expansion. They modify the classic costly state verification problem by introducing a risk-neutral monopolistic bank, which maximizes profits subject to borrowers' participation. In 2014, the paper had been issued as IMFS Working Paper 85.

Also, the research of Martina Jancokova, doctoral candidate and former IMFS researcher, received attention. In December, her joint research with Georgios Georgiadis on "Financial Globalisation, Monetary Policy Spillovers and Macro-modelling: Tales from 1001 Shocks" was published in the Journal of Economic Dynamics & Control. In their paper, they use monetary policy shock estimates for 29 economies obtained from more than 190 structural monetary models. Martina is a financial stability expert with the ECB, Georgios is a senior economist in the ECB's International Policy Analysis Division in the Directorate General International & European Relations. In 2012, Georgios graduated with a Ph.D. from Goethe University. His advisers were Michael Binder and Thomas Laubach.

IMFS Research Professor Michael Haliassos, together with Thomas Jansson and Prof. Yigitcan Karabulut, received the Hillcrest Best Paper Award 2020 in Behavioral Finance from the Review of Financial Studies for the paper "Financial Literacy Externalities". The prize recognizes the top paper published each year in the Review of Financial Studies, one of the most prestigious finance journals, and is endowed with 5,000 US Dollar. Additionally, a paper by Michael Haliassos together with Nicola Fuchs-Schündeln titled "Participation following sudden access" was accepted for publication in the Journal of Monetary Economics, the leading journal in the field of monetary macroeconomics. Finally a survey article on "Household Finance" by Michael Haliassos, Francisco Gomes and Tarun Ramadorai is forthcoming in the prestigious Journal of Economic Literature.

Research at the cross-section of monetary policy and finance by IMFS Professor Alexander Meyer-Gohde and Martin Kliem on "(Un)expected Monetary Policy Shocks and Term Premia" was accepted for publication in the Journal of Applied Econometrics, a leading journal in the field of econometric methods and applications.

# IMFS Model Comparison Initiative Conducts a Model Forecasting Competition

Quantitative macroeconomic models play an important role in informing policymakers about the consequences of monetary, fiscal and macroprudential policies. The Macroeconomic Model Comparison Initiative (MMCI), undertaken jointly by the Hoover Institution at Stanford University and the IMFS, was launched in 2017. The start-up phase was supported by a threeyear grant from the Alfred P. Sloan Foundation. MMCI aims to put model comparison at center stage in macroeconomic modeling research. The initiative served to more than double the number of relevant macroeconomic models that are integrated into the public archive Macroeconomic Model Data Base (MMB). The MMB is available at www.macromodelbase.com. It offers a complete model development software that allows users to build on and compare many new models, especially new models including more detailed characterizations of the linkages and interaction with the financial sector. MMB users can upload and integrate new models and scenarios.

Currently, MMB version
3.1 includes more than
150 models. The platform
allows users to analyze
the consequences of a
cut or a rise in interest
rates, a change in fiscal
policy, as well as the
effects of many sources of



economic disturbances in a large variety of models. Researchers are able to run comparisons across different model types and economies. Models developed at the Federal Reserve, ECB, European Commission, and International Monetary Fund, as well as the central banks of Sweden, Canada, Finland and Chile are also available within this platform.

In January 2020, Volker Wieland presented the systematic approach of the platform as well as first results of the Macro Model Comparison and Forecast Competition at Goethe University's Macroeconomic Seminar. In a joint forthcoming paper, Michael Binder, Mátyás Farkas, Zexi Sun, John B. Taylor, Volker Wieland, and Maik Wolters analyze whether new post-crisis macro-financial models have performed better in forecasting the recession of 2008/09 than pre-crisis structural models.

# IMFS Contributes Legal Expertise on Regulating Crypto Currencies

With the draft Regulation on Markets in Crypto-Assets, the European Commission proposes an overarching regulatory framework for virtual assets, which includes stable coins in particular, and provides for a special regime for value-referenced tokens. In an article that is forthcoming in a law book on the Law of Global Digitality in 2021, Roland Broemel analyzes the regulatory instruments. He argues that the prudential treatment of digital currencies is to a large extent characterized by the classification and adaptation of digital issues into the established categories.

However, digital currencies have technical and economic characteristics which distinguish them structurally from sovereign currencies, especially with regard to their cross-border circulation. These differences remain even if sovereign currencies are digitized in the form of scriptural money. These characteristics give rise to specific prudential needs, in particular for investor and consumer protection and the prevention of money laundering and terrorist financing. Stablecoins can also, if they reach a certain volume, affect the stability of financial markets or the effectiveness of monetary policy measures by central banks.

# IMFS Legal Research Continues on the Overall Concept of Legal Tender

In view of the accelerating debate on the issuance of digital legal tender by the central banks, Helmut Siekmann continued his work on the origins and implications of legal tender. The developments had and have far-reaching effects both on the legal side of money as on the whole architecture of retail-banking. His most recent contribution appeared in a volume originating from a keynote speech in a high level conference on the euro as legal tender: "Monetary Aspects of the Euro as Single European Currency – a German Perspective" in a book edited by Robert Freitag and Sebastian Omlor titled "The Euro as Legal Tender."

### **Graduates and Awards**

In February 2020, Mátyás defended **Farkas** his Ph.D. dissertation "Essays Expectations, Risks on and Unconventional Monetary Policy", with Michael Binder and Volker Wieland as his advisers. An economist at the ECB's Directorate General Monetary Policy, Monetary Policy Strategy Division, Mátyás is still highly involved with the



institute. In September 2020, he published a joint Working Paper with Ph.D. candidate Balint Tatar. For this paper, titled "Bayesian Estimation of DSGE Models with Hamiltonian Monte Carlo," they received the Honorable Mention Award at the International Association for Applied Econometrics conference in 2021. During his time at the IMFS, Mátyás contributed to the Macroeconomic Model Data Base and was involved with the MMCI project.

Benny Hartwig, who pursues his Ph.D. at the Chair for International Macroeconomics and Macroeconometrics of IMFS Deputy Managing Director Michael Binder, was successful in the 2020 graduate student contest of the Society for Computational Economics with his research on "Robust Inference in Time-Varying Structural VAR Models: The DC-Cholesky Multivariate Stochastic Volatility Model". Benny is currently a researcher at Deutsche Bundesbank.

# The IMFS Reaches Wider Audience Via Webinars

Usually, the IMFS brings together on-site policymakers, academics, and the public for discussions on current aspects of monetary policy, regulation, and supervision, as well as their implications and consequences. Given the restrictions due to the coronavirus pandemic, the institute switched from in-person events to a series of webinars whose speakers attracted a wide audience and participants from all over the world. In a webinar series of the CEPR Network on Macroeconomic Modelling and Model Comparison (MMCN), researchers presented macroeconomic models regarding the coronavirus pandemics. Between May 4 and June 3, eight researchers discussed current research. In doing so, the IMFS managed to organize more events than before while reaching a much wider audience. The number of registered participants more than doubled in comparison with precorona times to almost 3,000.

The IMFS flagship event "The ECB and Its Watchers", which attracts considerable attention, took place in a hybrid format with many speakers and a small group of participants on-site and most of the audience taking part online.

### The Corona Pandemic Generates Huge Public Interest for Competent, Research-Based Assessment

As a member of the German Council of Economic Experts (GCEE), Volker Wieland interacted with politics and the public on various occasions throughout the year. At the beginning of the coronavirus lockdown in March, the GCEE presented a special report "The Economic Outlook in the Coronavirus Pandemic". In June, this was followed by an economic update and the publication of the Annual Report in November. All presentations received considerable interest in the media.

Also, the number of media requests increased substantially. Press inquiries for editorials and interviews almost tripled, radio and TV interviews doubled and also short commentaries rose to an all-time high of nearly 150. Issues discussed ranged from the impact of the coronavirus pandemic and the economic stimulus programs to the ECB monetary policy in the crisis, the ECB strategy review and the new strategy of the Fed.



Deutschland droht eine schwere Rezession. Ganzen Branchen brechen Aufträge und Umsatz weg. Die Folge: Kurzarbeit, Arbeitslosigkeit, fehlende Steuereinnahmen.

11 min | 29.04.2020 | ₱ UT - DGS



# Teaching in Corona Times



The coronavirus completely changed the ways of teaching. IMFS professors provide an insight on how they adapted their courses to the new challenges, developed new formats and integrated the pandemic into their syllabus.

### Michael Binder:

# Teaching Intermediate Macroeconomics Incorporating Calculations of the Business Cycle Effects of the COVID-19 Pandemic

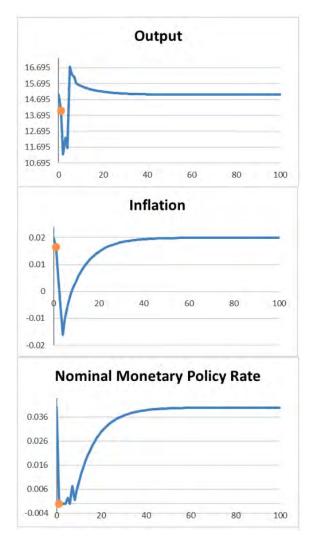
The course "Macroeconomics 1" is a large-scale course with several hundred participants in the Bachelor program of the Faculty of Economics and Business at Goethe University. It is at the level of an intermediate macroeconomics course, but in international comparison involving an unusually large number of hours of classroom interaction with the students with on average 315 minutes per week. A key benefit of this large number of hours available for instruction is that this renders it possible to go beyond the "typical" material covered in such a course. When teaching this course, I can therefore go beyond the graphical and descriptive analysis of business cycle and growth models that is "usual" at this level, to also cover the quantitative analysis of these models, at a level that is accessible to secondyear undergraduate students. While some of this quantitative analysis involves model solution "using paper and pen", for some years now I have also been using Excel-based workbooks developed specifically for this course. The workbooks allow students to trace the effects of various shocks on macroeconomic aggregates in automated form, both through animated graphical analyses as well as through programmed calculation of the exact magnitudes of the changes the shocks cause for macroeconomic aggregates of interest. The distribution of these workbooks occurs under the Creative Commons licensing standard, and thus encourages students to share with each other their work on the course and beyond.

Among the business cycle models considered in the course for some years now has been an extended version of an AS-AD model, that goes beyond a pricing relationship ("the aggregate supply curve") and an "aggregate demand curve" incorporating consumption, investment, government expenditure and trade balance functions as well as a Taylor-rule based specification of monetary policy. The extended model also captures an occasionally binding zero lower bound constraint for the nominal monetary policy rate, as well as an endogenous risk premium affecting borrowing by households and firms. While this model can convey to students how a financial crisis may cause deeper and more persistent recessions than normally observed over the course of a business cycle, it per se does not allow to study the effects of the COVID-19 implied shocks on output, inflation and other core macroeconomic aggregates. While students this semester were fully appreciative of the need to hold classes as Zoom sessions, they surely would not have been as appreciative if I had told them that modelling of the macroeconomic effects of the pandemic was beyond reach of the course.

In a new development for the course in winter semester 2020/21, then, the extended AS-AD model structure sketched above was augmented further to allow for a mixture of demand and supply shocks similar in type to those that the current research literature is considering. The pandemic-specific model components include, for given levels of income, wealth and interest rates, lockdown and/or social-distancing implied reductions to domestic and/or foreign consumption, as well as shocks to productivity that in turn are reflected in changes of the neutral monetary policy rate.

While the resultant model for an intermediate macroeconomics course may involve an abundance of propagation mechanisms, students showed great willingness to go the extra mile and solve such a model as well as simulate it with the help of Excel-based workbooks.

The following graphs show time profiles for key macroeconomic variables as predicted by the model in response to a temporary tightening of lockdown restrictions coupled with declines of aggregate productivity and a post-pandemic dissolution of the holdup in consumption:



Clearly, these time profiles are not suited to be used as conditional forecasts for the German or any other economy, but succeeded in conveying to the students in the course how the interaction of various macroeconomic propagation mechanisms could lead to a COVID-19 implied deep recession, even as monetary policy exhausts all its conventional options - and adds unconventional options to its repertoire as well -, and as fiscal policy aims to mitigate the loss of real economic activity. While the news conveyed by the graphs is somber, it was rewarding to observe how quite a few of the students over the course of the semester started to feel drawn to the virtues of quantitative macroeconomic analysis and its use for questions at the heart of current life. More than that, quite a few of the students began to think about how the models considered within the course could be used as a starting point for the calculation of conditional forecasts helpful for practical decision making as individual savers, firm managers or policy advisors, within and beyond the pandemic.

# Volker Wieland: Teaching Macro-Financial Modeling and the Coronavirus Pandemic

As a regular part of the IMFS doctoral training in the area of monetary and financial stability, I offer a Ph.D. course on "Monetary and Fiscal Policy: Theory and Practice" in the winter semester and a Ph.D. seminar on "Macro-Financial Modeling" in the summer semester of the 2<sup>nd</sup> year of the Ph.D. program at the Graduate School of Economics, Finance and Management (GSEFM) at Goethe University.

In the summer semester 2020, I adapted the Ph.D. seminar right away to address questions of macroeconomic modelling and the coronavirus pandemic. Typically, doctoral students participating in the seminar are expected to develop a thorough understanding

of macreconomic models and their applications in the areas of monetary, fiscal and regulatory policy making. In particular, teams of two doctoral students each are tasked to replicate the computer code for simulating a particular quantitative model and to then compare it to other models available in the Macroeconomic Model Database. Ideally, this puts them in a position right at the research frontier and allows them to pursue their own novel work on macroeconomic modelling after having taken part in the seminar. In earlier seminars, we dealt mostly with new macro-financial models that were developed following the global financial crisis in order to better address relevant questions concerning the design of monetary, fiscal and regulatory policies.

When the COVID-19 pandemic spread across the globe, researchers within the macroeconomic modelling community quickly proceeded to study the macroeconomic implications of the pandemic. Interestingly, there are important parallels between macroeconomics and epidemiology. Epidemiologists also make use of mathematical and computational techniques. They built models to analyse the spread of infections and disease. Of course, the spread of infections also depends on human behaviour, an area that is central to economic modelling. Indeed, macroeconomists quickly adapted and combined macroeconomic and epidemiological models and a new class of macro-epi models emerged as a result. This research received wide interest and some of these models have been applied in various policy making institutions.

Several of the new models were presented in the above-mentioned MMCN seminar series on Macroeconomic Modelling and the Coronavirus Pandemic. At the same time, doctoral student teams in my Ph.D. seminar read these papers, gave presentations on the models and then tried to replicate and modify the computer code. Of course, there were some difficulties and the new online environment made teaching and interaction more difficult too. Yet, on this occasion our doctoral students could already gain experience on macroeconomic and epidemiological modelling while we all experienced the early stages of the pandemic and its impact on the economy.

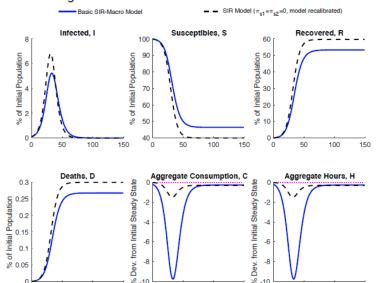
The basic SIR model of epidemics does not consider the endogendous decision-making of people faced with the risk of infections. The new macro-epi models discussed in the seminar, however, take into account how consumers voluntarily reduce certain consumption activities in order to avoid infections. Similarly, some companies close shop on their own initiative in order to avoid that workers get infected. The models analysed in the seminar in summer semester 2020 included "The Macroeconomics of Epidemics" by Eichenbaum, Rebelo and Trabandt; "Macroeconomic Dynamics and Reallocation in an Epidemic" by Krueger, Uhlig and Xie; "The Coronavirus Stimulus Package: How large is the transfer multiplier?" by Bayer, Born, Luetticke and Müller; "News and uncertainty about COVID -19: Survey Evidence and short-run economic impact" by Dietrich, Küster, Müller and Schoenle and "Fiscal policy in a pandemic" by Faria-i-Castro.

The impulse response simulation of a pandemic shock in a macro-epi model (here: Eichenbaum, Rebelo, Trabant 2020) indicates how individuals get infected and spread the disease to other individuals. As the number of infections increases, rational agents are consuming and working less to decrease the risk of getting infected.

This happens since infections are modeled to not only occur spontaneously, but also while consuming or working. Thus, the basic macro-epi model shows how an epidemic can have a major impact on economic activity even in the absence of wide-ranging health restrictions imposed by the government.

The seminar format is somewhat special. We start with some lectures to introduce modelling concepts and techniques of macroeconomic model comparison, including the Macroeconomic Model Database (MMB). Then, the students work on a chosen model in teams. In a first presentation each group presents the paper and

Figure 1: Basic SIR-Macro Model vs. SIR Model



100

Weeks

150

50 100 Weeks 150

100

Weeks

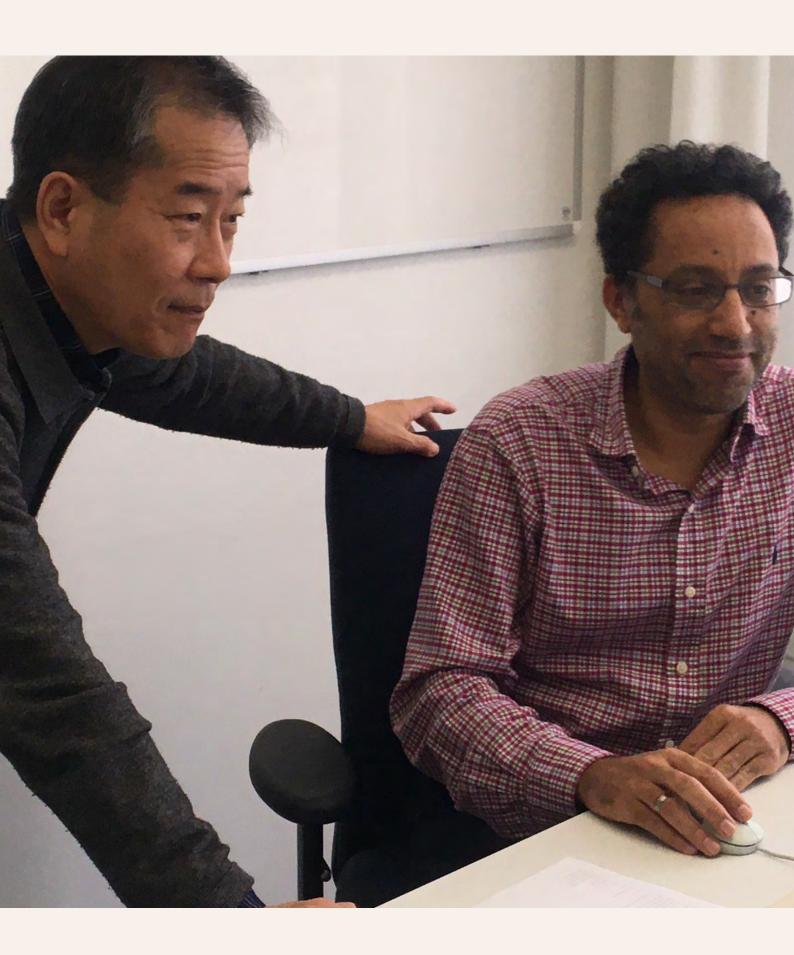
150

the underlying model to the group. Then, they work on a replication of the computer code underlying the model. Towards the end of the semester, students give a second presentation to the group, reporting on how well they were able to replicate the model analysis. Finally, they conduct a model comparison exercise that involves comparative simulations of the impact of policy changes and provide a report on the results.

In past semesters, this approach has led to many new macro-financial models being incorporated in the MMB on the basis of students' replication efforts. With the new macro-epi models this is more complicated as a new format for the model data base has to be developed. In the meantime, further macro-epi models have been developed. For example, the effects of testing, quarantine, health restrictions and a range of fiscal policy measures have been analysed. Other modelling advances include price ridigities, monetary policy and the financial accelerator. We are currently (summer semester 2021) conducting another Ph.D. seminar with additional macro-epi models that incorporate these advances being replicated by doctoral student teams. Next, we plan to make available a collection of macro-epi model replications on a website. In a joint project with Mathias Trabandt we plan to present comparative model simulations of epidemics and the effects of different policy instruments in an online-comparison format.

In the meantime, the comparative analysis of the global financial recession of 2008/09 and the corona-virus pandemic recession of 2020 with the help of macroeconomic models has also become a key element of my Ph.D. course on "Monetary and Fiscal Policy: Theory and Practice" starting with the winter semester 2020/21.

# Institute and Staff



### I. The Institute

The Institute for Monetary and Financial Stability (IMFS) is a research center of Goethe University Frankfurt, located in the House of Finance. The focus of the institute is on the tasks, competences and powers of central banks in monetary policy, financial regulation and financial supervision as well as their impact on the financial system and the real economy.

The IMFS encompasses three core chairs: Monetary Economics; Financial Markets and Macroeconomics; and Public Law, Economic Currency Law, Financial Markets Regulation and Legal Theory. These chairs are complemented by professors from the university's regular faculty with relevant research interests. Currently, three additional professors collaborate closely with the core professors, forming part of the IMFS's Executive Board. Since 2012, Volker Wieland has been heading the institute as Managing Director. A Board of Trustees supervises and guides the activities of the institute.

In 2007, the IMFS was established as part of the "Currency and Financial Stability" project funded by a grant of the Stiftung Geld und Währung (Foundation of Monetary and Financial Stability) on the order of a total of ten million euros over a period of ten years. The Foundation of Monetary and Financial Stability was created by federal law on January 1, 2002. In 2017, the Foundation and Goethe University agreed on the perpetuation of the IMFS as well as an extension of the funding period. Until 2027, the IMFS will receive external funding in the amount of five million euros by the Foundation of Monetary and Financial Stability. Furthermore, Goethe University, the Faculty of Economics and Business and the Faculty of Law joined the Foundation in the funding of the Institute in order to maintain the size of the IMFS and the scale of its activities. From the start, the institute's main objective has been to promote public awareness of the benefits of monetary and financial stability. It has been focusing on questions regarding monetary and

financial stability from economic, financial and legal perspectives.

Within the scope of central banking, the researchers collaborate in order to pursue the institute's objectives:

- Economic and legal research, partially conducted in an interdisciplinary way
- Raising research funding
- Public outreach
- Doctoral and post-doctoral training
- Economic and legal police advice

### **Economic and Legal Research**

Economic and legal research is conducted at the three core chairs of the IMFS:

### **Monetary Economics:**

This research area addresses questions pertaining to the importance of stable prices; the analysis of different stability-oriented strategies of monetary policy; the study of business cycles and the role of expectations in money and financial markets; the development and implementation of monetary macroeconomic models; and the analysis of the interactions between monetary, fiscal and macroprudential policy.

### **Financial Markets and Macroeconomics:**

This chair addresses questions regarding microeconomic foundations of financial markets in economy-wide models and pursues interdisciplinary projects in the area of price stability and financial stability. Especially, the research concentrates on the methodological (numerical, theoretical, and empirical) foundations of macroeconomics and its interaction with financial markets through nonlinearities in risk and uncertainty, as well as through market frictions.

### Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory:

This chair focuses on market regulation, in particular as it relates to currency, banking supervision, network regulation and the media. Furthermore, one cross-sectional project examines the legal aspects of digitalization and algorithm-based applications. Further research interests include Basic Law theory and legal technical methodology.

The Foundation's and Goethe University's support allows for long-term basic research with an interdisciplinary dimension. Particular emphasis is put on promoting the academic and interdisciplinary exchange of views by means of research seminars, lectures and conferences. These events are jointly organized and attended by the IMFS professors and involve researchers from around the world who work on economic, financial or legal aspects pertaining to IMFS research areas.

It is particularly valued if IMFS research achieves high impact in the respective field, for example, by publishing in a leading international journal or book series, achieving high citation counts in scientific journals, or being frequently cited in legal commentaries.

### **Doctoral and Post-Doctoral Training**

The IMFS also aims to advance knowledge about monetary and financial stability by contributing to doctoral and post-doctoral training. IMFS professors teach advanced Master and Ph.D. level courses, and organize research-oriented seminars at the Master, doctoral and post-doctoral levels. IMFS professors interact and collaborate with doctoral and post-doctoral students and staff members at the IMFS in various further formats, including Master thesis supervision, dissertation supervision, reading groups, brown-bag lunches, workshops, discussions

and, on some occasions, also joint research projects.

Pre-doctoral members of the IMFS research staff working in the areas of monetary economics, financial markets and/or macroeconomics typically are doctoral students in the Ph.D. programs at Goethe University, under the auspices of the Graduate School of Economics, Finance, and Management (GSEFM). GSEFM offers Ph.D. programs that are structured in line with international best practice. The GSEFM offerings in the fields of monetary economics, macroeconomics and econometrics in their current format and depth would not be possible without the involvement of IMFS professors. Various new teaching formats have been introduced at GSEFM by IMFS professors, and the doctoral student demand for supervision by IMFS professors is high.

Each year, GSEFM places a sizeable number of graduates in highly coveted research-oriented positions in academia, and other public as well as private-sector institutions. Nearly every year, one or more of the members of the IMFS research staff defend their Ph.D. and Dr. jur. theses and receive offers for research-oriented positions at central banks, ministries, international organizations, research think tanks and/or universities.

Post-doctoral staff members at IMFS can take part in a variety of training courses offered by the Goethe Graduate Academy (GRADE), including courses on organizational proficiency, communication competencies as well as leadership and teamwork skills. The GRADE training courses also include short courses taught by IMFS professors.

### **Economic and Legal Policy Advice**

An essential task of the IMFS involves transferring research findings into the world of financial institutions, central banks, and political decisionmakers. Joint interdisciplinary approaches to research-based policy advice are explicitly encouraged. The IMFS aims to further the interaction with policymakers and transferring research findings into policy by using the following four channels:

- Organizing lectures, seminars and policy-oriented conferences that involve key policymakers together with academics;
- Producing IMFS Working Papers and studies with practical policy implications and contributing writings to external policyoriented publications;
- Participating in parliamentary hearings and government advisory bodies and contributing to advisory reports requested by governmental agencies;
- Contributing interviews and commentaries on policy issues to the media.
- Advising and representing government organs in constitutional court cases.

Indicators of success in this area include the level of the policymakers who interact with academics at IMFS events, the importance of the policy publications to which IMFS researchers contribute, the relevance of the hearings and government advisory bodies IMFS researchers participate in, and the public visibility and media impact of IMFS contributions on policy issues.

### **Public Outreach**

The IMFS aims to raise and promote awareness among the general public regarding the significance of a stable currency. The institute pursues this objective on two levels: Locally, the IMFS reaches out to the financial community in Frankfurt, Germany's financial center, by regularly organizing lectures and seminars with IMFS researchers and distinguished speakers from other institutions that deal with current issues in the area of monetary and financial stability. In 2020, lectures and conferences were held in an online format, which also allowed to reach out to a wider audience, irrespective of their location.

In order to communicate with the public on a national and international level, IMFS professors give speeches and presentations and participate in discussions. Furthermore, IMFS researchers regularly contribute to national and international newspapers and magazines, websites, blogs, and TV and radio programs. Indicators of success include the quality of speakers at IMFS events and the number of participants, as well as the public speaking opportunities of IMFS researchers. Additionally, the frequency of commentaries in the media provides an indication of the visibility. Media coverage of research by IMFS researchers on economic and legal questions concerning monetary and financial stability in the media is of particular importance.

### **Committees**

### **IMFS Executive Board**

Members of the Executive Board of Directors are the professorial members of the center as well as professors of Goethe University whose research focuses on IMFS-related topics and whose membership application was approved by the Board of Trustees. Furthermore, two members are elected by the staff of the institute. The chairperson of the Executive Board is the Managing Director of the institute. In September 2020, Volker Wieland was reelected unanimously.

### **Managing Director:**

Prof. Volker Wieland, Ph.D. Endowed Chair of Monetary Economics, IMFS

### **Deputy Managing Director:**

Prof. Michael Binder, Ph.D.
Chair of International Macroeconomics and Macroeconometrics, Goethe University

### Members:

- Prof. Dr. Roland Broemel
   Chair of Public Law, Economic and Currency
   Law, Financial Markets Regulation and
   Legal Theory, IMFS
- Prof. Michael Haliassos, Ph.D.
   Chair of Macroeconomics and Finance,
   Goethe University
- Prof. Dr. Alexander Meyer-Gohde
   Chair of Financial Markets and
   Macroeconomics, IMFS
- Prof. Dr. Dr. h.c. Helmut Siekmann
   Distinguished Professor
- Prof. Dr. Tobias Tröger, LL.M.
   Chair of Private Law, Commercial and Business Law, Jurisprudence, Goethe University
- Jakob Liermann, IMFS, staff representative
- Balint Tatar, IMFS, staff representative

### **Board of Trustees**

The Board of Trustees is comprised of six members who advise, support and supervise the Executive Board within the scope of its duties.

### Chairman:

Gerhard Ziebarth (until November 26, 2020) Prof. Michael Krause, Ph.D.

Chairman of the Executive Board of the Foundation of Monetary and Financial Stability

### Members:

- Dr. Ralf Debelius, Federal Ministry of Finance (until June 30, 2020)
- Prof. Dr. Klaus Günther, Dean of the Faculty of Law, Goethe University

- Prof. Dr. Christian Schlag, Dean of the Faculty of Economics and Business, Goethe University (since October 1, 2020)
- Dr. Detlev Homann, Federal Ministry of Finance (since July 1, 2020)
- Prof. Dr. Raimond Maurer, Dean of the Faculty of Economics and Business Administration, Goethe University (until September 30, 2020)
- Prof. Dr. Thomas M.J. Möllers, Augsburg University, Chairman of the Council of the Foundation of Monetary and Financial Stability
- Prof. Birgitta Wolff, President of Goethe University

# II. The IMFS in Numbers

	2020	2019	2018	2017	2016
Number of IMFS Professors	7	7	7	4	4
External funds expended	860.000 €	1.100.000€	736.000 €	907.000 €	851.000 €
IMFS Working Papers	8	8	9	11	10
IMFS Interdisciplinary Studies in Monetary and Financial Stability	1	-	-	1	-
Articles in scientific journals	8	7	4	10	5
Scientific books	2	2	1	1	1
Contributions to books	11	17	6	10	8
Policy papers	2	2	3	7	5
Google scholar citations	806	732	664	388	352
Completed dissertations total (supervised by all IMFS Professors)	7	7	11	4	15
Financed by the IMFS	1	2	1	-	5
IMFS Post-Docs placements:					
Academia, government agencies, international organizations, and central banks	2	2	2	-	3
Banks, consultancies, law firms, and others	1	1	1	-	1
Keynote and major public speeches	5	3	7	7	9
Speeches and conference presentations	63	29	63	29	48
Policy meetings and hearings	17	7	13	10	14
Media references to IMFS research papers	7	3	5	5	4
Editorials and interviews by IMFS researchers	33	12	17	11	25
Press portraits of IMFS researchers	1	1	15	4	-
Short press commentaries of IMFS researchers	151	85	70	59	93
Radio and TV interviews with IMFS researchers	27	14	15	28	29
Conferences	2	4	3	3	2
IMFS Distinguished Lectures	-	-	1	2	1
IMFS Working Lunches and Policy Lectures	13	4	4	3	3
Registered participants at IMES ovents	3024	1264	1086	1168	840
Registered participants at IMFS events Registered media representatives at IMFS events	70	84	1086	106	69
CVCIIG					

### III. Macroeconomic Model Comparison Initiative (MMCI)

The Macroeconomic Model Comparison Initiative (MMCI) is a large-scale research project of the IMFS. With the aim of rendering research structural macroeconomic modeling substantially more reproducible, replicable, comparable and collaborative, Hoover Institution at Stanford University and the IMFS launched and established the MMCI in 2017. Within the MMCI, John B. Taylor, the Mary and Robert Raymond Professor of Economics at Stanford University and the George P. Shultz Senior Fellow in Economics at the Hoover Institution, Volker Wieland and Michael Binder contributed as principal investigators. The Alfred P. Sloan Foundation awarded a three-year grant in the amount of \$591,295 in support of the MMCI. The funding ended by the end of the first quarter of 2020.

Within the project, model comparison took center stage in macroeconomic modeling research. So far, more than 150 models developed by researchers around the world are reproduced systematically and integrated into the public archive Macroeconomic Model Data Base (MMB). The MMB is available at www.macromodelbase.com. MMB users are able to directly simulate large numbers of different scenarios in multiple models using the software available for download from the website. The current version MMB 3.1. also provides a self-contained platform for modeldevelopment, it includes an in-built editor, keyword search for the models in the database that can be edited and modified, user-defined policy rules, impulse response simulations, and flexible graphing tools for displaying and downloading results. It is straightforward to contribute and upload new models. In a forum on the website, researchers can discuss model replication and comparison or ask specific questions and receive advice from the user community.

Users can browse and modify all the models' code or add new models/policy rules directly on the interface, which can also automatically

detect MATLAB/Octave and Dynare on users' computer and check their compatibility with the MMB. MMB runs on Windows, Mac including the most recent releases of macOS, and Linux. It is also compatible with MATLAB on Ubuntu.

# Macroeconomic Modelling and Model Comparison Network (MMCN)

Another important aim of the project was to initiate Macroeconomic Modelling and Model Comparison Network (MMCN). This is a network of researchers interested systematically comparing models and contributing to policy applications. The network is run in cooperation with the Centre for **Economic Policy Research** (CEPR) in London. It serves as a platform for promoting collaboration of researchers who are







working on issues of model replication and comparison, and increases the visibility of MMCI.

The third MMCN conference took place at Goethe University Frankfurt on June 13 and 14, 2019; it received highly positive feedback from numerous attendants. The conference was partly funded by a grant from the Foundation of Monetary and Financial Stability. In 2020 the MMCN organized the "MMCN Webinar Series on Macroeconomic Modelling and Pandemics" in lieu of a physical conference. The series of eight webinars took place between May 4 and June 3, 2020 with a total of 1328 registered participants, that is, on average 166 registered participants per webinar. The next MMCN conference is now being planned for 2022.

### The MMCI Team

In 2020, the MMCI team included Alexander Dück, Chihchun Huang, Lazar Milivojević, Zexi Sun, and Balint Tatar, all graduate students in the Ph.D. Program in Economics at the Graduate School of Economics, Finance, and Management at Goethe University. Additionally, Jakob Liermann provided assistance regarding coordination and communication. The core team was supported by Professor Maik Wolters for the coordination of the forecasting competition and associated estimation tools.



# IV. External Research Funding

Recipient	Project	Time Period	External	External
			Funds Received	Funds Expended
IMFS	Project Currency and Financial Stability, RF S 126/10003/04	10 years	10.115.000,00 €	2.247.547,68 €
IMFS	Project Currency and Financial Stability, RF S 126/10133/16	Sep. 2017 – Aug. 2027	5.000.000,00 €	1.375.322,43 €
IMFS	Project W3 Interim Professorship, RF S 126/10153/18	Apr. 2018 – Oct. 2018	45.000,00 €	29.341,29 €
IMFS / HS	Project Commentary on the EMU RF S126/10169/18	Nov. 2018 – Oct. 2019	70.000,00 €	70.000,00 €
IMFS Conference	Project IMFS Conference 2015, RF S 126/10114/15	Feb. 2015 – Sep. 2015	59.000,00 €	52.276,10 €
IMFS Conference HS	Project IMFS Conference 2016, RF S 126/10127/16	Apr. 2016 – Sep. 2016	49.000,00 €	49.000,00 €
IMFS Conference	Project IMFS Conference 04/2017, RF S 126/10137/17	Apr. 2017 – Sep. 2017	30.000,00 €	30.000,00 €
IMFS Conference	Project IMFS Conference, 06/2017, RF S 126/10143/17	June 2017 – Dec. 2017	20.000,00 €	20.003,00 €
IMFS Conference	Project IMFS Conference, ECB Watchers 2018, RF S 126/ 10157/2018, Project 380 2010016	Apr. 2018 – Dec. 2018	25.000,00€	25.000,00 €
IMFS Conference	Project IMFS Conference, MMCN 2018, RF S 126/ 10157/2018 Project 380 2010016	June 2018 – Dec. 2018	30.000,00 €	30.000,00 €
IMFS Conference	Project IMFS Conference, ECB Watchers XX, 03/2019, RF S 126/10173/2019,Project 380 2010018	Mar. 2019 – Dec. 2019	30.000,00€	30.000,00 €
IMFS Conference	Project IMFS Conference, MMCN 06/2019, RF S 126/0176/2019 Project 380 2010019	June 2019 – Dec. 2019	30.000,00 €	30.000,00€
IMFS Conference	Project IMFS Conference, ECB Watchers XXI, 09/2020, RF S 126/10187/2020,Project 380 2010020	Sep. 2020 – Mar. 2021	24.000,00€	24.000,00€
MB / VW	EU Project MACFINROBODS	May 2014 – Apr. 2017	296.241,36 €	236.380,95 €
HS	Festschrift Baums	2016	12.000,00 €	12.000,00€
HS	Project Collect. Works of Th. Baums, Vol. 3, 2015	June 2015 – May 2016	5.000,00 €	5.000,00 €
HS	EU-Horizon 2020: EURHISFIRM	Apr. 2018 – Mar. 2021	26.646,23 €	22.029,59 €
VW / MB	Alfred P. Sloan Foundation, MMCI (Total in US\$, IMFS exp. in €)	Dec. 2016 – Dec. 2019	591.295,00 \$ 416.608,00 €	593.851,80 \$ 416.608,00 €
Baums / VW / Sachs	Book project "Stability of the Monetary System" (managed externally)	Nov. 2017 – Nov. 2018	9.402,34 €	
МН	Project Hybrid CEPR London Collabor. and ING Project 3902010005	2018-2021	250.000,00 €	154.661,81 €
π	DFG-Grant Research Group FOR 2774 Foundations of Law and Finance	Nov. 2018 – Oct. 2022	1.577.310,00 € (incl. program allowance 284.450,00 €)	540.795,71 €

Project	External Funds Expended 2020	External Funds Expended 2019	External Funds Expended 2018	External Funds Expended 2017	External Funds Expended 2016	External Funds Expended 2015
Project Currency and Financial Stability, RF S 126/10003/04	closed	closed	79.625,76 €	612.709,62 €	717.819,27 €	837.393,03 €
Project Currency and Financial Stability, RF S 126/10133/16	481.446,29 €	435.589,84 €	356.003,68 €	102.273,62 €		
Project W3 Interim Professorship, RF S 126/10153/18	closed	closed	29.341,29 €			
Project Commentary on the EMU	closed	58.476,24 €	11.523,76 €			
Project IMFS Conf. 2015, RF S 126/10114/15	closed	closed	closed	closed	closed	52.276,10€
Project IMFS Conf. 2016, RF S 126/10127/16	closed	closed	closed	closed	49.000,00 €	
Project IMFS Conf. 04/2017 RF S 126/10137/17	closed	closed	closed	30.000,00 €		
Project IMFS Conf. 6/2017 RF S 126/10143/17	closed	closed	closed	20.003,00 €		
Project IMFS Conf., ECB Watchers 2018, RF S 126/10155/2018	closed	closed	25.000,00 €			
Project IMFS Conf., MMCN 06/2018, RF S 126/10157/2018	closed	closed	30.000,00 €			
Project IMFS Conf., ECB Watchers 2019, RF S 126/10173/2019	closed	30.000,00 €				
Project IMFS Conf., MMCN 06/2019, RF S 126/10176/2019 Project 380 2010019	closed	30.000,00 €				
Project IMFS Conf., ECB Watchers 2020, RF S 126/10187/2020	24.000,00€					
MACFINROBODS	closed	closed	0,36 €	85.224,31 €	72.884,38 €	78.134,59 €
Festschrift Baums	closed	closed	closed	closed	12.000,00€	
Coll. Works Th. Baums	closed	closed	closed	closed	closed	5.000,00€
EURHISFIRM	18.438,00 €	3.591,59€				
Alfred P. Sloan Foundation, MMCI	6.039, 80 \$ 5.101,00 €	295.564,00 \$ 188.255,00 €	217.212,00 \$ 166.115,00 €	75.036,00 \$ 57.137,00 €		
Book project "Stability"						
Project Hybrid CEPR London Collaboration and ING Project 3092010005	71.349,00 €	54.718,05 €	28.594,76 €			
DFG-Grant Research Group FOR 2774	260.357,80 €	270.769,94 €	9.667,97 €			
TOTAL	860.692,09 €	1.071.409,66 €	735.872,22 €	907.347,55 €	851.703,65 €	972.803,72 €

The acquisition of research funding is part of the objectives of the IMFS. External funding in the amount of five million euro by the Foundation of Monetary and Financial Stability forms the financial basis for the second tenyear funding period of the IMFS from 2017 to 2027.

A major research project at the IMFS, the Macroeconomic Model Comparison Initiative (MMCI), was supported financially by the Alfred P. Sloan Foundation with a total of US\$ 591,000 during a three-year period. It is a joint research initiative by the Hoover Institution at Stanford University and the IMFS. The funding ended in March 2020.

In addition, the IMFS received external funding by the Foundation of Monetary and Financial Stability that supported the conference "The ECB and Its Watchers" with 24.000 €.

For his participation in the EURHISFIRM project funded by the EU within the framework of its Horizon 2020 program, Helmut Siekmann was awarded 48.000 €. EURHISFIRM will design a world-class research infrastructure (RI) to connect, collect, collate, align, and share detailed, reliable, and standardized long-term company-level data for Europe to enable researchers, policymakers, and other stakeholders to analyze, develop, and evaluate effective strategies to promote investment and economic growth. To achieve this goal, **EURHISFIRM** develops innovative tools to spark a "big data revolution" in the historical and social sciences and to open access to cultural heritage in close cooperation with existing RIs.

### V. Member of the European Banking Institute

In a year with activities across many areas marked by the coronavirus pandemic, the European Banking Institute (EBI) managed to establish numerous new initiatives regarding research in banking regulation.

At the start of EBI as an international centre for banking studies in 2016, Goethe University joined as a founding academic member. The IMFS is proud to serve as the representative of Goethe University in this international network. Tobias Tröger and Volker Wieland are Members of the Academic Board of EBI. Tobias Tröger also serves as its Vice-President.

Thirty-one academic members from universities mostly from the euro area share and coordinate their commitments and structure their research activities in the Frankfurt-based EBI in order to provide the highest quality legal, economic and accounting studies in the field of banking

regulation, banking supervision and banking resolution in Europe. The EBI aims at fostering the dialogue between scholars, regulators, supervisors, industry representatives, and advisors with regard to issues concerning the regulation and supervision of financial institutions and financial markets from a legal and economic viewpoint. It produces interdisciplinary banking research, makes recommendations, and devises new strategies on banking in Europe.

Apart from the already existing Working Paper series, EBI launched a Discussion Paper series in 2020. They are submitted by individuals or teams that are not representing members of the EBI Academic Board and are not Fellow Academic Members of the Academic Board; they are selected by the Editorial Manager. The first contribution to the EBI Discussion Paper Series comes from Pedro Duarte Neves, Former Vice-Governor of Banco de Portugal, with a paper entitled: "An Encompassing Forward-Looking Approach to Increase Resilience in the Banking Sector: A second life for EU Stress Tests".

In order to intensify the collaboration of researchers, EBI implemented the Young Researchers Group (YRG) and the Associate Researchers Group (ARG). The ARG is dedicated to researchers who have been awarded their Ph.D. and predominantly undertake academic and/or research activities, as well as junior professors who are employed in European universities who wish to be associated to the full range of EBI's academic activities and meet specific eligibility criteria.

During the course of the year, the EBI organized various workshops, conferences and webinars. In September, EBI started its policy series. On its virtual platform, EBI discussed the ECB consultation on its supervisory approach to consolidation with Edouard Fernandez-Bollo, Member of the Supervisory Board of the ECB among the speakers.



In November, the 2<sup>nd</sup> EBI Policy Conference was held on banking in Europe in the COVID-19 crisis. EBA chairman Jose Manuel Campa, EU commissioner Valdis Dombrovskis, and ECB board member Isabel Schnabel were among the speakers of the virtual meeting.

On February 20 and 21, 2020, the IMFS jointly organized the EBI Global Annual Conference on Banking Regulation at Goethe University's Campus Westend in Frankfurt, which focused on stress tests, key prudential ratios, transparency and resolution planning as well as on sustainable finance.

In 2020, the EBI also made an important step by launching its "Master Program in Law and Practice of the Banking Union" at the University of Bologna. This Executive Master is a project developed in the frame of the initiatives of the EBI by the University of Bologna in cooperation with the University Carlos III Madrid and the University of Lisbon. The Executive Master is an EBI pilot project which aims to contribute to the development of multi-jurisdictional

teaching activities of the law of the Banking Union in the Eurozone. It examines in-depth every relevant aspect of the Banking Union, of the Single Supervisory Mechanism and the Single Resolution Mechanism, offering a wide and thorough analysis of the principles, values and rules of the Banking Union, together with the practice of prudential supervision and resolution. It also covers all relevant issues related to judicial review in banking and to criminal law and sanctioning proceedings in banking. Next to that it provides an in-depth view of banking company law, contract law in banking, structured finance and bank crisis management.

The aim is to train experts in European and national banking regulation who can successfully carry out legal and regulatory functions in supervisory or resolution authorities, credit and financial institutions, law or consultancy firms offering highly specialised judicial and extra-judicial assistance in the field of banking law. Teaching activities take place between November 2020 and November 2021 and are held at the premises of the "Umberto Eco" International Centre in via Marsala 26, Bologna.

The Director of the Master is the renowned member of the Academic Board Prof. Marco Lamandini from the Department of Sociology and Business Law at the University of Bologna. "This is a teaching experiment which in our views has the potential to timely respond to cultural needs which are key in the Banking Union. The project, in line with the EBI mandate, bridges academia, markets and governing institutions and, if successful in its first editions, may well escalate, in due course, to a Eurozone joint academic initiative within the frame of EBI, in line with the Meseberg declaration on European Advanced Schools", Lamandini said at the launch of the program.

Detailed information on all activities is available at <a href="https://www.ebi-europa.eu">www.ebi-europa.eu</a>.



### VI. The Researchers

### **IMFS Professors**

The IMFS Executive Board comprises seven professors who are either IMFS Chairs or participate **IMFS** Research Professors. as Professor Volker Wieland serves as the institute's Managing Director. Professor Michael Binder from Goethe University's Department of Money and Macroeconomics is Deputy Managing Director. All IMFS Professors come together on a regular basis for the Executive Board meetings to discuss joint research projects as well as organizational aspects and future events. In 2020, the Executive Board held online meetings on April 29, September 3, and November 23.

Furthermore, the institute has the option to appoint professors from other universities as IMFS Affiliated Professors in order to involve them more closely in its activities. Currently, these are Prof. Petra Geraats from Cambridge University, Prof. Luisa Lambertini from Ecole Polytechnique Fédérale de Lausanne, Prof. Heike Schweitzer from Humboldt University Berlin, and Prof. Maik Wolters from the University of Würzburg.

### **Volker Wieland**

IMFS Endowed Chair of Monetary Economics



Professor Volker Wieland, Ph.D., has held the Endowed Chair of Monetary Economics since March 1, 2012. As one of the three founding professors, he was involved in the successful application for the "Currency and Financial Stability" project and has

been affiliated with the IMFS from its beginning. In 2020, he was re-elected Managing Director after having filled this position since 2012. Wieland has been a member of the German Council of Economic Experts since 2013. He is also a member of the Scientific Advisory Council of the Federal Ministry of Finance, of the Scientific Advisory Council of

the Market Economy Foundation (Kronberger Kreis) and a CEPR Research Fellow.

In his research, Wieland concentrates on monetary and fiscal policy, business cycles and macroeconomic models, inflation and deflation, learning behavior and economic dynamics as well as numerical methods in macroeconomics. Wieland and his team have developed the Macroeconomic Model Data Base with more than 150 models. His research has been published in leading scientific journals such as the American Economic Review, the European Economic Review and the Journal of Monetary Economics, and in 2020 was cited on about 300 occasions, according to Google Scholar. Altogether, his research received more than 6500 citations up to now. Wieland has consistently been the highest placed Goethe University professor in the ranking of Germany's most influential economists by research and media impact published by the German daily Frankfurter Allgemeine Zeitung. The international research ranking of bibliographic database IDEAS-REPEC lists Wieland among the top two percent of economists worldwide, among the top one percent in Europe and in 25<sup>th</sup> place of more than 4000 economists in Germany.

Volker Wieland completed his Ph.D. at Stanford in 1995 and worked at the Federal Reserve in Washington for the next five years. In November 2000, he joined the Goethe University faculty. He has been a consultant to many institutions including the ECB and the European Commission. In 2008, Wieland was awarded the Duisenberg Fellowship by the ECB. In 2017, he received the "Public Service Fellowship" by the foundation of Alfons and Gertrud Kassel. With the members of the German Council Economic Experts, he received the German Economic Policy Prize 2015 of the Small and Medium-Sized Business Association of the CDU/CSU and the Thought Leader Award 2018 of the Thought Leader Forum supported by Plansecur Financial Group. In 2019, Wieland was awarded the prize of the Monetary Workshop in recognition of his research regarding monetary economics.

### **Roland Broemel**

IMFS Chair of Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory



Professor Dr. Roland Broemel, Maîtrise en Droit, has held the Chair of Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory since July 2018. Before that, he was a Junior Professor of Public

Law and Economic Law at Hamburg University's law department. Broemel's research focuses on market regulation, in particular as it relates to currency, banking supervision, network regulation and the media. Furthermore, one cross-sectional project examines the legal aspects of digitalization and algorithm-based applications. Further research interests include Basic Law theory and legal technical methodology.

Roland Broemel studied at the universities of Bayreuth (commercial lawyer), Bordeaux (Maîtrise en Droit), and Hamburg (First State Examination) and completed his legal clerkship at the Higher Regional Court of Hamburg. He received his doctorate and habilitation at Hamburg University's law department. During this time, Professor Broemel was supported by a grant of the Studienstiftung des deutschen Volkes and received the Doctorate Award 1st Class from the university's law department as well as the Hamburg Teaching Award 2010 from Hamburg's Department for Science and Research (Behörde für Wissenschaft und Forschung). He is editor of the publication series Digitization and the Law/ Recht und Digitalisierung published by Nomos, member of the scientific advisory council of the journal Recht der Zahlungsdienste and external member of the Centre for Law in the Digital Transformation at the University of Hamburg.

### **Alexander Meyer-Gohde**

IMFS Chair of Financial Markets and Macroeconomics



Professor Dr. Alexander Meyer-Gohde has held the Chair of Financial Markets and Macroeconomics since April 2018. He obtained his bachelor's degree from Colorado State University in his home state before moving to Germany. His master's degree followed

at the Humboldt-Universität zu Berlin and he obtained his doctorate from the Technische Universität Berlin. Before coming to Frankfurt, he held various positions in Hamburg, Berlin, and Potsdam.

Meyer-Gohde's research concentrates on the methodological (numerical, theoretical, and empirical) foundations of macroeconomics and its interaction with financial markets through nonlinearities in risk and uncertainty, as well as through market frictions. The international research ranking of bibliographic database IDEAS-REPEC lists Meyer-Gohde among the top eleven percent in Europe and top ten percent in Germany.

### **Michael Binder**

### Research Professor



Michael Binder is Professor of Economics at Goethe University Frankfurt, holding the Chair for International Macroeconomics and Macroeconometrics since 2003. He is also Founding Dean of the Graduate

School of Economics, Finance, and Management (GSEFM) at Goethe University, Johannes Gutenberg University Mainz and Technische Universität Darmstadt, that offers Ph.D. Programs in economics, accounting, finance and marketing.

He has been affiliated with the IMFS for a number of years, and in May 2018 was elected as Deputy Managing Director of the IMFS.

Binder received a Ph.D. in economics from the University of Pennsylvania in 1995. He has held appointments and visiting appointments inter alia at the University of Cambridge, the University of Maryland, the University of Munich (CESifo), the University of Southern California, Xiamen University, the Bank of Spain, the European Central Bank, the International Monetary Fund, and the World Bank. Binder was a Fulbright scholar, a Marie Curie research fellow, a scholar of the German National Scholarship Foundation, has directed the node of an FP7 research project, and has been the recipient of numerous teaching and advising awards. He has published on a variety of topics in macroeconomics and econometrics in journals such as Econometric Theory, the International Economic Review, and the Journal of Economic Dynamics and Control, and has held editorial board positions at Journal of Applied Econometrics, the Journal of Economic Dynamics and Control, and Empirical Economics.

Part of Binder's recent research centers around the research project "Macroeconomic Model Comparison Initiative" that was granted by the Alfred P. Sloan Foundation to the Hoover Institution at Stanford University and to the IMFS. More broadly, Binder's current research examines the implications of informational frictions and financial market structures for business cycle dynamics, output growth, and policy design. His research also involves the development of new econometric methods for panel data sets. As part of his commitment to further opportunities for young researchers in economics and finance, Binder also continues to serve as chairman of the jury of the Young Innovators Award, an award that he co-initiated in 2014 as part of his involvement with Vordenker Forum.

### **Michael Haliassos**

### Research Professor



Professor Michael Ph.D., has Haliassos, held the Chair Macroeconomics and Finance at Goethe University Frankfurt since 2004. He is a Research Fellow at the CEPR, Founding Director of the CEPR Network on Household Finance

and International Research Fellow of the Dutch Network for Studies on Pensions, Aging and Retirement (Netspar). As an expert for household finance, consumer investment and borrowing behavior and financial literacy, he is also advisor to the ECB on the Eurozone Survey of Household Finances and Consumption since its inception in 2006. He has published many influential papers in these fields, among them in leading international scientific journals such as the Review of Financial Studies, Review of Economics and Statistics, Journal of Monetary Economics, International Economic Review, Economic Journal, Management Science. Haliassos received a B.A. from Cambridge University and a Ph.D. from Yale University in 1987 under the supervision of Nobel Laureates James Tobin and William Nordhaus. He was a finalist for the University-wide teaching prize 2018.

### **Tobias Tröger**

### Research Professor



Professor Dr. Tobias Tröger, LL.M., holds the Chair of Private Law, Commercial and Business Law, Jurisprudence at Goethe University. In his research, Tröger investigates internal governance structure of banking union

institutions, the reinstallation of market discipline through bank reorganization and resolution (bail-in, living wills), capital market union, the regulation of non-bank credit intermediation (shadow banking), the development of securities regulation and social change, the law of shareholder meetings and resolutions as well as German and European sales law. Tobias Tröger has held various executive positions at the European Banking Institute (EBI), an international center for banking studies. Among the EBI's academic members, the IMFS is the representative of Goethe University. He is also Co-Director of the Center for Advanced Studies on the Foundations of Law and Finance at Goethe University, an interdisciplinary research group funded by the German Research Foundation (DFG) since 2018. The Center seeks to investigate how financial markets actually respond to law as a dynamic and evolutionary system. Tobias Tröger advises the European Parliament on matters of the Banking Union.

### **Helmut Siekmann**

### Distinguished Professor



Professor Dr. Dr. h.c. Helmut Siekmann was appointed Distinguished Professor at the IMFS in November 2018. From 2006 until March 2018, he held the IMFS Endowed Chair of Money, Currency, and Central Bank Law. He

is the founding director of the IMFS and was the institute's Managing Director from 2006 to 2010 as well as from September 2011 to May 2012. Siekmann received his doctor juris and his post-doctoral degree ("Habilitation") from the University of Cologne. He also earned a degree in economics (Diplom-Volkswirt) from the University of Bonn and was awarded an honorary doctor's degree by the University Paris-Dauphine. Siekmann's main field of work is the stability of financial markets, financial institutions, and

public finances. His research is focused on all aspects of government finances, the institutional framework of the European System of Central Banks, the European provisions to secure stable government finances, the stabilization mechanisms in time of crisis, and the supervision and control of financial markets. In addition to his academic work, Siekmann contributed to numerous legislative projects on the national and supranational level. He worked as counsel to constitutional bodies and represented them in constitutional courts. From its inception in 1996, he contributed significant parts to the standardsetting commentary on the "Grundgesetz", the German federal constitution, edited by Michael Sachs, particularly concentrating on the sections about central banks, government finances, and fiscal federalism.

### **Petra Geraats**

### Affiliated Professor



Dr. Petra Geraats is Senior Lecturer at the Department of **Economics** the at University of Cambridge. Her research areas include macroeconomics, international finance and behavioral economics. She

holds a Ph.D. in Economics from the University of California at Berkeley and a Master in Economics from Tilburg University. Her special interest lies in the transparency of monetary policy on which she has contributed to several publications, e.g. The Oxford Handbook of Economics and Central Bank Communication, Decision-Making and Governance. In 2019, Petra Geraats was among the experts to evaluate the Central Bank of Chile. She was an advisor to the International Monetary Fund and an external expert for the Central Bank Studies group at the Bank for International Settlements. In 2020, she participated as panelist at the conference "The ECB and Its Watchers".

### Luisa Lambertini

### Affiliated Professor



Luisa Lambertini is a Professor at the Ecole Polytechnique Fédérale de Lausanne, where she holds the Chair of International Finance. She received her Ph.D. in Economics from the University of California at Berkeley in 1995,

her Master of Science in Economics from the University of Warwick in 1989 and her Laurea cum Laude from the Universita' degli Studi di Bologna in 1987. Luisa Lambertini is a member of the Executive Committee of the International Banking, Economics and Finance Association and she is serving in the Advisory Council of the Society for Computational Economics. She is an Associate Editor of the B.E. Journal of Macroeconomics. Professor Lambertini has been a consultant with the ECB, the Federal Reserve Bank of Richmond and Hoover National Fellow. Her research focuses on the interaction of monetary and fiscal policies; on introducing housing and mortgage default in macroeconomic models; on the analysis of regulation and macroprudential policies in models with financial institutions.

### Heike Schweitzer

### Affiliated Professor



Professor Dr. Heike Schweitzer, LL.M. (Yale) has held the Chair for Civil Law, German and European Commercial and Competition Law and Economics at the law faculty of Humboldt University Berlin since April 2018. She is a

renowned expert in those fields and a special advisor to EU commissioner Margrethe Vestager for digitalization and competition policy. Besides competition law, the European law on the economic system, state aid law, the law on digital markets as well as the financial market law are among her main research areas. From 2006 to 2018, she taught at the universities of Florence and Mannheim and at Freie Universität Berlin. Heike Schweitzer is a member of the Kronberger Kreis. he contributed significant parts to the standard-setting commentary on the "Grundgesetz", the German federal constitution, edited by Michael Sachs, particularly concentrating on the sections about central banks, government finances, and fiscal federalism.

### **Maik Wolters**

### Affiliated Professor



Maik Wolters has held the Chair of Monetary Economics and International Financial Markets at the University of Würzburg since April 2020. From 2017 until March 2020, he was a Professor of Macroeconomics at Friedrich Schiller University Jena and

from 2012 until 2017, he was a Junior Professor of Macroeconomics at Kiel University. His research interests are macroeconomics, monetary economics and international economics. In 2010 Wolters graduated from Goethe University's Ph.D. program where he had also gained a M.Sc. in quantitative economics previously. He was also involved in the MMCI project and coordinated the model forecasting competition. Wolters is also a Research Fellow at the Kiel Institute for the World Economy (IfW).

### **Pre-Docs and Post-Docs**

All chairs at the IMFS contribute to the training of doctoral students within the structured Ph.D. and doctoral programs. Doctoral and post-doctoral training at the IMFS also focuses on providing a productive research environment for post-docs who were either hired as research assistants or received external funding to work temporarily at the IMFS. Many doctoral candidates work as research assistants in IMFS research projects.



Gregor Böhl held a Post-Doc position at the IMFS from June 2017 to February 2020. His research focuses on financial fragility, monetary theory and inequality with emphasis on heterogeneity and nonlinearities. In 2017,

he completed his Ph.D. thesis at the University of Amsterdam and Bielefeld University, supervised jointly by Cars Hommes and Herbert Dawid. During that time, he was financed by a scholarship from the Bielefeld Graduate School in Economics and Management. Previously, he held a scholarship from the German Research Foundation. Gregor obtained his MSc in economics from the University of Granada (top of class) and studied economics at Humboldt University Berlin at undergraduate level. He has worked as a professional guitar player, and as an IT consultant for several startup companies. From November 2018 until February 2019, he was a Visiting Scholar at Stanford University. Currently, Gregor is a Post-Doc at the University of Bonn.



Alexander Dück joined the IMFS in November 2019. Currently, he is a fourth-year student at GSEFM at Goethe University. In 2020, he assisted in the Ph.D seminar "Macrofinancial Modeling and the Coronavirus Pandemic".

Before joining the Macroeconomic Model Data Base (MMB) team, he worked as a research assistant in the Department of Money and Macroeconomics of Goethe University. During his studies at GSEFM he received a scholarship (Deutschlandstipendium) for two years. Alexander completed his Bachelor's degree at Goethe University where he was involved in teaching undergraduate students in Mathematics and Business Informatics for nearly three years. Apart from that, he was on the Dean's List for excellent academic performance. His research interests lie in the fields of non-linear modelling, Bayesian estimation and machine learning.



Dr. Iwona Matylda
Grandjean joined the
Chair of Public Law,
Economic and Currency
Law, Financial Markets
Regulation and Legal
Theory at the IMFS
from May 2020 until
September 2020. She
completed her Ph.D. in

August 2020. Her dissertation analyses to which extent requirements to separate commercial banking from investment banking contribute to the avoidance of systemic risks, and to what extent these requirements are compatible with models of holding company organisations. She completed her law studies with the first state examination in Frankfurt am Main. After her studies, she worked as a research assistant at the Goethe University and at the Institute for Financial Research SAFE. She then completed

the second state examination. During her legal internship at the Regional Court Frankfurt am Main she worked as a trainee lawyer and later as a research assistant in a major international law firm. Her research interest lies in the fields of market regulation, financial stability and law and finance.



Chihchun Huang joined the IMFS in December 2018. Before starting his Ph.D. coursework and assisting the team of the Macroeconomic Model Data Base, he was an analyst for an equity research firm and the Intelligence

Unit of The Economist in New York City. Chihchun received his MA in Politics from New York University and MSc in Economics from the University of Warwick. Trained as a journalist in college, Chihchun wrote an ethnography about New York City and the book was published in Taiwan, where he grew up. His research interests are the applications of DSGE and macroeconometrics on monetary policy and international macroeconomics.



Lazar Milivojević formed part of the IMFS from April 2017 until the end of 2020. As a member of the Macroeconomic Model Data Base (MMB) team, he was responsible for the further development of the

platform. Additionally, as a teaching assistant he supported the seminar "Macro-Financial Modeling and the Coronavirus Pandemic" in 2020, and the courses "Monetary and Fiscal Policy Theory and Practice" in 2017 and 2019, and "Business Cycles: Theory and Policy" in 2018. Lazar spent summer 2018 working on a project within the World Bank in Washington

DC. From June until December 2020, he was a trainee at the European Stability Mechanism in Luxembourg, and a sixth-year Ph.D. student at the Graduate School of Economics, Finance and Management (GSEFM) at Goethe University. Lazar comes from Serbia, where he completed his undergraduate studies in economics and master studies in econometrics at the University of Belgrade. His research interests are in the area of applied macroeconomics. In 2021, Lazar took up a position as economist with the World Bank.



Maie Mörsch joined the Chair of Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory at the IMFS in November 2018. She is currently pursuing her Ph.D. in Public Law and Financial Law. She

completed her law studies with the first state examination in Frankfurt am Main. During her studies she completed stays abroad in Switzerland and Scotland. She worked as a research assistant in several major international law firms. Her research interest lies in the fields of public finance in connection with inequality, with a special focus on the effects of public debt on the realization of human rights.



Ioanna Pigkou joined the Chair of Financial Markets Macroeconomics in September 2018. She currently pursuing Ph.D. her at the Graduate School of Economics, Finance and Management at Goethe University. Her research

interests lie in the fields of monetary and fiscal economics as well as in computational methods. Together with Alexander Meyer-Gohde, she is working on nonlinear perturbations aiming to develop techniques to provide accurate depictions on the interaction of macroeconomy and financial markets. Ioanna completed her undergraduate studies in mathematics at National and Kapodistrian University of Athens. She is also working as teaching assistant in macroeconomics and as research assistant in DSGE modelling at Deutsche Bundesbank.



Sandra Plicht is a research assistant at the Chair of Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory and Ph.D. student. She joined the institute in July 2018 and followed

Roland Broemel from Hamburg to Frankfurt to support his academic research. Sandra studied law at the universities of Greifswald (basic study), Copenhagen (semester abroad) and Hamburg (First State Examination). Her main research interests lie in the field of market regulation, in particular competition law and procurement law. At the moment, she is focused on the healthcare system but further research interests include telecommunications, media and energy. In her doctoral thesis, she is investigating the regulatory structure of rebate contracts for pharmaceuticals. Furthermore, she is interested in public security law and the legal aspects of digitalization. Sandra also has a teaching position at the Universities of Applied Police Sciences in Hamburg and in Mühlheim. Recently, she taught police law and European law and international law.



Jessica Ray joined the Chair of Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory at the IMFS in June 2020. She is currently pursuing her Ph.D. Prior to this, she completed her first state

examination at Goethe University, specializing in Law and Finance. During her studies, she worked for the International Bankers Forum e.V., the largest privately initiated professional association of the banking and finance industry in Germany. Her research interest lies in the field of banking supervision law and legal aspects of digitalisation. In her thesis she analyzes digitalization measures applied by financial service providers and the resulting regulatory challenges.

Johanna Saecker joined the Chair of Financial Markets and Macroeconomics in October 2018. She is a Ph.D. student at the Graduate School of Economics, Finance and Management (GSEFM) at Goethe University. She holds a M.Sc. in Economics and Financial Economics from the University of Nottingham, a M.Sc. in International Political Economy from the London School of Economics and Political Science (LSE) and a BA in International Relations from TU Dresden. She completed traineeships at the ECB's Directorate General International and European Relations (International Policy Analysis) and the European Commission's Directorate General for Internal Market, Industry, Entrepreneurship and SMEs (GROW). Furthermore, she has been a teaching assistant for Macroeconomics 2 since she joined the IMFS. Her research interest broadly lies in international economics and financial markets.



Zexi Sun started working at the IMFS in June 2020. He is now a doctoral student at Goethe University and also works at the Chair for International Macroeconomics and Macroeconometrics, mainly as a teaching

assistant. He is in charge of establishing the macroeconomic forecasting platform, which is designed for comparing and analyzing the forecasting performance of macroeconomic models. Zexi received an M.Sc. degree from the London School of Economics and a Bachelor degree from Wuhan University. In 2017, he was an intern at the Research Centre at Deutsche Bundesbank. His research interests lie in monetary economics and macro finance, and his recent research explores the effects of central bank's communication policies using natural language processing and machine learning methods.



Balint Tatar joined the Chair of Monetary Economics at the IMFS in May 2017. He completed his M.Sc. in economics at the University of Bonn and is presently working on his dissertation. He also holds a B.Sc. degree in mathematics from the

University of Bonn and a diploma in business administration from the University of Cologne. Before joining the IMFS, he worked as a teaching assistant in the Department of Money and Macroeconomics of Goethe University and was involved in teaching undergraduate students in macroeconomics. Prior to joining the Graduate School of Economics, Finance and Management, he was employed by

the Directorate General of Economic and Financial Affairs (DG ECFIN) of the European Commission. In parallel with his studies, Balint also worked as a part-time employee at HSBC Global Asset Management in Düsseldorf, the asset management division of HSBC Group. His research interests are in the field of applied macroeconometrics and DSGE models, and his research is broadly related to crises and monetary policy.

#### **Fellows**

By appointing IMFS Fellows, the Board of Directors aims to affiliate selected academics, researchers and practitioners from the areas of monetary policy finance and financial law with the IMFS. The appointment is for a period of three years.

IMFS Distinguished Fellows are exceptional individuals with great experience in policymaking institutions or in the financial sector who have made outstanding contributions to the IMFS and its activities in research and policy advice. There can be up to ten IMFS Distinguished Fellows at a time. They are nominated by the IMFS Managing Director and appointed by its Board of Directors.

IMFS Research Fellows are excellent scholars from other universities and institutions who collaborate closely with one of the IMFS professors. The IMFS offers its Research Fellows opportunities to get involved in IMFS research, policy advice and events and to make their own contributions to such IMFS activities. Each of the IMFS chairs can appoint up to six Research Fellows for a period of three years each. IMFS Research Professors appoint Research Fellows subject to approval by the IMFS Executive Board. Reappointment is possible.

#### **Theodor Baums**

Distinguished Fellow



Prof. Dr. Dres. h.c. Theodor Baums holds the Chair for Civil and Business Law at the Institute for Law and Finance (ILF) at Goethe University. He is also the founder of the ILF. He was the chairman of the Government

Commission on Corporate Governance, a member of the Advisory Board of the Federal Financial Supervisory Authority (BaFin), counsel to the EC Commission on company law, and ethics advisor to the management board of the Deutsche Bundesbank. He also served as member of the German government commission on the Corporate Governance Code. Prof. Baums is co-editor of several scientific journals and publication series. He has published more than 150 books and articles on corporations, civil and antitrust law. Prof. Baums has frequently advised the German Federal Government and Federal Parliament on questions concerning company and securities market regulation and was also an advisor for international organizations like the World Bank and the OECD. In 2006, he was awarded the Order of Merit 1st class of the Federal Republic of Germany. Prof. Baums studied law and Catholic theology in Bonn. After receiving his doctor juris he was a professor in Münster and Osnabrück before he came to Frankfurt in 2000. He is a Professeur associé of the University of Luxembourg as well as Dr. rer. pol. h.c. and Dr. iur. h.c. He has been a Founding Professor of the IMFS.

#### Willy Friedmann

Distinguished Fellow



Dr. Willy Friedmann served in different capacities in the areas monetary financial markets and trade at Deutsche Bundesbank from 1978 2009, and most recently as head of the economics department.

Before his service with Deutsche Bundesbank, he was in charge of monetary policy and financial markets at the German Council of Economic Experts. From 2009 until 2015, he was Chairman of the Foundation for Monetary and Financial Stability and a member of the IMFS Board of Trustees. During this time, Willy Friedmann was associated with Goethe University as member of the foundation's Board of Trustees.

#### **Hermann Remsperger**

#### Distinguished Fellow



Prof. Dr. Hermann
Remsperger was a
member of the Executive
Board of the Deutsche
Bundesbank from 1998
to 2009 where he was in
charge of the department
for economics and
statistics as well as the
research center. In 2006

he became responsible for all matters relating to the bank's international relations and represented the Bundesbank in the EU economics and finance committee, at the G7 and G20 meetings as well as the Financial Stability Forum. Previously, he was chief economist at BHF Bank. He was a lecturer and honorary professor at Goethe University from 1979 to 2014. As Chairman of the Council of the Foundation for Monetary and Financial Stability, he also served as Chairman of the IMFS Board of Trustees since its establishment. He retired from these roles in 2015. In 2016, he was awarded the Federal Cross of Merit 1st class.

#### Reinhard H. Schmidt

#### Distinguished Fellow



Prof. Dr. Dr. h.c.
Reinhard H. Schmidt is
Seniorprofessor at the
Department of Finance
of Goethe University,
focusing on financial
systems in industrial and
developing countries.
He is a member of the
European Shadow

Financial Regulatory Committee and author and editor of 25 books and 70 contributions to compilations and has published more than 60 scientific articles in national and international magazines. From 1991 to 2014, Schmidt held the Endowed Chair of Finance and Accounting at Goethe University.

#### **Gerhard Ziebarth**

#### Distinguished Fellow



Gerhard Ziebarth worked at Deutsche Bundesbank from 1986 to 2014 in various functions in the public finance division and the macroeconomic analysis and projections division of the economics department and most recently as head of

the statistics department. Previously, he was a member of the research staff of the German Council of Economic Experts. From 2015 to 2020, he chaired the Executive Board of the Foundation for Monetary and Financial Stability and was Chairman of the IMFS Board of Trustees. He was also a member of the Board of Trustees of the House of Finance and a member of the Board of Trustees of Goethe University Foundation. He is a member of *Aktionskreis Stabiles Geld* and is associated with Goethe University as a lecturer.

#### **Tobias Adrian**

#### Research Fellow



In 2017, Tobias Adrian took over as Financial Counsellor and Director of the Monetary and Capital Markets Department of the IMF. Previously, he had been a Vice President of the Federal Reserve Bank of New York and head of

the Capital Markets Function of the research and statistics group. In this capacity, he contributed to the New York Fed's financial stability policy and monetary policy briefings. His research covers asset pricing, financial intermediation, and macroeconomics. Adrian holds a Ph.D. in Economics from MIT and a M.Sc. from LSE. He also holds M.A.s in Economics from Goethe University and Dauphine University in Paris.

#### Günter W. Beck

#### Research Fellow



Günter W Beck is Professor for European Macroeconomics at University of Siegen and Research Fellow at the Center for Financial Studies. His research focuses macroeconomics, monetary economics.

and international economics. Before his appointment in Siegen, Beck was Professor at the University of Mainz. After gaining a Ph.D. from Goethe University in 2004, he worked as an Assistant Professor in Frankfurt. From 2015 until 2017, he organized the conference "The ECB and Its Watchers".

#### **Petra Geraats**

#### Research Fellow



Petra Geraats is а Senior Lecturer at Department of the **Economics** the at University of Cambridge. Her research areas include macroeconomics. international finance and behavioral

economics. She holds a Ph.D. in Economics from the University of California at Berkeley and a Master in Economics from Tilburg University. Her special interest lies in the transparency of monetary policy on which she has contributed to several publications, e.g. *The Oxford Handbook of Economics and Central Bank Communication, Decision-Making and Governance*. Currently, Petra Geraats is among the experts to evaluate the Central Bank of Chile. She was an advisor to the International Monetary Fund and an external expert for the Central Bank Studies group at the Bank for International Settlements.

#### Luisa Lambertini

#### Research Fellow



Luisa Lambertini is a Professor at the Ecole Polytechnique Fédérale de Lausanne, where she holds the Chair of International Finance. She received her Ph.D. in Economics from the University of California at Berkeley in 1995,

her Master of Science in Economics from the University of Warwick in 1989 and her Laurea cum Laude from the Universita' degli Studi di Bologna in 1987. Professor Lambertini's research focuses on the interaction of monetary and fiscal policies; on introducing housing and mortgage default in macroeconomic models; on the analysis of regulation and macroprudential policies in models with financial institutions. She has been a consultant with the European Central Bank and the Federal Reserve Bank of Richmond and Hoover National Fellow.

#### **Emanuel Mönch**

#### Research Fellow



Emanuel Mönch is Head of Research at Deutsche Bundesbank and Cooptation Professor for Monetary Policy and Financial Markets at Goethe University. He studied statistics at the École Nationale de la Statistique et de

l'Administration Économique (ENSAE) in Paris and economics at Humboldt University in Berlin, where he later gained his doctorate. From 2007 to 2015, Mönch had been working at the research group of the Federal Reserve Bank in New York. He also taught as a visiting professor at the prestigious Columbia University in New York.

The Research Centre of the Deutsche Bundesbank has over 50 members of staff, who carry out research on general economic topics and issues in the areas of banking supervision, financial stability and risk modelling. Mönch has published articles in numerous renowned academic journals and has very close connections in academic circles.

#### **Athanasios Orphanides**

#### Research Fellow



Athanasios Orphanides is a Professor of the Practice of Global Economics and Management at the MIT Sloan School of Management, Cambridge. He holds undergraduate degrees in mathematics and economics as well as

a Ph.D. in economics from the Massachusetts Institute of Technology. Orphanides served as Governor of the Central Bank of Cyprus from May 2007 to May 2012 and was a member of the Governing Council of the European Central Bank between January 2008 and May 2012. Prior to that, Orphanides was a Senior Adviser to the Board of Governors of the US Federal Reserve System. While at the Federal Reserve, he taught undergraduate and graduate courses in macroeconomics and monetary economics at Georgetown University and John Hopkins University.

#### Julia Redenius-Hövermann

#### Research Fellow



Julia Redenius-Hövermann is Associate Professor of Civil and Company Law at the Frankfurt School of Finance and Management. From December 2006 to July 2012, Redenius held the position of postdoctoral

research associate and lecturer at the Chair of Professor Theodor Baums at the Institute for Law and Finance, Goethe University. Before returning to her hometown Frankfurt, Julia Redenius worked as a research associate and lecturer at the Universities of Paris II-Assas and Paris XII-Saint Maur as well as an attorney at law in Paris. Redenius holds Master degrees in French, German, European and International Corporate Law from the University of Paris II-Assas and Munich as well as a Ph.D. (summa cum laude, Supervision: Professor Michel Germain) from the University of Paris II-Assas. She was admitted to the Paris Bar Exam.

#### **Heike Schweitzer**

#### Research Fellow



Prof. Dr. Heike Schweitzer, LLM. (Yale) has held the Chair for Civil Law, German and European Commercial and Competition Law and Economics at the law faculty of Humboldt University Berlin since April 2018. She is

a recognized expert in those fields and a special advisor to EU commissioner Margrethe Vestager for digitalization and competition policy. Besides competition law, the European law on the economic system, state aid law, the law on digital markets as well as the financial market law are among her main research areas. From 2006 to 2018, she taught at the universities of Florence and Mannheim and at Freie Universität Berlin. Heike Schweitzer is a member of the Kronberger Kreis and also an IMFS Affiliated Professor.

#### **Peter Tillmann**

#### Research Fellow



Peter Tillmann is Professor of Monetary Economics at the Justus Liebig University Giessen. His research focuses on monetary policy, empirical macroeconomics, financial markets. Before coming to Giessen in 2009, Tillmann was a senior economist at the Swiss

National Bank. He started his academic career at the Universities of Bonn and Edinburgh. In 2003, he gained a Ph.D. from the University of Cologne.

#### **Maik Wolters**

#### Research Fellow



Wolters Maik has held the Chair of Monetary **Economics** International Financial Markets at the University of Würzburg since April 2020. From 2017 until March 2020, he was a Professor of Macroeconomics

Friedrich Schiller University Jena and from 2012 until 2017, he was a Junior Professor of Macroeconomics at Kiel University. His research interests are macroeconomics, monetary economics and international economics. In 2010 Wolters graduated from Goethe University's Ph.D. program where he had also gained a M.Sc. in quantitative economics previously. He is currently involved in the MMCI and coordinates the model forecasting competition that is under way. Wolters is also a Research Fellow at the Kiel Institute for the World Economy (IfW).

#### **Mewael Tesfaselassie**

#### Visiting Researcher



From September 2019 until March 2020, Mewael F. Tesfaselassie was Visiting Scholar at the IMFS, in addition to his position as researcher and lecturer at Mannheim University. He holds a Ph.D. from

Tilburg University in the Netherlands. His current research focuses on monetary policy, endogenous growth and business cycles, and unemployment and the labor market. His academic field of interest encompasses monetary macroeconomics, open-economy macroeconomics, monetary and fiscal policies, and adaptive learning in macroeconomics. He collaborates closely with Maik Wolters, IMFS Research Fellow and Professor of Macroeconomics at Friedrich Schiller University Jena.

#### **Wooheon Rhee**

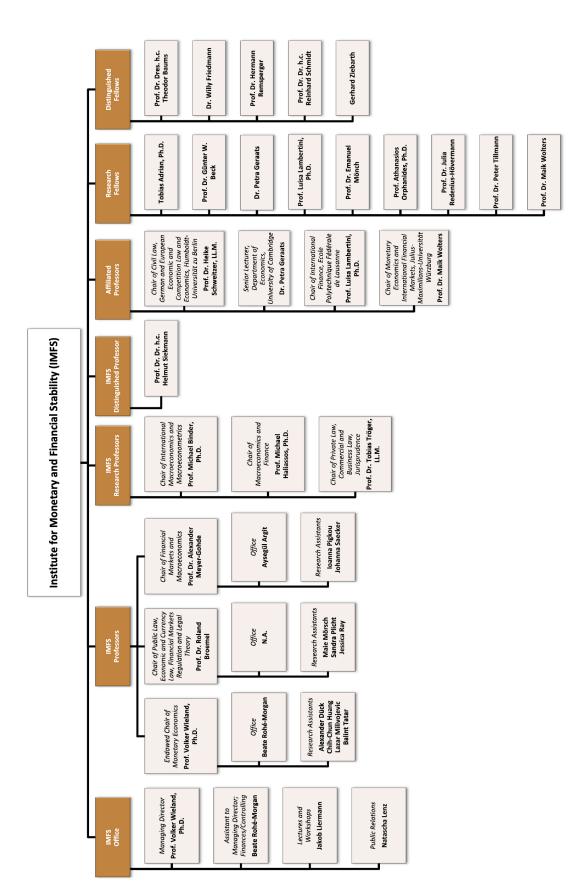
#### Visiting Researcher



From December 2019 until February 2020, Prof. Wooheon Rhee from Kyung Hee University in Seoul visited the IMFS. His research has mainly focused on the analyses of the Korean economy

based on DSGE frameworks. More specifically, he is interested in the effects of fiscal stimulus, financial factors and the macroeconomy and modelling of the Korean electricity market. He holds a Ph.D. in Economics from Yale University.

## VII. Organization Chart



12/2020

# Conversations with IMFS Researchers and Alumni



"I rely heavily on the experience and understanding of structural models I gained while working and researching at the IMFS"



Mátyás Farkas obtained his Ph.D. in Finance at the Graduate School of Economics, Finance, and Management at Goethe University in February 2020. Mátyás currently works in the ECB's Monetary Policy Strategy division as an

economist. In this position, he provides input to the Governing Council's regular monetary policy decisions and contributes to the ECB's strategy review. In September 2018, Mátyás joined the ECB's Graduate Programme, where he is worked in the Monetary Policy Research, Market Infrastructure Management and the Forecasting and Policy Modelling divisions. From December 2014 until his start at the ECB, Mátyás was an integral member of the Macro Model Base Team. He became the backend developer of the Macroeconomic Model Data Base, contributing to the platform's newly introduced compatibility under multiple operating systems and to its transmission into a web-based, platformindependent comparison tool and database. Mátyás also co-developed the real-time DSGE forecast comparison platform for the MMCN's forecast competition. His research focused on the role of expectation and monetary policy in DSGEs, on practical questions of DSGE estimation. The Hungarian-born researcher acquired his M.Sc. degree in Money and Finance from Goethe University in 2013. He pursued his undergraduate studies at Corvinus University Budapest and holds two Bachelor's diplomas, one in Finance and Accounting and one in International Relations.

### How would you describe your job to other people?

My job is, in layman's terms, to condense the insights of technical models into policy relevant simple messages. A key challenge of my work is to be able to anticipate and identify needs that will arise from the policy debate, and contribute with clear policy implications derived from complex models. In particular, my work is to find a translation of the current and future economic and financial challenges into a policy response supported by economic analysis and models.

#### What do you like most about your job?

The vast spectrum of issues to be addressed. I also enjoy that my work is central to the monetary policy decision making: I am directly exposed to the policy debate and working with outstanding, experienced economists of the field which provides plenty of opportunity to develop. I not only need to keep up with methodological advances, but integrate them to my analysis anticipating stakeholder needs. This usually translates into a thrill of finding the balance of exhaustive research and feasibility and timeliness.

### What was the main focus of your research at the IMFS?

My research at the IMFS had two foci, first, a theoretical one, studying the role of expectations, risks and unconventional monetary policy; second, a practical one, developing methods to estimate DSGEs and assess their forecast performance. My theoretical research shows that expectations and sources of risks are linked to (unconventional) monetary policy. As an example, I would mention our paper with Michael Binder and Volker Wieland. In it we studied the impact of heterogeneous, higher-order beliefs on business cycle dynamics; highlighting that diverse beliefs can become an endogenous source of risk to the economy and showed that heterogeneous expectations models can be solved using rational expectations solution techniques.

My job market paper was also a theoretical endeavour. In it I combined adaptive learning with heterogeneous expectations to study efficacy of forward guidance and with it central bank credibility: providing a solution to the forward guidance puzzle. I showed that a model with endogenous belief switching, a form of adaptive beliefs, can both solve and nest the forward guidance puzzle: delivering the insight that self-fulfilling beliefs can be the result of central bank action.

On the second, practical workstream, I have been researching questions related to DSGE estimation: I have co-developed the real-time DSGE forecast comparison platform for the MMCN's forecast competition and co-authored the paper with Michael Binder, Zexi Sun, John Taylor, Volker Wieland and Maik Wolters "Forecasting the Great Recession in the United States: First Results from a Model Comparison Exercise".

Furthermore, in a joint paper with Bálint Tatár titled "Bayesian Estimation of DSGE Models with Hamiltonian Monte Carlo", published as IMFS Working Paper 144, we proposed a novel method to estimate DSGEs using the Hamiltonian Monte Carlo (HMC) method. We show that HMC is not only more efficient than the benchmark Random Walk Metropolis Hastings method, it enables to identify estimation inefficiencies and problems, like multimodality, at the level of individual structural parameters. We show that the original Smets Wouters model features a second mode where monetary policy has lower efficacy, one that standard estimation methods so far were unable to show.

### How is your job at the ECB related to your work at the IMFS?

In my day to day work I rely heavily on the experience and understanding of structural models I gained while working and researching at the IMFS. As an example, I could bring the insights from the model comparison of the MMB: the knowledge of a huge collection of DSGE

models makes me well suited to address policy questions. In particular, my experience with robust monetary policy rules helps with aspects of the strategy reviews, like optimal policy designs and the role of backward-looking expectations. Furthermore, my software development skills of coding, testing, documenting, all acquired on the job at the IMFS, come very handy when we productify analysis supporting the policy decisions.

### What did you enjoy most regarding your time at the IMFS?

I appreciate the intellectual freedom and the opportunities for self-development I experienced at the IMFS. The IMFS as a research institute excelled at providing possibilities to explore challenging questions. For example, entasking Ph.D. students with difficult tasks coupled with an outstanding team to support the work was and continues to be the IMFS's recipe for success. I enjoyed the sprawling exchange with colleagues at the IMFS, the hours we brainstormed and worked through to test ideas and show proofs of concept.

Lastly, I also enjoyed the educational aspect of the work at the IMFS: I was expected to learn DSGEs and develop them at the same time, this fostered understanding beyond what is expected at on the job learning, but what is a prerequisite for a serious research contribution.

# "All researchers of the IMFS were gladly open for a scientific discussion"



Dr. Iwona Grandjean joined the Chair of Public Law, Economic and Currency Law, Financial Markets Regulation and Legal Theory of Prof. Dr. Roland Broemel at the IMFS in May 2020 and graduated with a

Ph.D. from Goethe University in August 2020. In December 2020, she started to work as a lawyer at the international law firm Weil, Gotshal & Manges LLP in the Restructuring Department of the Frankfurt office where she advises companies, managers and investors in multinational restructurings as well as insolvency proceedings. After she completed her law studies with the first state examination in Frankfurt am Main she worked as a research assistant at the Goethe University at the former chair of Prof. Dr. Brigitte Haar where she was pursuing her Ph.D. studies on banking supervision law. In 2019 she completed her second state examination in Frankfurt am Main and worked as a research assistant in an international law firm. She was admitted to the bar in 2020.

### How would you describe your job to other people?

My job as a lawyer at Weil, Gotshal & Manges LLP in the Restructuring Department focuses on multinational restructurings as well as insolvency proceedings. This area is particularly exciting due to its complexity. On the one hand, the field is not limited to one area of law, but requires an interdisciplinary view of the client's needs. Beside general civil and insolvency law, complex finance matters also play a role. On the other hand, a basic understanding of economics is needed as well. It's a versatile job in an international environment. I really enjoy my work, especially because of the structure of the firm. Despite being a large law

firm, Weil, Gotshal & Manges LLP has a boutiquelike structure with great communication between the departments.

### What was the main focus of your research at the IMFS?

During my time at the IMFS, I finalized my doctoral thesis. My study analyzes to which extent requirements to separate commercial banking from investment banking contribute to the avoidance of systemic risks within the framework of macroprudential regulation, and to what extent these requirements are compatible with models of holding company organization. My focus lay on the legal assessment of developments in the banking sector with regard to the separation of commercial banking and investment banking. By including holding organizations in my study, I also had the opportunity to examine economic principles at the corporate level and synergy effects.

### How is your job related to your work at the IMFS?

A major similarity that characterizes both my job and the IMFS is the possibility of working interdisciplinarily.

### What did you enjoy most regarding your time at the IMFS?

I had the opportunity to work in an academic, ambitious and interdisciplinary environment. In the process of finalizing my doctoral thesis, I was not only able to continue pursuing my own research agenda, but also to benefit from the support of Prof. Dr. Roland Broemel and Prof. Dr. Dr. h.c. Helmut Siekmann and their scientific perspectives. Furthermore, all researchers of the IMFS were also gladly open for a scientific discussion. IMFS is a great platform that facilitates the networking between academic researchers, policymakers and financial agents. The conferences and events organized by the IMFS are a great opportunity to get in touch with different topics from a legal, economic and finance view.

# "At the IMFS, I enjoyed working in an atmosphere of creativity and high motivation"



Georgios Georgiadis is a senior economist in the ECB's International Policy Analysis Division in the Directorate General International & European Relations. In 2006 Georgios took up his studies at Goethe University and in 2012

obtained his Ph.D. in Economics, advised by Michael Binder and Thomas Laubach. After that, he started working as an economist in the ECB's International Policy Analysis Division.

### How would you describe your job to other people?

I have been an economist in the international department of the European Central Bank since 2012. I contribute to the department's work of monitoring global financial markets in terms of exchange rates, capital flows, risky asset and commodity prices, carrying out research on spillovers, global imbalances as well as the evolution of the international monetary system, and coordinating the preparation of briefings for ECB Board Members for their participation in international high-level meetings.

### What was the main focus of your research at the IMFS?

At that time, I was working on my doctoral thesis, which was concerned with the development of new econometric methods for the analysis of cross-country data. For example, one of the projects I was working on examined the question why monetary policy has different effects in, say, the U.S. and the euro area. To do so, I developed a framework that allowed me to exploit cross-country data to explore how an economy's labor

market rigidities and financial market structure shape monetary policy transmission.

### How is your job related to your work at the IMFS?

Most of the tools and knowledge about data structures I routinely rely on in my every-day work at the ECB I acquired during my time at the IMFS.

### What did you enjoy most regarding your time at the IMFS?

There are many things I appreciate about my time at the IMFS. The most important may have been the dynamism and curiosity of colleagues which generated an atmosphere of creativity and high motivation.

### **Teaching Concept and Activities**



#### Prof. Michael Binder, Ph.D.

### Macroeconomics 1

(Winter Semester 2019/20, Winter Semester 2020/21, 12 CP)

This is a large-scale course in the Bachelor program of the Faculty of Economics and Business. The primary purpose of this course is to enable participants to develop a first thorough understanding of macroeconomic measurement and macroeconomic theory. In particular, the course discusses the macroeconomic accounts and develops a contemporary modelling framework to analyze macroeconomic outcomes in the short, medium and long run. This modelling framework in turn provides the basis for this course to discuss some of the macroeconomic issues that are the subject of the current public debate.

One of the distinguishing features of this course are its innovative Excel-based workbooks that make the quantitative analysis of dynamic, partially nonlinear, business cycle and growth models accessible to second-year undergraduate students. For example, students with the help of these workbooks can quantitatively analyze the effects of changes in monetary and/or fiscal policy on macroeconomic aggregates. The distribution of these workbooks occurs under the Creative Commons licensing standard, and thus encourages students to share with each other their work on the course and beyond. In 2020, calculations on the effects of the coronavirus pandemic were integrated in the course (see p. 14).

# 2 Introduction to Econometric Forecasting: Predicting Exchange Rates

(Winter Semester 2019/20, 5 CP)

This course provides (i) a thorough yet accessible presentation of some of the key models and methods that econometrics currently has to offer for the analysis of exchange rates, and (ii) the application of these models and methods to the forecasting of exchange rates. Many of the course's classes involve empirical illustration

of the models and methods discussed in STATA on the basis of the most recently available data, enabling course participants to do independent, theory- based empirical work using time series data as arising in many areas of finance and macroeconomics.

The course covers the use of a broad range of reduced-form and theory-based models for the forecasting of exchange rates, including autoregressive moving average (ARMA) models, autoregressive integrated moving average (ARIMA) models, autoregressive fractionally integrated moving average (ARFIMA) models, vector autoregressive (VAR) models, vector error correction (VEC) models as well as rational expectations present value (REPV) models.

### Solution, Identification and Estimation of DSGE models

(Winter Semester 2019/20, Winter Semester 2020/21, 4 CP)

This course is part of the field course offerings in macroeconomics and econometrics of the Ph.D. programs at GSEFM. It encompasses an in-depth discussion of issues in the econometric analysis of Dynamic Stochastic General Equilibrium (DSGE) models: model solution, model identification and model estimation.

A special focus of the course is on the issue of the possible multiplicity and time-variation of model solutions, issues that various software packages at present cannot yet address. The course thus engages its participants in building up a library of routines that allow to go beyond such limitations in the empirical analysis of structural macroeconomic models.

To reflect the course's use of a variety of software packages and programming environments as part of implementing the model solution, identification and estimation methods discussed, its examination is pioneering within the Ph.D. programs of GSEFM the mixed use of a traditional closed-book, paper-based examination format

with the hands-on use of MATLAB and STATA during the examination, to carry out numerical work on the solution, identification and estimation of DSGE models as part of the examination.

#### Organization of Pre-Semester Courses in Mathematics, Statistics and Econometrics for First-Year Students of GSEFM

(Winter Semester 2019/20, Winter Semester 2020/21)

These courses help students with mastering the transition from Bachelor and Master programs to the analytical and quantitative rigor of GSEFM Ph.D. program courses. The course contents are developed in collaboration with upper-year Ph.D. program students (who also serve as course instructors), and include coverage of elements of real analysis, linear algebra, optimization, statistics and linear regression, all accompanied by programming components in MATLAB and STATA.

# Orientation Sessions for First-, Second- and Third-Year Students in the Ph.D. Programs of GSEFM

(Winter Semester 2019/20, Winter Semester 2020/21)

# Econometrics 2 with Prof. Uwe Hassler (Part 1)

(Summer Semester 2020, 8 CP)

This course is part of the first-year MSQ/Ph.D. Program. The second part of the course studies vector autoregressions, vector error correction models and autoregressive distributed lag models, both in time-series and panel data settings. A specific focus is on understanding how these models allow economists to address issues of regressor endogeneity, and how they may learn through these models about dynamic adjustment processes even when the number of time series observations may be small. While a sizeable fraction of class time is devoted to learn about the relevant methodological aspects,

the course also features hands-on applications involving empirical use of various of the models and methods discussed. The applications are based on STATA routines. Beyond covering the relevant STATA command syntax, the applications also provide the opportunity to give in-depth consideration to issues of model formulation in empirical analysis, as well as to the adequate interpretation of empirical results.

### Supervision of Theses at the Bachelor, Master and Ph.D. Levels

(Winter Semester 2019/20, Summer Semester 2020, Winter Semester 2020/21)

#### **Prof. Dr. Roland Broemel**

The European Banking Union
Block seminar with Prof. Helmut
Siekmann and Prof. Volker Wieland

(Winter Semester 2019/20)

This colloquium gave an introduction to the basic structures of financial market regulation under public law. There was a focus on microprudential supervision of individual credit institutions as well as the macroprudential supervision in order to ensure financial stability. A second major focus was the regulatory framework for activities of so-called non-banks and fintech companies.

### Digitization as a Legal Challenge

(Winter Semester 2019/20, block seminar)
Topics:

- Rechtliche Rahmenbedingungen der virtuellen Währung Libra
- IT-Sicherheit als Anforderung an Kreditinstitute
- Social Bots als Gefährdung der freien individuellen und öffentlichen Meinungsbildung?
- Intermediäre als Anknüpfungspunkt medienund kartellrechtlicher Regelungen
- Angebote der öffentlich-rechtlichen Rundfunkanstalten im Internet
- Abgestimmte Verhaltensweisen durch die Verwendung von Algorithmen
- Kartellrechtlicher Rahmen algorithmenbasierter Preissetzung
- Regelsetzung auf Plattformen Spielräume der Plattformbetreiber
- Missbrauchskontrolle auf digitalen Märkten
   Vorhandener Regelungsrahmen und möglicher Reformbedarf
- Datenschutzrechtlicher Rahmen algorithmenbasierter Korrelationen (Big Data)

- Rechtlicher Rahmen algorithmenbasierter Entscheidungen
- Connected cars Datenschutz und Regelung der Datenverwertung
- E-Government Ansätze und Rechtsfolgen
- Verbraucherschutz bei algorithmenbasierten Anwendungen
- Diskriminierungen durch algorithmenbasierte Anwendungen als Rechtsproblem
- Effektiver Rechtsschutz über Algorithmen? Algorithmenbasierte Anwendungen bei der Verfolgung individueller Rechtspositionen
- Smart contracts Vertragsgestaltung durch Code?
- Digitalisierung in der Entwicklung von Arzneimitteln
- Digitalisierung in der Heilbehandlung
- Transparenzanforderungen an Algorithmen
- Zulassungspflichten für algorithmenbasierte Anwendungen?
- Daten als Infrastruktur
- Eigentumsähnlicher Schutz an Daten?
- Ethische Anforderungen an algorithmenbasierte Anwendungen
- Konsequenzen der Digitalisierung für rechtswissenschaftliches Arbeiten und die rechtswissenschaftliche Ausbildung

Stable Coins and Central Bank Digital Currencies: Verknüpfungen virtueller und hoheitlicher Währungen with Prof. Alexander Meyer-Gohde

(Summer Semester 2020)

#### Topics:

 Funktionale Einordnung von Libra: Currency Board, money market exchange traded fund (ETF), Sonderziehungsrecht (SDR)? (ökon.)

- Bankenaufsichtsrechtliche Einordnung von Stablecoins (jur.)
- Akteursperspektive: Regulierung der Emittenten, Wallet-Betreiber oder Wechselstuben bei Stable Coins? (jur.)
- Systemische Risiken von stable coins am Beispiel Libra (ökon./jur.)
- Global Digital Currencies Optionen nationaler Aufsicht und internationaler Kooperation (jur.)
- Beeinträchtigung währungspolitischer Instrumente der Zentralbanken durch stable coins am Beispiel Libra (ökon.)
- Anforderungen der Bekämpfung von Geldwäsche und Terrorismusfinanzierung bei Global Digital Currencies (jur.)
- Daten als Teil des Geschäftsmodells von stable coins am Beispiel Libra (ökon.)
- Datenschutz als Teil der bankenaufsichtsrechtlichen Anforderungen an Stable Coins? (jur.)
- Die Libra Association Analyse des Geschäftsmodells des Betriebs einer Stable Coin (ökon.)
- Kartellrechtlicher Rahmen von stable coins am Beispiel Libra (jur.)
- Stablecoins, Mini Bots und das unionsrechtliche Verbot der Parallelwährungen (jur.)
- Zivilrechtlicher Schutz der Inhaberschaft von stable coins – de lege lata und de lege ferenda (jur.)
- Stablecoins Wirklich stabil? Volatilität von Stablecoins (ökon.)
- Anleger- und Verbraucherschutz bei stable coins (jur.)
- (Synthetic) Central Bank Digital Currencies als währungspolitisches Instrument (ökon.)
- Grundrechtlicher Anspruch auf Bargeld? (jur.)

### Verwaltungsrecht 1 (Administrative Law) with Priv. Doz. Nils Grosche

(Summer Semester 2020)

Introduction to the law of public administration: constellations of the state-citizen relationship, types and forms of action of the administration, conflicts under administrative law and legal protection against administrative action. In addition, basics of police and regulatory law, special powers, enforcement measures.

## Mock Exams in the Revision Course (First State Examination)

Macht- und Werteverschiebung durch
Algorithmen (Power and Value Shift
Through Algorithms)
with Prof. Christoph Burchard and Prof.
Indra Spiecker genannt Döhmann

(Winter Semester 2020/21)

This colloquium discusses algorithm-based power and value shifting and its consequences for legal scholarship in different facets. The colloquium embeds five lectures by specialists who address the impact of AI and algorithmic systems on various value systems, e.g., through standard setting, on democracy and collectives, on legal systems. Typical questions include: How does an interaction between human decisionmaking ideas and machine learning work? What changes are brought about by developments in probabilistics, etc.? What does this mean for our social system and its subsystems? Do we recognize new structures or a dissolution? Is the essence of our democracy changing? Will collectives be formed differently or will individuality have to be rethought? Following the keynote speeches, the participants will discuss with renowned experts. An introductory and closing event will place AI in its legal context.

#### Prof. Michael Haliassos, Ph.D.

### **1** Household Finance (Master Course)

(Winter Semester 2019/20, Winter Semester 2020/21, 6 CP)

This course presents topics on the new area of Household Finance, on the interface between Macroeconomics and Finance. This is not only an active area of frontier academic research, but also interesting and useful to people working in the financial sector, including central banks. The broad overall theme of the topics presented is household wealth management, namely analysis of household demand for assets and for loans. The course should appeal to a wide range of students, from those interested in understanding household preferences for financial products useful for financial sector jobs, to those who are more academically oriented and who want to study intertemporal portfolio selection in the face of labor income risk for which one cannot buy insurance.

# Research Topics in Household Finance (Ph.D. Seminar)

(Winter Semester 2020/21, block seminar, 6 CP)

This seminar encourages students to study frontier papers in household finance in depth, understand their strengths and weaknesses, and formulate a proposal for pushing household finance research forward through an own future project. Students are expected to present a recent research paper on household finance, discuss the presentation of another paper, and write a five-page proposal for a future paper of their own, in the area of household finance, following the template for DFG proposals. The seminar does not attempt to be encyclopedic. It focuses on some promising areas of recent research in the relatively new but very active field of Household Finance. The field is attracting particular attention by academics, policy makers, regulators, and practitioners in view of major developments, such as the demographic transition, financial innovation, and the recent financial crisis.

#### Topics:

- Asset allocation and debt behavior over the life cycle
- Financing retirement and the demographic transition
- Consumer indebtedness, financial distress, and default decisions
- Behavioral approaches to household finance
- Financial literacy and financial education programs
- Trust, subjective expectations, pessimism, and financial decisions
- International comparisons of household finances using micro-data
- Financial advice and legal protection of investors and borrowers
- Financial innovation and household finances
- Households liquidity and risk management
- Climate change, sustainability, and household finances

### Thesis Research Seminar (Master Level) with Prof. Ester Faia

(Winter Semester 2019/20, Winter Semester 2020/21, 6 CP)

This seminar is designed to provide useful feedback to Master of Science in Money and Finance (MMF) students writing their Master thesis. This takes the form of suggestions from the instructor and the participants on possible directions to take, as well as the possibility to compare one's own work to that of the other participants. In this spirit, attendance of all sessions is mandatory for all students. Thesis advisors or their assistants are invited to participate in the seminar and several do so. As a result, the seminar can also serve as a way for advisors to provide feedback to their own supervisees. Students give two presentations related to their MMF Master Thesis. The first presentation serves as a thesis proposal. The second presentation discusses the main results of the thesis, show how they relate to the research question and to findings in closely related literature, and what use can be made of them.

### Job Market Seminar with Prof. Ester Faia

(Winter Semester 2020/21, 6 CP)

The students are followed and guided through the job market process. The main goal is how to learn to give a job market seminar, to prepare effective slides, to package the research papers, to give an effective interview and how to place the research agenda at the frontier of research.

## Topics in Household Finance (Bachelor Seminar)

(Winter Semester 2019/20, Winter Semester 2020/21, block seminar, 8 CP)

This seminar presents topics in the modern and rapidly growing area of Household Finance, on interface between Macroeconomics and Finance. This is not only an active area of frontier academic research, but also interesting and useful to people working in the financial sector, including central banks, commercial banks, insurance companies, and large brokers. The broad overall theme is household wealth management, namely analysis demand for assets and loans. Gone are the days when household portfolios consisted of a bank account and a home. Instead, people try to supplement the limited pension system given by the social security system and they are willing to undertake a lot more risk than before. Understanding what determines household asset and debt choices behavior is of paramount importance for academics and practitioners alike. This has been made much easier by the recent introduction of several data sources.

#### Topics 2020/21:

- How is the pandemic influencing household finances?
- Can pessimism alone explain stock market nonparticipation?
- Are households in the Eurozone countries with the highest income per capita wealthier than the rest?
- In what sense and why do the rich often put all their eggs in one basket?

- Is the development of fintech likely to encourage overtrading of stocks by households?
- Has the co-holding puzzle in credit card debt been resolved?
- Does the spread of Fintech lead to greater discrimination in mortgage lending?
- Does financial education improve financial literacy?
- Are lenders or borrowers to blame for the financial crisis in the US?
- Does one learn from, or simply imitate peers' financial behavior?
- How big is the need for consumer financial protection?

#### Prof. Dr. Alexander Meyer-Gohde

### Business Cycles: Theory and Policy

(Winter Semester 2019/20, Winter Semester 2020/21, 5 CP)

The course introduces students to two modern theories of business cycles: Real Business Cycle theory and New Keynesian theory. A standard Real Business Cycle model is formally stated and solved. Afterwards, a standard New Keynesian model is formally stated and solved. Finally, these two models are used for policy analysis. Students are supposed to learn how to state and solve modern business cycle models.

### Macroeconomics 2

(Winter Semester 2019/20, Winter Semester 2020/21, 6 CP)

The course provides an introduction to Advanced Macroeconomics at the undergraduate level, serving as a bridge between Intermediate Macroeconomics at the undergraduate level and graduate-level Macroeconomics. The first part of the course is about economic growth. The second part of the course is about business cycles. Knowledge of functions, derivatives, and constrained optimization, along with basic statistics is assumed.

# Advanced Macroeconomic Theory 2, Part 1 with Prof. Ester Faia, Ph.D. for Part 2

(Summer Semester 2020, 8 CP)

Part 1 of this course introduces students to the rigorous solution, estimation, and analysis of business cycle models. Numerical solution methods are compared in the analysis of the real business cycle (RBC) model and numerical estimation techniques introduced in the analysis of New Keynesian models. Thus, the course has a twofold focus on models and techniques.

### Bayesian Macroeconomics

(Summer Semester 2020, 4 CP)

This course introduces students to the foundations of Bayesian estimation in the context of macroeconomics. A rigorous treatment of the principles of Bayesian estimation and contrast with frequentist techniques forms the foundations to application to reduced-form and structural models of the macroeconomy. Topics such as linear regression, VAR, and DSGE models are examined through the Bayesian perspective.

### Monetary Theory and Policy

(Summer Semester 2020, 6 CP)

This course introduces students to the dynamic stochastic general equilibrium (DSGE) models used in modern monetary macroeconomics called New Keynesian models. The basic model equations including nominal frictions such as price stickiness are derived carefully, and model solution techniques are discussed. Numerical solutions of the models are obtained and the models are simulated and analyzed using Dynare in MATLAB. Possible extensions to the core model that may be treated in class include an analysis of optimal monetary policy. After completing the course, students should understand the dynamic mechanisms of nominal rigidities and the policy tradeoffs facing monetary policy. Mechanically, students will be able to derive, solve and simulate simple DSGE models and should be able to read

and understand more elaborate models found in the literature. Outline: Introduction, A Classical Monetary Economy, The Basic New Keynesian, Optimal Policy Design, Discretion versus Commitment.



Stable Coins and Central Bank Digital
Currencies: Verknüpfungen virtueller und
hoheitlicher Währungen
with Prof. Dr. Roland Broemel (s. p. 54)

(Summer Semester 2020)

#### Prof. Dr. Tobias Tröger, LLM

### Commcercial Law

(Winter Semester 2020/21)

The lecture is on commercial law, which is regulated in the 1st and 4th book of the Commercial Code. The focus is in particular on the concept of a merchant, the commercial register, the trading company, procuration and power of attorney, commercial agents and commercial transactions.

## 2 EBI International Summer School Banking & Capital Markets Law

(July 9-22, 2020, online seminar)

## **3** EBI Bank Resolution Academy, Florence School of Banking and Finance

(November, 2-20, 2020)

#### Prof. Volker Wieland, Ph.D.

### Monetary and Fiscal Policy: Theory and Practice

2<sup>nd</sup> Year Ph.D. and MSQE Course (Macroeconomics, 4 CP)

(Winter Semester 2019/20, 09.12.19 – 10.02.20, Winter Semester 2020/21, 16.12.20 – 17.02.21)

The objective of this course is to provide an introduction to the analysis of monetary and fiscal macroprudential policymaking with practical applications to current policy challenges. Examples from the European Union, the United States and Japan are discussed. Students develop theoretical models of monetary and fiscal policy and learn how different policy recommendations can be evaluated using these models. Students also conduct practical simulation exercises and make use of MATLAB-based software tools for model analysis.

- Introduction
- Monetary models and monetary policy rules
- Optimal Control and New Keynesian modelling: Inflation targeting and the ECB
- Quantitative easing and the zero bound on nominal interest rates
- Government budget constraints and monetary-fiscal policy linkages
- Fiscal stimulus and multiplier effects
- Government debt dynamics and fiscal consolidation
- Financial accelerator, housing markets and macro-prudential regulation

# The European Banking Union Block seminar with Prof. Roland Broemel and Prof. Helmut Siekmann

(Winter Semester 2019/20, 6 CP)

#### Topics:

 Europäische Finanzaufsichtssystem ESFS (European System of Financial Supervision) -Überblick und Darstellung seiner Aufgaben und Befugnisse (jur.)

- Die Bedeutung des European Stability
   Mechanism (ESM) bei der Rekapitalisierung von Banken (jur./ökon.)
- Die Gründe für die Schaffung der Europäischen Bankenunion (jur./ökon.)
- Grundkonzeption der Europäischen Bankenunion – Darstellung und kritische Würdigung (jur.)
- Bankenaufsicht durch Notenbanken –
   Vorteile und Nachteile (jur./ökon.)
- Darstellung des einheitlichen Europäischen Aufsichtsmechanismus (Single Supervisory Mechanism - SSM) (jur./ökon.)
- Vereinbarkeit der Verordnung zur Übertragung von Aufgaben in der Aufsicht über Kreditinstitute auf die Europäische Zentralbank (VO EU 1024/2013) mit Art. 127 Abs. 6 AEUV (jur.)
- Das Erfordernis demokratischer Leitung,
   Verantwortlichkeit und Kontrolle im Hinblick auf die Unabhängigkeit von Einrichtungen der Bankenaufsicht (jur.)
- Das Verhältnis der Europäischen Zentralbank (EZB) zur Europäischen Aufsichtsbehörde (European Banking Authority, EBA) (jur.)
- Makroprudenzielle Aufsicht über Banken in Europa – Institutionen, Instrumente und Verfahren (jur./ökon.)
- Der einheitliche europäische Abwicklungsmechanismus (SRM) (jur/ökon.)
- Sicherung der Zahlungsfähigkeit des Single Resolution Fund (SRF) durch staatliche Garantien (jur./ökon.)
- Die Schaffung einer Europäischen Einlagensicherung (European Deposit Insurance System, EDIS) als dritte Säule der Bankenunion (jur./ökon.)
- Verantwortlichkeit der Zentralbanken für die Finanzstabilität? (jur./ökon.)

# Macro-Financial Modeling and the Coronavirus Pandemic with Lazar Milivojevic

(Summer semester 2020, Ph.D. program seminar, 6 CP)

The purpose of this seminar is to give advanced doctoral students a hands-on introduction to frontier research in structural macroeconomic analysis and the development and application of structural macroeconomic models. The seminar consists of a combination of lectures, supervision of modeling projects, student presentations and group discussions with extensive feedback. Each project, which should ideally be pursued by a team of two students, involves studying an existing macroeconomic model from the literature. Students are guided in the development of a software implementation of the model in DYNARE with a policy application. At the end of the seminar, students should be able to start working on a dissertation project that involves structural macroeconomic modeling. Successful participation in this seminar is a precondition for the supervision of a dissertation at the chair.



### I. IMFS Working Papers

The IMFS Working Paper series helps disseminate the findings of IMFS researchers among the general public before they are published, for example, in scientific journals or policy publications.







#### No. 145 Lars P. Feld, Volker Wieland

The German Federal Constitutional Court Ruling and the European Central Bank's Strategy

#### No. 144 Mátyás Farkas, Balint Tatar

Bayesian Estimation of DSGE Models with Hamiltonian Monte Carlo

#### No. 143 Gregor Böhl, Felix Strobel

U.S. Business Cycle Dynamics at the Zero Lower Bound

#### No. 142 Gregor Böhl, Gavin Goy, Felix Strobel

A Structural Investigation of Quantitative Easing

#### No. 141 Karl-Heinz Tödter

Ein SIRD-Modell zur Infektionsdynamik mit endogener Behandlungskapazität und Lehren für Corona-Statistiken

#### No. 140 Helmut Siekmann, Volker Wieland

The Ruling of the Federal Constitutional Court concerning the Public Sector Purchase Program: A Practical Way Forward

#### No. 139 Volker Wieland

Verfahren zum Anleihekaufprogramm der EZB

#### No. 138 Francisco Gomes, Michael Haliassos, Tarum Ramadorai

**Household Finance** 

#### No. 145 Lars P. Feld, Volker Wieland

### The German Federal Constitutional Court Ruling and the European Central Bank's Strategy

The ruling of the German Federal Constitutional Court and its call for conducting and communicating proportionality assessments regarding monetary policy can also be used as a way to strengthen the independence of the ECB. The authors argue how a regular proportionality check could be integrated in the ECB's strategy.

#### No. 144 Mátyás Farkas, Balint Tatar

#### Bayesian Estimation of DSGE Models with Hamiltonian Monte Carlo

The authors adopt the Hamiltonian Monte Carlo (HMC) estimator for DSGE models by implementing it into a state-of-the-art, freely available high-performance software package. They estimate a small scale textbook New-Keynesian model and the Smets-Wouters model on U.S. data. Their results and sampling diagnostics confirm the parameter estimates available in existing literature. In addition they combine the HMC framework with the Sequential Monte Carlo (SMC) algorithm which permits the estimation of DSGE models with ill-behaved posterior densities.

#### No. 143 Gregor Böhl, Felix Strobel

#### U.S. Business Cycle Dynamics at the Zero Lower Bound

Using a nonlinear Bayesian likelihood approach that fully accounts for the zero lower bound (ZLB) on nominal interest rates, the authors analyze U.S. post-crisis business cycle dynamics and provide reference parameter estimates. They find that neither the inclusion of financial frictions nor that of household heterogeneity improve the empirical fit of the standard model, or its ability to provide a joint explanation for the post-2007 dynamics. Associated financial shocks mis-predict an increase in consumption. The common practice of omitting the ZLB period in the estimation severely distorts the analysis of the more recent economic dynamics.

#### No. 142 Gregor Böhl, Gavin Goy, Felix Strobel

#### A Structural Investigation of Quantitative Easing

Did the Federal Reserve's Quantitative Easing (QE) in the aftermath of the financial crisis have macroeconomic effects? To answer this question, the authors estimate a large-scale DSGE model over the sample from 1998 to 2020, including data of the Fed's balance sheet. The authors allow for QE to affect the economy via multiple channels that arise from several financial frictions. Their nonlinear Bayesian likelihood approach fully accounts for the zero lower bound on nominal interest rates. They find that between 2009 and 2015, QE increased output by about 1.2 percent. This reflects a net increase in investment of nearly 9 percent that was accompanied by a 0.7 percent drop in aggregate consumption. Both, government bond and capital asset purchases were effective in improving financing conditions. Especially capital asset purchases significantly facilitated new investment and increased the production capacity. Against the backdrop of a fall in consumption, supply side effects dominated which led to a mild disinflationary effect of about 0.25 percent annually.

#### No. 141 Karl-Heinz Tödter

Ein SIRD-Modell zur Infektionsdynamik mit endogener Behandlungskapazität und Lehren für Corona-Statistiken

(A SIRD Model for Infection Dynamics with Endogenous Treatment Capacity and Lessons for Corona Statistics)

Using an epidemiological SIRD model, extended by treatment capacity of the health care system, mechanisms and dynamics of a virus epidemic such as Corona are simulated by means of stylized political reaction patterns (Ignore, Shutdown, Ignore-Shutdown-Relax). Moreover, lessons will be drawn from the model for statistical analysis of the coronavirus pandemic, such as the significance of published doubling times and reproduction rates. The (dark) figure of unconfirmed cases and the accuracy of medical infection tests, which varies during the course of an epidemic, will be addressed. To measure the medical costs of corona, as well as for regional and international comparisons, an index of lost lifetime is proposed. Finally, the paper briefly discusses the economic costs of COVID-19 in Germany.

#### No. 140 Helmut Siekmann, Volker Wieland

The Ruling of the Federal Constitutional Court concerning the Public Sector Purchase Program: A Practical Way Forward

This paper summarizes key elements of the German Federal Constitutional Court's decision on the ECB's Public Sector Asset Purchase Program. It briefly explains how it is possible for the German Court to disagree with the ruling of the Court of Justice of the European Union. Finally, it makes suggestions concerning a practical way forward for the Governing Council of the ECB in light of these developments.

#### No. 139 Volker Wieland

#### Verfahren zum Anleihekaufprogramm der EZB

The Working Paper is based on the expert opinion of Volker Wieland on the ECB's PSPP program at the Federal Institutional Court on July 30, 2019.

### No. 138 Francisco Gomes, Michael Haliassos, Tarun Ramadorai Household Finance

There is increasing interest in applying lessons learned from household finance to the design of regulation, both within and across international borders. However, household financial decisions are complex, interdependent, and heterogeneous, and central to the functioning of the financial system. The authors present an overview of the rapidly expanding literature on household finance, beginning with the theory and empirics of asset market participation and asset allocation over the lifecycle. They discuss household choices in insurance markets, trading behavior, decisions on retirement saving, and financial choices by retirees and survey research on liabilities, including mortgage choice, refinancing, and default, and household behavior in unsecured credit markets, including credit cards and payday lending. They also connect the household to factors such as its social environment, cultural and hereditary factors, and financial literacy and suggest directions for future research.

### II. IMFS Interdisciplinary Studies

The IMFS Interdisciplinary Studies in Monetary and Financial Stability series presents interdisciplinary work resulting from research and policy analysis by institute members, external collaborators and research discussed at IMFS conferences.

#### Volume 1/2020

#### Contributions to the Strategy Review of the European Central Bank

The conference "The ECB and Its Watchers XXI" served as a listening event for academics in the ECB's strategy review. The study brings together contributions by Christine Lagarde (ECB), Jens Weidmann (Deutsche Bundesbank), Christian Noyer (Banque de France), Jordi Galí (CREI), Helmut Siekmann (IMFS), Pablo Hernández de Cos (Banco de España), Lucrezia Reichlin (LBS), Athanasios Orphanides (MIT), Claudio Borio (BIS), François Villeroy de Galhau (Banque de France), Otmar Issing (CFS), Petra Geraats (University of Cambridge), John B. Taylor (Stanford University) and Philip Lane (ECB) on the ECB's mandate, instruments and monetary policy strategy and discussions of the conference.



#### Volume 1/2017

#### Quantitative Easing in the Euro Area: Its Record and Future Prospects

Over the past years, the ECB's expansionary monetary policy has reached an unprecedented scale. The aim of the study is to shed some light on the risks and a possible exit strategy. It contains contributions by Peter Praet (ECB), Julian Callow (Element Capital), David Folkerts-Landau and Stefan Schneider (Deutsche Bank), Alex Cukierman (formerly Tel Aviv University) as well as Günter Beck and Volker Wieland.



#### Volume 1/2015

#### The ECB's Outright Monetary Transactions in the Courts

In this study the Outright Monetary Transaction (OMT) program of the ECB and the court case at the German Federal Constitutional Court are analyzed by the authors Christoph Degenhart (Constitutional Court of the Free State of Saxony and Leipzig University), Antonio Luca Riso (ECB), Harald Uhlig (University of Chicago) as well as Helmut Siekmann and Volker Wieland. The study was published on the occasion of the European Court of Justice's Advocate General summing up the OMT case.



#### Volume 2/2013

#### Central Banking: Where are we headed?

This study contains articles based on speeches at the symposium held in February 2013 in honor of Stefan Gerlach's contributions to the IMFS by the following authors: Michael Burda, Benoît Coeuré, Stefan Gerlach, Patrick Honohan, Sabine Lautenschläger, Athanasios Orphanides, and Volker Wieland.







#### Volume 1/2013

#### The ECB and Its Watchers 2012

This study contains articles based on speeches at the 14th CFS-IMFS Conference "The ECB and Its Watchers" on June 15, 2012, by Mario Draghi, John Vickers, Peter Praet, Lucrezia Reichlin, Vítor Gaspar, Lucio Pench and Stefan Gerlach and a post-conference outlook by Helmut Siekmann and Volker Wieland.

#### Volume 1/2012

#### The ESRB at 1

This volume contains articles based on speeches and presentations at the 5th IMFS Conference on Monetary and Financial Stability organized jointly with Société Universitaire Européenne de Recherches Financières (SUERF) on several aspects, such as macroprudential supervision and financial integration one year after the creation of the European Systemic Risk Board (ERSB) with speeches by central bankers and researchers.

### III. Publications

The paper "Financial Literacy Externalities" by Michael Haliassos and his co-authors Thomas Jansson and Yigitcan Karabulut appeared in the Review of Financial Studies. The authors used unique administrative data and a quasi-field experiment of exogenous allocation in Sweden to estimate medium- and longer-run effects of

The Review of Financial Studies of Productivity Stondard Studies Studi

people's exposure to financially literate neighbors on their financial behavior. They contributed evidence of a causal impact of exposure and of a social multiplier of financial knowledge and unfavorable distributional aspects of externalities. They come to the conclusion that exposure promotes saving in private retirement accounts and stockholding, especially when neighbors have economics or business education, but only for educated households and for substantial interaction possibilities. Findings point to a transfer of knowledge rather than mere imitation or effects through labor, education, or mobility channels.

In May 2021, Michael Haliassos, together with his co-authors, received the Hillcrest Best Paper Award 2020 in Behavioral Finance for this paper. The prize recognizes the top paper published each year in the Review of Financial Studies, one of the most prestigious finance journals, and is endowed with 5,000 US Dollar. Additionally, a paper by Michael Haliassos together with Nicola Fuchs-Schündeln titled "Participation following sudden access" was accepted for publication in the Journal of Monetary Economics, the leading journal in the field of monetary macroeconomics. Finally, a survey article on "Household Finance" by Michael Haliassos, Francisco Gomes and Tarun Ramadorai is forthcoming in the very prestigious Journal of Economic Literature.

Research by Lazar Milivojević, currently a doctoral candidate at IMFS, together with Robert Beyer, an IMFS graduate and economist at the World Bank, was accepted for publication by the *Review of Development Economics*. The paper titled "Fiscal policy and economic activity in South Asia" analyzes whether fiscal policy in South Asia amplifies or smoothens business cycle fluctuations. It estimates several econometric models to explore the cyclicality of government spending and tax buoyancy.

#### **Publications at a Glance**

### Articles in scientific journals in economics, finance, and law

	, , ,
AMG	(Un)expected Monetary Policy Shocks and Term Premia, co-author Martin Kliem, Journal of Applied Econometrics, forthcoming
LM	Fiscal Policy and Economic Activity in South Asia, co-author Robert C.M. Beyer, Review of Development Economics, Vol. 25, Issue 1, forthcoming in February 2021
МН	Financial Literacy Externalities, Review of Financial Studies, co-authors Thomas Jansson and Yigitcan Karabulut, Vol. 33, Issue 2, February 2020, p. 950-989
МН	Household Finance, Journal of Economic Literature, co-authors Francisco Gomes, Tarun Ramadorai, forthcoming
МН	Participation Following Sudden Access, Journal of Monetary Economics, co-author Nicola Fuchs-Schündeln, forthcoming
ММ	Ungleichheit – Effekte grundlegender Strukturen des Rechts am Beispiel der Corona-Pandemie (Inequality – Effects of Fundamental Structures of Law Using the Corona Pandemic as an Example), Kritische Vierteljahresschrift für Gesetzgebung und Rechtswissenschaft (KritV) (Critical Quarterly for Legislation and Law, CritQ) 2020, p. 157-188
RB	Zugang zu technischen Infrastrukturleistungen nach §58a ZAG (Zahlungsdiensteaufsichtsgesetz) neue Fassung, (Access to Technical Infrastructure Services), Recht der Zahlungsdienste (RdZ), Vol. 2/2020, 100-10
TT	Why MREL Won't Help Much, 21 J. Banking Reg. 2020, p. 64-81
TT	Verteilung der Aufsichtskompetenzen in der Bankenunion – Besprechung des Urteils des EuGH vom 8.5.2019 (Distribution of Supervisory Competences in the Banking Union - Discussion of the ECJ Ruling of 8.5.2019) – Rs C-450/17 Landeskreditbank Baden-Württemberg – Förderbank/Europäische Zentralbank, with Gerrit Tönnigsen, Zeitschrift für Bankrecht und Bankwirtschaft (ZBB) (Journal of Banking Law and Banking, JBB) 2020, p. 77-87
ТТ	Virtuelle Hauptversammlung 2020 und Aktionärsinteressen (Virtual Shareholder Meeting 2020 and Shareholder Interests), Betriebs-Berater (BB) 2020, p. 1091-1098
тт	Detecting Tail Risks to Preclude Regulatory Arbitrage: The Case for a Normatively Charged Approach to Regulating Shadow Banking, with Mathias Thiemann, Accounting, Economics and Law, Vol. 11, online available July 2020, forthcoming in July 2021
HS	Gerichtliche Kontrolle der Käufe von Staatsanleihen durch das Eurosystem, (Judicial Control of the Bond Purchases by the Eurosystem), Europäische

Zeitschrift für Wirtschaftsrecht (EuZW) 2020, p. 491-500

#### **Books**

RB Interaktionszentrierte Grundrechtstheorie (The Theory of Human Rights

Centered on Interaction), Jus Publicum, Mohr Siebeck, forthcoming in

May 2021

VW Overcoming the Coronavirus Crisis Together; Strengthening Resilience

and Growth, Annual Report 2020/21 of the German Council of Economic

Experts (GCEE)

VW The Economic Outlook in the Coronavirus Pandemic, Special Report of the

German Council of Economic Experts (GCEE)

#### Contributions to books

HS Monetary Aspects of the Euro as Single European Currency – a German

Perspective, in: Robert Freitag and Sebastian Omlor (eds.), The Euro as

Legal Tender, C.H.Beck, 2020

HS The Asset Purchase Programmes of the ESCB in the Courts, in: Frank

Rövekamp, Moritz Bälz, Hanns Günther Hilpert (eds.), Monetary Policy

Implementation in East Asia, Springer Nature, Cham, Switzerland, p. 87-142

RB Rezeptionsentscheidungen in der Rundfunkordnung (Reception Decisions

> in the Broadcasting System), Yoan Hermstrüwer, Jörn Lüdemann (eds.), Meinungsbildung im digitalen Zeitalter (Opinion Formation in the Digital

Age), Mohr Siebeck, 2020, p. 35-56

RBDie digitale Gesellschaft als Herausforderung für das Recht in der

> Demokratie. Eine Einführung (The Digital Society as a Challenge to the Legal Framework of Democracies. An Introduction), co-author Arne Pilniok, in: Roland Broemel, Arne Pilniok (eds.), Die digitale Gesellschaft als Herausforderung für das Recht in der Demokratie (The Digital Society

> as a Challenge to the Legal Framework of Democracies. An Introduction),

Mohr Siebeck, 2020

RBKommentierung der Art. 70, 71, 72, 73, 122, 123, 124, 125a, 127, in: von

Münch/Kunig, Grundgesetz-Kommentar, 7th edition, 2020

RB Kommentierung § 58a ZAG (Zahlungsdiensteaufsichtsgesetz), in: Frank

A. Schäfer, Sebastian Omlor, Jörg Mimberg (eds.), ZAG, C.H. Beck,

forthcoming in April 2021

RB Abwehr von Cyberbedrohungen (Prevention of Cyber Threats), in: Jan-

> Hendrik Dietrich., Matthias Fahrner, Nikolaos Gazeas, Bernd v. Heintschel-Heinegg (eds.): Sicherheits- und Staatsschutzrecht. Handbuch für die Praxis (Law on Security and State Protection, Practical Handbook), C. H.

Beck, forthcoming

RB	Regulating Virtual Currencies, in: Alexander Peukert (ed.), Law of Global Digitality, Routledge, forthcoming
RB	Commentary on Art. 137 TFEU (together with R. Meier), Art. 139 TFEU, Art. 142-144 TFEU, Protocol No 14-16 to the Treaty of Lisbon, Art. 6, 35 and 42 ESCB/ECB Statute, in: Helmut Siekmann (ed.), The European Monetary Union, forthcoming
RB	Europäisches Telekommunikationsverwaltungsrecht (European Telecommunications Administrative Law), Jörg Philipp Terhechte (ed.), Verwaltungsrecht der Europäischen Union (Administrative Law of the European Union), Nomos, 2 <sup>nd</sup> edition, forthcoming in 2021
RB	Das primäre Recht der wirtschaftspolitischen Koordinierung, in: Ulrich Hufeld, Christoph Ohler (eds.), Europäische Wirtschafts- und Währungsunion. Vol. 9 of Enzyklopädie Europarecht (Ecyclopedia on European Law), forthcoming in 2021
RB	Undergraduate Research in Legal Studies, in: Mieg/Ambos/Brew/Deicke/ Lehmann (eds.), The Cambridge Handbook of Undergraduate Research, with Olaf Muthorst, forthcoming in 2021
RB	Markt und Effizienz am Beispiel der Netzwirtschaften (Market and Efficiency Using the Example of the Network Industries), in: Michael Fehling, Georg von Wangenheim (eds.), Methodische Grundfragen der ökonomischen Analyse im Öffentlichen Recht (Methological Basic Issues of the Economic Analysis in Public Law), Mohr Siebeck, forthcoming in 2021
RB	Didaktische Formate im rechtswissenschaftlichen Studium (Didactic Formats in the Study of Law), in: Julian Krüper (ed.), Rechtswissenschaft lehren: Handbuch der rechtswissenschaftlichen Fachdidaktik (Teaching Law: Handbook of the Didactics of Legal Studies), forthcoming
RB	The Natural Rate and Its Role in Monetary Policy, in: Michael D. Bordo, John H. Cochrane, Amit Seru (eds.), The Structural Foundations of Monetary Policy, Hoover Press, March 2018
Π	Investorenschutz à l'ancienne – Bemerkung zur Regelung von Related Party Transactions im ARUG II (Investor Protection à l'ancienne - Comment on the Regulation of Related Party Transactions in ARUG II), in: Stefan Grundmann, Hanno Merkt, Peter Mülbert (eds.), Festschrift für Klaus Hopt, 2020, p. 1289-1301
Π	Marktdisziplin gegen Klimawandel – Veröffentlichungspflichten von Finanzmarktteilnehmern als Baustein der europäischen Strategie zur nachhaltigen Finanzierung (Market Discipline against Climate Change - Disclosure Obligations of Financial Market Participants as a Building Block of the European Sustainable Financing Strategy), in: Gregor Bachmann, Stefan Grundmann, Anja Mengel, Kaspar Krolop (eds.), Festschrift für Christine Windbichler, De Gruyter, 2020

TT §§ 446, 447 BGB, in: Beate Gsell, Wolfgang Krüger, Stephan Lorenz, Jörg

Mayer (eds.), beck-online, Großkommentar, C.H. Beck, München

TT §§ 118-120a AktG, in: Wolfgang Zöllner, Ulrich Noack (eds.), Kölner

Kommentar zum Aktiengesetz, Vol. 3, Carl Heymanns Verlag, Köln, 3rd

edition 2020

TT § 21 – Finanzdienstleistung, in: Reiner Schulze, André Janssen, Stefan

Kadelbach (eds.), Europarecht Handbuch für die deutsche Rechtspraxis (European Law Handbook for German Legal Practice), Nomos, Baden-

Baden, 4th edition 2020

VW Evaluating Rules in the Fed's Report and Measuring Discretion, co-authors

John H. Cochrane and John B. Taylor, in: John B. Taylor (ed.), Strategies for

Monetary Policy, Hoover Institution Press, 2020

#### **Editorships**

RB Die digitale Gesellschaft als Herausforderung für das Recht in der

Demokratie (The Digital Society as a Challenge to the Legal Framework of Democracies. An Introduction), co-editor Arne Pilniok, Mohr Siebeck, 2020

RB Gesamtes Recht der Unternehmen und Finanzen (The Entire Body of

Corporate and Financial Law), co-edited with Georg Hermes, Matthias

Jahn, Katja Langenbucher, Nomos, 2020

#### **Policy Papers**

TT Bank Capital and the European Recovery from the COVID-19 Crisis, co-

author Moritz Schularick and Sascha Steffen, Center for Economic Policy

Research, Safe Policy White Paper No. 69, June 2020

VW Kein Rückzug in die Festung Europa! (No Retreat to the Fortress Europe!),

Kronberger Kreis Study No. 66, co-authors Lars Feld, Clemens Fuest, Heike

Schweitzer, Berthold Wigger

#### **Working Papers**

BT Bayesian Estimation of DSGE Models with Hamiltonian Monte Carlo, co-

author Mátyás Farkas, IMFS Working Paper No. 144

MH Household Finance, co-authors Francisco Gomes and Tarun Ramadorai,

IMFS Working Paper No. 138

GB U.S. Business Cycle Dynamic at the Zero Lower Bound, co-author Felix Strobel, IMFS Working Paper No. 143

HS/VW The Ruling of the Federal Constitutional Court concerning the Public Sector Purchase Program: A Practical Way Forward, IMFS Working Paper No. 140

VW Verfahren zum Anleihekaufprogramm der EZB, IMFS Working Paper No. 139

VW The German Federal Constitutional Court Ruling and the European Central Bank's Strategy Review, co-author Lars P. Feld, IMFS Working Paper No. 145

AMG Alexander Meyer-Gohde LM Lazar Milivojevic RB Roland Broemel	
BT Balint Tatar MB Michael Binder TT Tobias Tröger	
GB Gregor Böhl MH Michael Haliassos VW Volker Wieland	
HS Helmut Siekmann MM Maie Mörsch	

# IV. Speeches and Conference Presentations

### Keynote and major public speeches

11.12.	Webinar	How Adequate is the Expansionary Monetary Policy of the ECB? Forum of Market Economy Foundation	VW
01.12.	Webinar	Lower for Longer? The Development of the Overall Economy in the last Ten Years, Symposium Financing of the Network for the Real Estate Sector, The New Normality in Financing	VW
11.11.	Webinar	The Decline in Euro Area Inflation and the Choice of Policy Strategy, ECB Forum on Central Banking 2020 on Central Banks in a Shifting World	VW



09.09.	Webinar	Economic Policy Responses to the COVID-19 Crisis in the Euro	VW
		Area and Japan, DIJ DWIH Web-Forum, German Institute for	
		Japanese Studies	
30.01.	Frankfurt	Growth or Slowdown – How the Downturn of the Economy	VW
		Effects the Construction Industry, Annual Kick-Off Event of	
		the Hessian and Thuringian Construction Industry	

## Speeches

03.12.	Webinar	Overcoming the Coronavirus Crisis Together, Goethe University – Economic Policy Course	VW
26.11.	Webinar	Overcoming the Coronavirus Crisis Together; Strengthening Resilience and Growth, European Central Bank	VW
17.11.	Webinar	Overcoming the Coronavirus Crisis Together; Strengthening Resilience and Growth, IKB	VW
16.11.	Webinar	Discussion about the New Economic Plan for Greece, Hellenic Observatory and Hellenic Association of Entrepreneurs	МН

VW	Frankfurt Financial Markets and Financial Stability in Challenging Times, Panel Discussion, Euro Finance Week 2020	16.11.
VW	Frankfurt What now, ECB? The Crisis Mode as the New Normal, Euro Finance Week 2020	16.11.
VW	Webinar Overcoming the Coronavirus Crisis Together, IMFS Policy Webinars	13.11.
HS	Frankfurt The ECB's Mandate: Does it Need to be Modified to be Fit for the Future, The ECB and Its Watchers, IMFS	30.09.
VW	Frankfurt Welcome and Moderation of the Conference The ECB and Its Watchers, IMFS	30.09.
LM	Webinar R star Track: Dynamics and Determinants of World Equilibrium Interest Rates; Ca' Foscari University of Venice; Mathematical and Statistical Methods for Actuarial Sciences and Finance (eMAF)	25.09.
AMG	Webinar Discussion of "SONOMA: A Small Open ecoNOmy for MAcrofinance" by Samuel Rosen, Max Croce, and Mohammad Jahan-Parvar. 7th SAFE Asset Pricing Workshop	23.09.
VW	Webinar Economic Policy Responses to the COVID-19 Crisis on the German and European Level, London Circle of the CDU Economic Council	01.09.
тт	Webinar The Case for a Normatively Charged Approach to Regulating Shadow Banking - Multipolar Regulatory Dialogues as a Means to Detect Tail Risks and Preclude Regulatory Arbitrage, Labex-NYU-SAFE/LawFin Law & Banking/Finance Conference 2020 – Webinar Series	14.07.
VW	Webinar The Corona Crisis and the Euro: Outlook, Policy Measures, and the Conflict of the Courts, Harvard Club Frankfurt	29.06.
AMG	Webinar (Un)expected Monetary Policy Shocks and Term Premia joint with Martin Kliem, IBEFA at the 95 <sup>th</sup> Western Economic Association International Annual Conference	27.06.
VW	Webinar The Corona Crisis and Its Economic Consequences, Volksbank Odenwald	25.06.
VW	Webinar The Corona Crisis: Economic Outlook and Fiscal Policy Measures, IMFS Policy Webinar	24.06.
VW	Webinar The Corona Crisis and the Euro: Outlook, Policy Measures, and the Conflict of the Courts, DNB Markets	16.06.
VW	Webinar Germany and the Monetary Union, UBS Knowledge Network	15.06.
HS	Webinar The Karlsruhe Ruling: Implications and the Way Forward, SUERF Webinar Series, Central Banking and Finance Forum	03.06.

02.06.	Webinar	The Corona Crisis and its Consequences – What Does the Economy Need for a Stable Future?, FES-Managers' group	VW
28.05.	Webinar	Current Outlook on the Economic Development in the Corona Pandemic, Rotary Club Friedensbrücke	VW
05.05.	Webinar	The Economic Situation in the Coronavirus Pandemic, CDU Economic Council	VW
30.04.	Webinar	Corona Crisis and Corona Bonds, CEPS	VW
28.04.	Webinar	Current Developments in the Corona Crisis, Bosch Strategy Group	VW
26.02.	Kaden	How Adequate is the Expansionary Monetary Policy of the ECB?, 8 <sup>th</sup> Kaden Talks, Market Economy Foundation	VW
17.02.	Frankfurt	Where is the ECB Leading Us? Handelsblatt Club Talk	VW
04.02.	Darmstadt	Friends or Rivals? The Transatlantic Relations in the 21st Century, Lead Presentation and Podium Discussion, Friedrich Naumann Foundation	AMG
17.01.	Helsinki	Dealing with Structural Change, Municipal Guarantee Board	VW





Alexander Meyer-Gohde	МН	Michael Haliassos
Helmut Siekmann	RB	<b>Roland Broemel</b>
Lazar Milivojevic	TT	Tobias Tröger
Michael Binder	VW	Volker Wieland
	Helmut Siekmann Lazar Milivojevic	Helmut Siekmann RB Lazar Milivojevic TT

# **Events**



## Conferences

20./21.02.

EBI Global Annual Conference on Banking Regulation

30.09.

The ECB and Its Watchers XXI

## **IMFS Policy Webinars and MMCN Webinars**

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08.04.	IMFS Policy Webinar, Volker Wieland, IMFS
16.04.	IMFS Policy Webinar, Veronika Grimm, German Council of Economic Experts
17.04.	IMFS Policy Webinar, Harald Uhlig, University of Chicago
04.05.	MMCN Webinar, Harald Uhlig, University of Chicago
06.05.	MMCN Webinar, Mathias Trabandt, Freie Universität Berlin
11.05.	MMCN Webinar, Daniel Gros, Centre for European Policy Studies (CEPS)
13.05.	MMCN Webinar, Werner Roeger, European Commission
18.05.	MMCN Webinar, Warwick McKibbin, Australian National University
19.05.	IMFS Policy Webinar, Philip R. Lane, ECB, Vítor Gaspar, IMF, Elga Bartsch, Blackrock, Francesco Giavazzi, Bocconi University, and Volker Wieland, IMFS
25.05.	MMCN Webinar, Gernot Müller, University of Tübingen
27.05.	MMCN Webinar, Luca Guerrieri, Board of Governors of the Federal Reserve System
03.06.	MMCN Webinar, Dirk Krueger, University of Pennsylvania
24.06.	IMFS Policy Webinar, Volker Wieland, IMFS
13.11.	IMFS Policy Webinar, Volker Wieland, IMFS



## I. Conferences

# 20./21.02. EBI Global Annual Conference on Banking Regulation

Together with the European Banking Institute (EBI), Goethe University, and the European Stability Mechanism (ESM), the IMFS organized the two-day EBI Global Annual Conference on Banking Regulation. Main topics of the sessions were transparency, market discipline and

disclosure in prudential regulation and resolution as well as sustainable finance. The keynote speech was held by Andrea Enria, chair of the Supervisory Board of the ECB. The panelists discussed the disclosure of stress test, key prudential ratio's and TLAC/MREL amounts: market confidence and expectations and disclosures of key prudential ratios and the relation to the market abuse regulation.



# 30.09. The ECB and Its Watchers XXI

In her first speech at the conference "The ECB and Its Watchers", Christine Lagarde clarified the key issues of the ongoing strategy review of the ECB. The ECB President emphasized that the euro area should have an inflation goal "that the public can easily understand" and which is calculated in a way that better reflects people's everyday lives. A policy of committing to make up for low inflation after missing the goal for a while "could be examined," she added referring to the strategy of the Federal Reserve that allows inflation to temporarily rise above the institution's target.

Due to the Coronavirus pandemic, Lagarde spoke to the conference in a video livestream. The 21st edition of "The ECB and Its Watchers" on September 30 took place in a hybrid format with only a few panelists and participants at the conference venue and most of the audience taking part remotely. The conference, organized by Volker Wieland, is integrated into the process of reviewing the ECB's strategy. Hence, the three panels, all chaired by central bank governors, investigated issues central to the review.



"The more widely we interpret our mandate, the greater the risk that we will become entangled with politics and overburden ourselves with too many tasks," Jens Weidmann, Bundesbank President, argued during the first panel on whether and how the ECB's mandate should be modified to be fit for the future. According to Christian Noyer, former governor of the Banque de France, moving to an average inflation target is "the worst change you could make". According to Jordi Galí of CREI and the University Pompeu Fabra, the ECB's two-pillar strategy was obsolete and rather a "distraction, instead of a useful tool". Focusing on the legal aspects, Helmut Siekmann, IMFS Distinguished Professor and former Endowed Chair of Money, Currency and Central Bank Law, explained that the word "mandate" was rather a weasel word and not part of the Primary Law, neither was the term "maintaining price stability".

During the second conference panel regarding ECB's instruments and the lessons from the financial crisis and the debt crisis chaired by Pablo Hernández de Cos, Governor of Banco de España, Lucrezia Reichlin of the London Business School pointed out that the credibility of inflation targeting was crucial. In the opinion of Athanasios Orphanides of the MIT

Sloan School of Business, the ECB is confronted with two urgent matters: adopting a clear, symmetric 2 percent inflation goal and correcting "fragility-inducing aspects" of the ECB's policy implementation strategy. Claudio Borio of the Bank for International Settlements (BIS) warned that unconventional monetary policies, such as balance sheet operations, forward guidance and negative rates, had been successful in supporting the economy, but had limitations and appear to exhibit diminishing effectiveness. Therefore, "building policy buffers is essential – in monetary policy just as in other areas. The challenge is now".



Otmar Issing, who conducted the last review of the ECB strategy as chief economist in 2003, stated that a review was overdue. However, he warned that "central banks should think twice before following the Fed". The Federal Reserve in the United States has undertaken a similar assessment and announced in August that it would be allowing inflation to run above its target of 2 percent for some time. François Villeroy de Galhau, who chaired the session, argued that "our inflation objective, being symmetric and medium-term, -- if credibly, I stress credibly, symmetric and medium-term -- would probably achieve similar outcomes ex-post to flexible average inflation targeting".

Petra Geraats of the University of Cambridge also adopted a critical attitude towards an average inflation target. She told the conference that this was "attractive in theory" but showed several shortcomings, such as creating uncertainty regarding the size and duration of the inflation overshoot or risking the unanchoring of inflation expectations, which would increase volatility. According to Geraats, the ECB should first focus

on improving fundamentals of the monetary union, namely creating a proper banking union with effective supervision and resolution and implementing macroprudential policy to manage risks of the loose monetary policy. John B. Taylor of the Hoover Institution and Stanford University saw the need to return to a monetary policy that works. "Monetary policy must return to a rules-based policy," he claimed.

In a wrap-up of the conference, Philip R. Lane of the ECB described the various workstreams of the strategy review where the conference findings would also be integrated. Results are not expected until September 2021. "We're still in the learning stage," Lane said. The ECB needed to come to a shared understanding of twenty years of monetary policy.

All contributions of the conference as well as the complete Q&A sessions are published in the IMFS Interdisciplinary Study 1/2020.



### Program: September 30, 2020

09:15 - 9:30 Welcome

**Volker Wieland (IMFS)** 

Birgitta Wolff (Goethe University)

09:30 - 10:15 **President's Address** 

Christine Lagarde (President of the European Central Bank)

Debate 1: The ECB's Mandate: Does It Need to Be Modified to Be Fit 10:15 - 11:45

for the Future?

Chair: Jens Weidmann (Deutsche Bundesbank)

Speakers:

Christian Noyer (Banque de France)

Jordi Galí (CREI)

**Helmut Siekmann (IMFS)** 

Lead questions:

Thomas M.J. Möllers (University of Augsburg)

Elga Bartsch (Blackrock)

Jörg Zeuner (Union Investment)

11:45 - 13:15 Debate 2: The ECB's Instruments for Crises and Normal Times

Chair: Pablo Hernández de Cos (Banco de España)

Speakers:

Lucrezia Reichlin (London Business School)

**Athanasios Orphanides** (MIT Sloan School of Manangement)

Claudio Borio (Bank for International Settlements, BIS)

Lead questions:

Katharina Utermöhl (Allianz)

**Ulrich Kater** (Dekabank)

Jari Stehn (Goldman Sachs)

13:30 - 14:30

Lunch

14:30 - 16:00 Debate 3: The ECB's Monetary Policy Strategy: Lessons From the

**Financial Crisis, Debt Crisis and Double Recession** 

Chair: François Villeroy de Galhau (Banque de France)

Speakers:

**Otmar Issing** (Center for Financial Studies)

Petra Geraats (University of Cambridge)

John B. Taylor (Hoover Institution, Stanford University)

Lead questions:

Dirk Schumacher (Natixis)

Julian Callow (Element Capital)

Sylvain Broyer (S&P Global Ratings)

16:00 - 16:30 **Conference Wrap-up** 

Philip R. Lane (European Central Bank)

# II. Policy Lectures and Webinars

The usual format of Working Lunches is an academic seminar that takes places between 12:00 and 1:00 pm, dealing with new research on legal, monetary and financial topics. Participants include Ph.D. students, IMFS professors and researchers, as well as professionals from central banks, financial institutes and law firms. In 2020, due to the Coronavirus pandemic, all events took place as webinars.

### 08.04.

# Volker Wieland, IMFS and German Council of Economic Experts

"The Economic Outlook in the Coronavirus Pandemic"

In view of the coronavirus pandemic the German economy is heading towards a bigger recession in the second quarter than during the financial crisis in 2009. In an IMFS Policy Webinar on April 8, Volker Wieland presented the scenarios of the German Council of Economic Experts' special report. According to the report, a shutdown of five weeks and a recovery of three weeks would be manageable. However, "at the moment it does not look like this is going to happen," Wieland warned. In comparison to the end of March – the publication date of the special report – the probability for a risk scenario with a pronounced V has increased.

The coronavirus pandemics at the same time hurts supply and demand. On the supply side of the economy, the supply chains were disrupted and industrial inputs for chemical products or in the engineering industries could not be delivered. On the demand side, the demand for services in tourism, for events or in the catering sector were reduced due to quarantine measures. Therefore, according to Wieland, a conventional stimulus package is not what is needed. "It is not a matter of stimulating demand but of maintaining capacities by offering loans and liquidity." In his view, a capital levy would also be the wrong measure, hurting mostly medium-sized companies. "This would counteract all rescue packages," Wieland warned. Instead, he called for discussing an exit strategy. "We have to establish rules for protecting our health as a basis for ramping up production again." He argued that a task force made up of experts of various disciplines could help in this process.

Wieland rejected the creation of mutualized debt that is discussed under the heading of "corona bonds". This would mean joint and several liability without direct control of spending incurred at the national level. It would likely lead to hard disputes between the member states, Wieland warned. He rather recommended to make use of the European Stability Mechanism (ESM). Regarding the conditionality of ESM loans, that is considered a negative stigma in member states such as Italy, he recommended that several states make use of a credit line at the ESM simultaneously. In Wieland's opinion, the interventions of the ECB that announced the Pandemic Emergency Purchase Programme (PEPP) on March 18 should remain a temporary crisis support measure. The ECB has delivered in advance of other measures by fiscal authorities and the European Union. It can only reduce the risk spreads on sovereign debt for a certain time, Wieland argued.

### 16.04.

# Veronika Grimm, German Council of Economic Experts

"The way out of the Corona shutdown: a riskadjusted strategy"

The contact ban is still in effect, many stores are about to open but it is not clear when most of the school kids will return to their classrooms – this applies all the more to kindergarten and nursery. The restrictions in economy and society due to the coronavirus pandemic have paralyzed Germany in large parts. What a strategy for a gradual opening could look like was the topic of an IMFS Policy Webinar with Veronika Grimm of Friedrich Alexander University Erlangen-Nürnberg.

First of all, flexibility is a decisive factor. "If the number of people infected gets out of control, you won't have two or three weeks to react," said Grimm, who is a Professor of Economic Theory and, since April, a proposed member of the German Council for Economic Experts. Together with an interdisciplinary group of fourteen scholars she has recently published a paper on a flexible and risk-adapted opening strategy.

Grimm argued that in the current lockdown various dimensions are important: the pressure on the economy, social hardships, and medical consequences. Therefore, the question when and how people can return to work can only be answered in a multidisciplinary way. For this reason, Grimm supports the implementation of task forces where researchers of various disciplines collaborate on a national and at the federal state level. These task forces are supposed to observe the impact of relaxations and regularly evaluate the situation and the appropriate reactions. In her view, a recommendation by a task force could be useful for policymakers when they have to defend their decisions. For Grimm, regionally different strategies due to different conditions based on the number of infected people and beds of intensive care available are justified. "However, rules based on certain indicators are important to minimize uncertainty," Grimm said.

Also from a company's perspective, clear frameworks and a certain period of preparation are necessary. "The better the preparatory measures, the more restrictions can be eased." According to Grimm, besides the risk of infection and the question of belonging to a risk group, further decisive criteria are the importance of an area about to be opened in economy and society and the implementation possibilities of protection measures. She argued that the number of those who are infected and can pass on the coronavirus to others but do not show symptoms is also very important.

In Grimm's opinion, digitizing the health system as fast as possible is an important instrument. In this context, she pointed out that the usual practice of using phone and fax among staff members of health authorities unnecessarily delays information processes. Also, app-based concepts for infection protection would be a significant step if they are accepted by the majority of people. A long, complete lockdown, which would also serve to avoid further waves of infection, is not conceivable at the moment. "Therefore, we will have to learn to live with protection measures for a long time and we will have to learn more about the coronavirus as fast as possible," Grimm concluded.

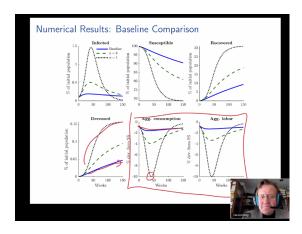
### 17.04.

### **Harald Uhlig, University of Chicago**

"COVID-19 and Economics: What the economic perspective can contribute"

For Prof. Harald Uhlig from the University of Chicago, the implementation of a national task force of at least 50 experts from various disciplines is essential in order to face the challenges of the corona crisis. In an IMFS Policy Webinar, he explained what economics can contribute.

Uhlig warned that the current situation could even deteriorate. In view of the economic slump, a possible threat for the banking system, a threatening overload of the health system and finally the imminent destruction of society, the economic perspective could be useful in order to solve difficult allocation and distribution problems. "The competence of economics lies within data analysis and handling dynamic models," Uhlig said. In the webinar, he gave on overview about recent research papers on the coronavirus crisis.



For example, researchers Jesús Fernandez-Villaverde and Chad Jones estimated the mortality figures in Italy at given times during the lockdown on the basis of a model often used by epidemiologists. Uhlig himself analyzed the change in behavior in an opening after a lockdown. Together with Dirk Krueger from the University of Pennsylvania and Taojun Xie from the National University of Singapore he found that there is a change in behavior of people who are afraid of getting infected. "They prefer pizza to go, enjoying it at home, or watching a soccer game on TV rather than going to the stadium". According to Uhlig, this shift to "low-infection goods" could help to prevent an economic slump and could lead to sectoral shifts on the labor market: "The waiter of the restaurant will deliver your pizza then".

Other scholars investigated how much politics should interfere in the corona crisis. In their calculations, economists Fernando Alvarez, David Argente, and Francesco Lippi compared the corona death toll with the extent of the economic downturn. Michael Greenstone and Visham Nigam of the University of Chicago calculated that the value of life in the United States by social distancing is worth 8.000 billion dollars. Andy Glover, Jonathan Heathcote, Dirk Krueger, and Victor Rios-Rull concentrated people's preferences. They examined the question how much lockdown people will tolerate depending on their age and job. On the other hand, Veronica Guerrieri, Guido Lorenzoni, Ludwig Straub, and Ivan Werning looked at the Keynesian supply shock.

Uhlig concluded with an urgent appeal to the federal government to make use of this diverse economic expertise pooling it together with insights from hospitals, companies and further research areas in a task force, which should be split up in respective working groups.

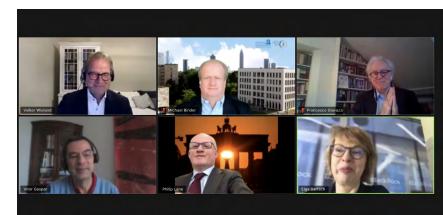
### 19.05.

Philip R. Lane, ECB, Vítor Gaspar, International Monetary Fund, Elga Bartsch, Blackrock, Francesco Giavazzi, Bocconi University, and Volker Wieland, IMFS

"Economic Outlook in the Coronavirus Pandemic and Policy Responses"

At the online event on the date when the conference "The ECB and Its Watchers" was originally scheduled, ECB Chief Economist Philip Lane explained the current monetary policy of the ECB, pointing out that the announcement of the PEPP program has successfully halted the tightening in financial conditions and contributed to a partial reversal in the trend. In his presentation, he made clear that the ECB was "fully prepared to further adjust our instruments if warranted". According to Lane, this included increasing the size of the PEPP and adjusting its composition, by as much as necessary and for as long as needed.

Looking at fiscal policy, Vítor Gaspar of the International Monetary Fund illustrated the strong increase in debt due to the corona crisis. According to IMF calculations public debt will amount to 122 percent of GDP in 17 advanced economies in 2020. In the opinion of Elga Bartsch, "for the first time, fiscal policy is in the driving seat". In her view, the spontaneous coordination between fiscal and monetary policy is a policy revolution.



On the other hand, Bartsch, who is Head of Economics and Markets Research at Blackrock, warned against a blurring of boundaries which could lead to a slippery slope. "The coordination does not have clear exit strategies." She pointed out that this could cause fiscal pressure. Francesco Giavazzi of Bocconi Unversity was also convinced that "we will emerge with lots of public and private debt" from the coronavirus pandemic. He recommended a combination of a reduction in government spending and a reduction in taxes as policy response. In his view, the winners will be "the countries that allow reallocation to happen".

Finally, Volker Wieland illustrated the situation in Germany. He agreed that "fiscal policy is the first line of defense." Measures such as short-time work helped employees to remain in their companies instead of being dismissed right away. However, as economic forecasts are going deeper and deeper, according to Wieland, "the strategies of easing the lockdown is key" to economic recovery.

### 24.06.

# Volker Wieland, IMFS and German Council of Economic Experts

"Corona Crisis: Economic Outlook and Economic Policy Measures"

Drastic losses in industrial production, much more severe than during the financial crisis, an unprecedented collapse in consumer confidence, declining economic output, whether in Germany, the euro zone or China. Based on current data from the Corona crisis, Volker Wieland gave an overview of the economic situation in Germany and analyzed economic policy measures at the IMFS Policy Webinar.

On the previous day, the German Council of Economic Experts, of which Wieland has been a member since 2013, had lowered its economic forecast for Germany for this year to -6.5 percent, while it expects growth of 4.9 percent for the coming year. For the euro area, the Council

members forecast a decline of 8.5 percent in the current year. "Only in 2022 we can expect to reach the pre-crisis level again," said Wieland in his virtual lecture. As the development in the euro area and in the United States was worse than initially foreseeable, the economic forecast was lower than the risk scenario which the Council of Economic Experts had assumed in March when hardly any data on the effects of the coronavirus were available.

While the pandemic is now declining in Europe and the focus is shifting to other regions, real-time data point to a gradual recovery, Wieland said. Since the



beginning of May, the index for truck mileage has been on the rise again and electricity consumption is also continuing to increase, after having fallen by up to 80 percent in Italy, for example. In order to support the recovery, the Federal Government has already decided on 353 billion euros in budgeteffective measures and 819 billion euros in loans and guarantees - according to Wieland about 33 percent of the gross domestic product. Measures of the IMF indicate that Germany and Italy are offering the largest discretionary support packages including opitions for loan guarantees among euro zone member states. The liquidity support is key for helping the economy through the crisis. In addition, the German government is planning an economic stimulus package in the second guarter of 2020. However, this is not decisive for the current upward trend.

"The main effect in the second quarter comes from reduction in new infections and the easing of pandemic health restrictions, not from the economic stimulus package," said Wieland. He therefore sees the further course of the recovery as being linked to the degree of restrictions, uncertainty and income losses.

With the emergency purchase program PEPP, the ECB has also made its contribution to softening economic impact of the pandemic. At the beginning of June, the ECB had decided its bond purchase program by 600 billion euros to a total of 1.35 trillion euros. It is important to scale back these measures when the crisis is overcome. "The PEPP program was not designed for the long term, so the ECB must be taken at its word," Wieland emphasized.

At the European level, the member states could benefit from the 540 billion euros package agreed in April. This includes support for short-term work schemes, credit lines for sovereigns from the ESM stability mechanism and loan guarantees for private sector companies from the European Investment Bank. In any case, Wieland expects a large increase in debt. It is important to consider how to deal with this in the future. "We have to see how we can grow out of the debt again and avoid a mutualization of member state debt without control over the expenditure."

### 13.11.

# Volker Wieland, IMFS and German Council of Economic Experts

"Overcoming the Coronavirus Crisis Together; Strengthening Resilience and Growth"

Volker Wieland expects that the German eonomy will return to its pre-Corona crisis level at the beginning of 2022, as he stated in the IMFS Policy Webinar on November 13: "The pandemic determines the course of the economy," said Wieland at the presentation of the annual report of the German Council of Economic Experts (GCEE), of which he has been a member since 2013. He

added that although risks still existed, supply chains were intact and the sectors in lockdown only accounted for a small share of economic output. The German Council of Economic Experts expects gross domestic product to fall by 5.1 percent this year. Next year, the economy could then grow again by 3.7 percent. "It is a completely different kind of crisis than the financial crisis," Wieland emphasized. Both industrial production and trade in goods had recovered much faster than after the financial crisis.

According to Wieland, both the rapid response in monetary policy and the immense fiscal aid measures such as short-time work, bridging assistance, loans and tax breaks had a supporting effect. The Pandemic Emergency Purchase Program PEPP, which the ECB announced in mid-March and increased in June, has a volume of EUR 1.35 trillion. According to the calculations of the GCEE, the German government's economic stimulus package is likely to increase economic output by 0.7 to 1.3 percent this year. So far, companies have only made use of a small proportion of the corona aid. Wieland also sees the EU reconstruction fund as an opportunity to increase competitiveness.

However, the stimulus measures are not always targeted, Wieland said. "A reduction of the electricity tax and an extension of the tax loss carryforward would have been more sensible than the reduction of the sales tax." Also, income tax increases or a new wealth tax were the completely wrong way. "We can grow out of debt through economic growth." So far, the increase in German government debt is smaller than after the financial crisis. The GCEE expects the debt ratio to rise from 58.7 percent in 2019 to 72.1 percent this year. For 2021, the GCEE forecasts a slight decline to 71.1 percent.

In order to be able to react appropriately to future crises, however, it is necessary to reduce monetary and fiscal policy stimulus measures once the crisis is over, Wieland continued. "The ECB should therefore communicate an exit strategy from loose monetary policy in the coming year and show how it intends to reduce its bond holdings again."

## III. Other Events

# MMCN Webinar Series on Macroeconomic Modelling and Pandemics

The MMCN Webinar Series was being launched under the auspices of the CEPR Network on Macroeconomic Modelling and Model Comparison (MMCN) and the Macroeconomic Model Comparison Initiative supported by the IMFS at Goethe University Frankfurt and the Hoover Institution at Stanford University.

### May 4, 2020

8:00-9:00 am Pacific Time

5:00-6:00 pm Central European Summer Time Macroeconomic Dynamics and Reallocation in an Epidemic

Prof. Harald Uhlig, Ph.D. (jointly with Dirk Krueger, Taojun Xie), University of Chicago



### May 6, 2020

7:00-8:00 am Pacific Time
4:00-5:00 pm Central European Summer Time
The Macroeconomics of Epidemics
Prof. Dr. Mathias Trabandt (jointly with Martin
S. Eichenbaum, Sergio Rebelo), Freie Universität
Berlin

### May 11, 2020

8:00-9:00 am Pacific Time
5:00-6:00 pm Central European Summer Time
Strategies for Controlling the Medical and Socioeconomic Costs of the Corona Pandemic

Daniel Gros, Ph.D. (jointly with Claudius Gros, Roser Valenti, Killian Valenti), Centre for European Policy Studies (CEPS)

#### May 13, 2020

8:00-9:00 am Pacific Time

5:00-6:00 pm Central European Summer Time The COVID19-Pandemic in the EU: Macroeconomic Transmission and Economic Policy Response Werner Roeger, Ph.D. (jointly with Jan in't Veld and Philipp Pfeiffer), European Commission

### May 18, 2020

2:00-3:00 pm Pacific Time

11:00 pm-12:00 am Central European Summer Time

The Global Macroeconomic Impacts of COVID-19: Seven Scenarios

Prof. Warwick McKibbin, Ph.D. (jointly with Roshen Fernando), Australian National University

### May 25, 2020

8:00-9:00 am Pacific Time

5:00-6:00 pm Central European Summer Time

The Corona Stimulus Package: How Large is the Transfer Multiplier?

Prof. Dr. Gernot Müller (jointly with Christian Bayer, Benjamin Born, Ralph Luetticke), University of Tübingen

### May 27, 2020

8:00-9:00 am Pacific Time

5:00-6:00 pm Central European Summer Time

Social Distancing and Supply Disruptions in a Pandemic

Luca Guerrieri, Ph.D. (jointly with Martin Bodenstein and Giancarlo Corsetti), Board of Governors of the Federal Reserve System

### June 3, 2020

8:00-9:00 am Pacific Time

5:00-6:00 pm Central European Summer Time

Health vs. Wealth: On the Distributional Effects of Controlling an Epidemic

Prof. Dirk Krueger, Ph.D. (jointly with Andrew Glover, Jonathan Heathcote and José-Victor Rios-Rull), University of Pennsylvania

# Research-Based Policy Advice



IMFS researchers share their insights regarding current economic and legal issues on both the national and international levels of policy making. Since 2013, Volker Wieland's research has been closely intertwined with his work as a member of the German Council of Economic Experts (GCEE). His current term of office runs until February 2023.



Throughout the year, the Council conducts hearings with government ministers and leading officers of federal associations in order to gain insights from policy practice for its analysis. Already at the outbreak of the corona crisis, the GCEE analyzed the developments in a special report. "The Economic Outlook in the Coronavirus Pandemic" was published on March 30 and met wide interest. On June 23, the GCEE presented its economic update, taking into account the latest

developments and the recent impact of the pandemic. The GCEE expected the coronavirus pandemic to cause the worst economic downturn since the Federal Republic of Germany was founded.

On November 11, the Council members presented their Annual Report 2020/21 entitled "Overcoming the Coronavirus Crisis Together; Strengthening Resilience and Growth" during

a virtual meeting to Chancellor Angela Merkel, the Federal Minister of Finance Olaf Scholz, the Federal Minister of Labour and Social Affairs Hubertus Heil, the Federal Minister of Health Jens Spahn and the Head of the Federal Chancellery Helge Braun. The findings were also presented and discussed in a press conference. The GCEE consists of five members: Prof. Lars P. Feld (Chair), Prof. Veronika Grimm, Prof. Monika Schnitzer, Prof. Achim Truger and Prof. Volker Wieland.

Apart from that, as a member of the scientific advisory council of the Market Economy Foundation, the Kronberger Kreis, Volker Wieland has a strong focus on market-oriented solutions to crucial challenges in German and European economic policy. The Kronberger Kreis meets several times a year at different places to discuss solutions to current challenges and prepare op-eds or studies. In 2020, the Kronberger Kreis published a study on competitiveness in the coronavirus pandemic. In the study entitled "Kein Rückzug in die Festung Europa!" (No Retreat to the Fortress Europe!), the researchers argue that crisis caused by the coronavirus pandemic can only be overcome by an increase in productivity instead of trying to create European champions. The members of the Kronberger Kreis are Prof. Berthold Wigger, Prof. Clemens Fuest, Prof. Heike Schweitzer, Prof. Lars P. Feld, Prof. Justus Haucap, and Prof. Volker Wieland.



# Policy Meetings and Hearings at a Glance

17.12.	Virtual Meeting	GCEE Presentation of the Annual Report to Deutsche Bundesbank President Jens Weidmann and Members of the Deutsche Bundesbank Executive Board	VW
11.11.	Virtual Meeting	Presentation of the Annual Report of the GCEE to Chancellor Angela Merkel, the Federal Minister for Economic Affairs and Energy Peter Altmaier, the Federal Minister of Labor and Social Affairs Hubertus Heil, the Federal Minister of Finance Olaf Scholz and the Federal Minister of Health Jens Spahn	VW
08.10.	Wiesbaden	Meeting of GCEE with the head of the Federal Employment Agency (Bundesagentur für Arbeit), Detlef Scheele	VW
01.10.	Frankfurt	Meeting of GCEE with ECB President Christine Lagarde, Vice- President Luis de Guindos and Board Members Philip Lane, Fabio Panetta and Isabel Schnabel	VW
29.09.	Virtual Meeting	Franco-German Council of Economic Experts, workshop "Towards Economic Recovery: France, Germany and Europe" with Members of Parliament (Bundestag, Assemblée Nationale, European Parliament), government officials, business and NGO representatives from Berlin, Paris and Brussels as invited audience	VW
23.09.	Berlin	GCEE Meetings with Lars-Hendrik Röller, economic policy advisor, Federal Chancellery, the Federal Minister of Labor and Social Affairs Hubertus Heil, the head of the German Employers' Association (BDA), Ingo Kramer, and the head of the Association of German Industry (BDI), Dieter Kempf	VW
22.09.	Frankfurt	GCEE Meeting with the President of Deutsche Bundesbank Jens Weidmann and Members of the Executive Board of Deutsche Bundesbank	VW
15.09.	Virtual Meeting	Participation in the ECB Roundtable with President Christine Lagarde on the Review of the Monetary Policy Strategy	VW
09.09.	Virtual Meeting	Monetary Policy in Corona Times, Economic Dialogue in the Chancellor's Office	VW
29.06.	Berlin	Invited expert at the Hearing of the Budget Committee of the German Bundestag on the budget and debt outlook	VW
25.06.	Virtual Meeting	Meeting with State Secretary Jörg Kukies and officials of the Federal Ministry of Finance	HS/ VW

18./19. 06.	Virtual Meeting	GCEE Meetings with the Federal Minister for Economic Affairs and Energy Peter Altmaier, the head of the Association of German Chambers of Industry and Commerce (DIHK) Eric Schweitzer and Executive Board Member of the German Trade Union Confederation (DGB) Stefan Körzell	VW
09.06.	Virtual Meeting	GCEE: International Meeting of the Councils of Economic Policy	VW
25.03.	Virtual Meeting	GCEE Meeting with Lars-Hendrik Röller, economic policy advisor, Federal Chancellery, Jakob von Weizsäcker, Federal Ministry of Finance, Philipp Steinberg, Federal Ministry for Economic Affairs and Energy	VW
24.03.	Virtual Meeting	Meeting with the Federal Minister for Economic Affairs and Energy Peter Altmaier	VW
02.03.	Berlin	Invited expert at the Hearing of the Budget Committee of the German Bundestag on the German debt brake	VW
10.02.	Berlin	National Productivity Dialogue, GCEE and European Commission	VW

# **Public Outreach and Press**



IMFS researchers are regularly invited by the press to share their insights on a wide range of economic issues. These include the economic outlook and business cycle developments but also issues concerning price stability and financial stability as well as monetary policy and financial regulation.

## **Public Outreach and Press at a Glance**

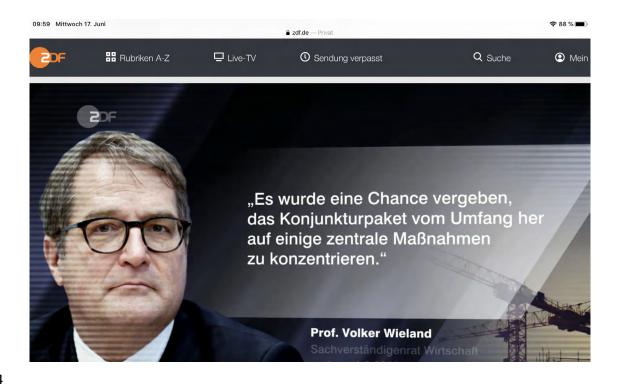
# Media References to IMFS research papers and IMFS research

29.09.	FAZ	Strengere Regeln für die Geldpolitik (Stricter rules for monetary policy)	VW
21.05.	Neue Zürcher Zeitung (NZZ)	Die Bundesbank sieht den Handlungsbedarf beim EZB-Rat (Bundesbank sees a need for action in the ECB Governing Council)	HS/VW
20.05.	Handelsblatt	EZB-Urteil schwächt deutsche Position (ECB judgment weakens German position in Europe)	VW
13.05.	Finanz- business.de	Professoren zeigen der EZB Handlungsoptionen auf (Professors outline options for the ECB's future actions)	HS/VW
14.04.	Die Zeit	Wer gibt hier nach? (Who will give in?)	VW
14.05.	Fazit-Blog	Die EZB und der Finanzzyklus (The ECB and the financial cycle)	HS/VW
11.05.	FAZ.NET	Das sind die Optionen der EZB (These are the ECB's options)	HS/VW

### **Guest Editorials**

15.11.	Unterneh-	Käufe von Staatsanleihen durch die EZB: Spiel mit dem	VW
	mermagazin	Feuer	
		(The ECB's government bond purchases: Playing with fire)	
12.11.	Handelsblatt	Inflation ist nicht gleich Inflation	TT
		(Inflation does not always equal inflation)	
02.10.	FAZ	Es lebe der Unterschied	VW
		(Long live the difference, co-authors Lars Feld, Clemens	
		Fuest, Heike Schweitzer, Berthold Wigger)	
24.07.	Handelsblatt	Das Bundesverfassungsgericht hat die Unabhängigkeit der	VW
		EZB gestärkt	
		(The Federal Constitutional Court confirms the ECB's	
		independence)	
	l		

15.07.	ZBW- Wirtschafts- dienst	Die Bewältigung des Corona-Schocks (Coping with the corona shock, co-authors Lars Feld, Wolf Heinrich Reuter)	VW
23.06.	Börsen- Zeitung	Mehr Respekt für das Bundesverfassungsgericht (More respect for the Federal Constitutional Court)	HS
06.06.	Kathimerini	Household finances in the pandemic	МН
01.06.	IHK- Zeitschrift	So kann eine noch schlimmere Krise abgewendet werden (How to avoid an even worse crisis)	VW
28.05.	Die Welt	Dieser Plan der Top-Ökonomen soll Deutschland vor der Rezession bewahren (Top economists' plan fore saving Germany from a recession, co-authors Lars Feld, Clemens Fuest, Justus Haucap, Heike Schweitzer, Berthold Wigger)	VW
21.05.	Süddeutsche Zeitung	So kann sich die Wirtschaft erholen (This is how the economy can recover, co-authors Lars Feld, Veronika Grimm, Monika Schnitzer, Achim Truger)	VW
05.05.	Ta Nea	The post-virus Greek economy	МН
12.04.	Frankfurter Allgemeine Sonntags- zeitung (FAS)	Eine Exit-Strategie für Deutschland (An exit strategy for Germany, co-authors Lars Feld, Veronika Grimm, Monika Schnitzer, Achim Truger)	VW



# Interviews

12.11.	Börsen- Zeitung	Deutschland kann mit höherem Wachstum aus den Schulden herauskommen (Germany can get out of debt with higher growth)	VW
11.11.	NZZ	Die Auswirkungen der zweiten Welle sind überschaubar (The effects of the second wave are manageable)	МН
08.09.	Börsen- Zeitung	Man kann die Geldpolitik nicht einfach dem Finanzministerium überlassen (You cannot leave monetary policy to the finance ministry)	VW
23.06.	Deutsche Welle.com	German economy to recover later than originally thought	VW
04.06.	Reuters	Wirtschaftsweiser Wieland: Mehrwertsteuersenkung hat hohen Strohfeuereffekt (Economic advisor: Effect of the reduction of sales tax is a flash in the pan)	VW
03.06.	Börsen- Zeitung	Dauerhafte Staatsfinanzierung gehört nicht zur Rolle der EZB (Permanent public financing is not a part of the ECB's role)	VW
08.05.	Wiwo.de	Es könnte zu Fluchtbewegungen aus dem Euro kommen (There could be escape movements away from the euro)	VW
17.04.	Reuters	Wirtschaftsweiser warnt vor Planwirtschaft im Corona- Kampf (Economic expert warns against planned econom)	VW
31.03.	FAZ	Viele Güter werden jetzt billiger (Many goods will be cheaper)	VW
30.03.	FAZ.NET	Die Spanische Grippe hatte noch einmal ganz andere Auswirkungen (The Spanish flu had an even bigger impact)	VW
30.03.	NZZ	Wirtschaftsweiser Wieland: Wir brauchen eine Ausstiegsstrategie (Economic expert Wieland: We need an exit strategy)	VW
27.03.	Handelsblatt	Ausweg aus dem Corona-Koma (Exit from the corona coma)	VW
27.03.	FAZ	Ein Hilfsprogramm mit wenig Grenzen (A stimulus program with few limits)	VW
25.03.	Handels- blatt.com	Kommt mit den Riesen-Rettungspaketen die Inflation? (Will the big rescue packages cause inflation?)	VW

23.03.	Boerse.ARD. de	Staatsschuldenkrise on top wäre fatal (A debt crisis on top would be disastrous)	VW
20.03.	Börsen- Zeitung	Die EZB ist in Vorleistung gegangen (The ECB has delivered in advance)	VW
20.03.	Handelsblatt	Die Maßnahmen der EZB werden die gewünschte Wirkung erzielen (The ECB measures will have the intended effect)	VW
20.03.	FAZ	Ein neuer Whatever-it-takes-Moment (A new whatever-it-takes moment)	VW
11.02.	Reuters	Wirtschaftsweiser rät EZB unter Lagarde zu mehr Transparenz (Economic expert advises the ECB under Lagarde to be more transparent)	VW
23.01.	MNI News	Over-regulated Germany may dodge recession	VW
23.01.	MNI News	ECB should consider other price data	VW
Profiles			
23.01.	FAZ	EZB-Beobachter sollen helfen (ECB watchers will help with strategic review)	VW
Comme	ntary/Menti	ons	
16.12.	Börse Online.de	Erst Shutdown, dann Boom? Was für den Aufschwung 2021 spricht (At first shutdown, then boom? The indicators for an economic recovery in 2021)	VW
14.12.	Deutsche Welle.com	Was kostet der harte Lockdown? (The costs of a hard lockdown?)	VW
14.12.	Zeit Online	Ökonomen rechnen mit starken neuen Einbußen (Economists expect new major losses)	VW
14.12.	Reuters	Pandemieverlauf stellt Konjunkturrisiko dar (Course of the pandemic poses a risk for inflation)	VW
14.12.	Wiwo	Buchempfehlung Charles Goodhart (Book recommendation: Charles Goodhart)	VW

13.12.	FAS	Kommt die Inflation bald zurück? (Will inflation soon be back again?)	VW
11.12.	FAZ	Mit 1,85 Billionen gegen die Krise (1.85 trillion against the crisis)	VW
08.12.	Financial Times	Soaring eurozone government debt reignites call for cancelation	VW
04.12.	FAZ	Streit über Gespräche mit Banken (Conflicts about discussions with banks)	VW
03.12.	Handelsblatt	Eine neue Messung der Inflation für die EU (A new inflation measurement for the EU)	VW
03.12.	Börsen- Zeitung	Exklusive EZB-Telefonate lösen Irritationen aus (Exclusive ECB phones calls provoke irritation)	VW
01.12.	FAZ	Regierung will Inflation neu vermessen (Government wants to measure inflation differently)	VW
27.11.	Börsen- Zeitung	Zweite Coronawelle verdirbt die Kauflaune (Second wave of coronavirus diminishes the mood for shopping)	VW
20.11.	Handelsblatt	Nicht fit für Corona – EU ist für erneute Bankenkrise nicht gewappnet (Not fit for the coronavirus – the EU is not prepared for another banking crisis)	VW
17.11.	Die Welt	Der Post-Corona-Plan für die Bankenwelt (The post-Corona plan for the banking world)	VW
14.11.	Oe.at	Chance auf US-Handelsdeal unter Biden nicht größer (Chance of a US trade deal are not higher under Biden)	VW
12.11.	Börsen- Zeitung	Lagarde avisiert Lockerung, Wirtschaftsweise warnen (Lagarde indicates easing, economic experts urge caution)	VW
11.11.	Zeit Online	Wirtschaftsweise erwarten 2021 starkes Wachstum (Economic experts expect strong growth in 2021)	VW
11.11.	Tagessschau. de	Wirtschaftliche Lage bleibt fragil (Economic situation remains fragile)	VW
11.11.	Reuters	Chance auf Handelsdeal mit USA unter Biden nicht größer (No bigger chance of a trade deal with the U.S. under President Biden)	VW

11.11.	Reuters	Aussicht auf Impfstoff beschleunigt Konjunkturerholung (Chance of vaccine speeds up economic recovery)	VW
11.11.	Merkur.de	Corona-Exitus? Wirtschaftsweise mit überraschender Prognose und klaren Worten zu Merkels Politik (Death by coronavirus? Economic experts with surprising forecast and clear stance regarding Merkel's policy)	VW
10.11.	FNP.de	Corona-Exitus? Wirtschaftsweise mit überraschender Prognose und klaren Worten zu Merkels Politik (Corona exitus? Economic experts with suprising forecast and clear stance on Merkel's politics)	VW
07.11.	Mannheimer Morgen	Fünf Weise für ein Gutachten (Five experts for an assessment)	VW
30.10.	Handelsblatt	Sparen in einer Welt ohne Zinsen (Saving money in a world without interest rates)	TT
14.10.	Der Tagesspiegel	Die Preisfrage (The prize question)	VW
05.10.	Handelsblatt	Warum die gefühlte Inflation so viel höher ist als die gemessene (Why perceived inflation is so much higher than measured inflation)	VW
30.09.	Reuters	EZB denkt laut über flexibleren Umgang mit Inflationsziel wie in USA nach (Mirroring the U.S., the ECB is considering flexible inflation targeting)	VW
22.09.	FAZ	Lehren aus dem teuren Gemüse (Lessons from the expensive vegetables)	VW
17.09.	Wiwo.de	Voll daneben! Die neue Strategie der Zentralbanken verfehlt ihr Ziel (Off the mark! The central bank's new strategy misses its target)	VW
11.09.	Süddeutsche Zeitung	Er ist zu stark (It is too strong)	VW
08.09.	Das Invest- ment.com	Von Inflation keine Spur (No sign of inflation)	VW
08.09.	Börsen- Zeitung	Wieland sieht keinen Bedarf für EZB-Lockerung (For Wieland the ECB has no need for easing)	VW

04.09.	FAZ	Thomas Laubach	VW
29.08.	FAZ	Was die EZB nun mit dem Fed-Plan mach (What the ECB will do with the Fed plant)	VW
20.08.	Börsen- Zeitung	Kronberger Kreis fordert Wettbewerb in Europa (Kronberger Kreis calls for competition within Europe)	VW
05.08.	Deutschland- funk.de	Die Bundesbank und ihr Verhältnis zur EZB (The Bundesbank and its relationship with the ECB)	VW
01.07.	Forbes.at	In der Krise vereint (United in crisis)	VW
30.06.	Börsen- Zeitung	Für Corona sind die Kapitaldecken zu löchrig (For the coronavirus, the capital cover is not sufficient)	тт
30.06.	Börsen- Zeitung	Mehrwertsteuersenkung kann kommen (The cut in sales tax may come)	VW
27.06.	Süddeutsche Zeitung	Aus der Scheinzeit (Back to the times of bank notes)	VW
26.06.	FAZ	Europas Banken droht riesige Kapitallücke (Europe's banks are threatened by big capital gap)	тт
24.06.	Hannover- sche Allgemeine	Ökonomen erwarten gebremsten Wumms (Economists expect curbed impact)	VW
24.06.	Der Tages- spiegel	Erholung ab dem Sommer (Recovery as of summer)	HS
24.06.	Börsen- Zeitung	Wirtschaftsweise erwarten Erholung ab Sommer (Economic experts expect recovery as of summer)	VW
24.06.	FAZ	Die Erholung kann beginnen (The recovery may begin)	VW
23.06.	Der Spiegel	Wirschaftsweise warnen vor verfrühtem Sparkurs (Economic experts warn against premature austerity measures)	VW
23.06.	ZDF.de	Experten senken Konjunkturprognose (Economic expert cut forecast)	VW

23.06.	Reuters	Wirtschaftsweiser warnt vor verfrühter Debatte über Haushaltskonsolidierung (Economic expert warns against hasty discussions about budget consolidation)	VW
18.06.	Handelsblatt	Diese Aktien profitieren vom Geldregen (These stocks will benefit from the windfall)	VW
18.06.	Handels- blatt.com	Das sind die Aktien-Profiteure des Corona- Konjunkturpakets (These are the stocks that will benefit from the corona stimulus package)	VW
17.06.	Euro	Soll die Kuh vom Eis, müssen alle kooperativ sein (Everyone has to cooperate in order to solve the problem)	VW
11.06.	Presse Augs- burg.de	Scholz-Berater kritisieren Konjunkturpaket (Scholz' advisors critizice stimulus package)	VW
08.06.	The Daily Telegraph	EU heading for constitutional crisis	VW
05.06.	Börse Online.de	Mehrwertsteuer-Senkung hat hohen Strohfeuereffekt (Decrease in sales tax is only a temporary upsurge)	VW
05.06.	T-online.de	Das bringt das Konjunkturpaket für Verbraucher und Wirtschaft (What the stimulus package means for consumers and economy)	VW
05.06.	BR24.de	Konjunkturpaket – Viele Wirtschaftsverbände reagieren positiv (Stimulus package – many economic association react positively)	тт
05.06.	Süddeutsche Zeitung	Lagardes Milliarden (Lagarde's billions)	VW
05.06.	Handelsblatt	EZB weitet Anleihekäufe deutlich aus (ECB increases bond purchases)	VW
05.06.	FAZ	Die EZB legt noch eine Schippe drauf (The ECB adds more to the program)	VW
04.06.	Orf.at	"Wumms" soll deutsche Wirtschaft ankurbeln ("Wumms" is meant to stimulate German economy)	VW
04.06.	Bild.de	Mehrwertsteuer wird gesenkt (Sales tax will decrease)	VW

04.06.	Reuters	Druck auf den Handel, Verbraucher sollen profitieren (Retail under pressure, consumers are supposed to profit)	VW
04.06.	Tagesspiegel. de	Wo in den nächsten Monaten die Preise fallen und wo nicht (Where prices will decrease in the next months and where	VW
04.06.	Boerse.ARD. de	Wer profitiert vom deutschen Konjunkturpaket? (Who benefits from the German stimulus package?)	VW
04.06.	Bild.de	EZB weitet Corona-Programm um 600 Milliarden Euro aus (ECB increases corona program by 600 billion euros)	VW
04.06.	Handels- blatt.com	Ein Krisenprogramm von 1,35 Billionen Euro: Die EZB geht in die Vollen (A crisis program of 1.35 trillion euros: The ECB is going full	VW
04.06.	FAZ.NET	Lagarde beflügelt den Dax nur kurz (Lagarde boosts the Dax only for a short time)	VW
04.06.	Handels- blatt.com	Newsblog: EZB erwartet beispiellosen Konjunktureinbruch in diesem Jahr	VW
04.06.	Reuters	Ökonomen zum aufgestockten Notprogramm der EZB zur Corona-Krise (Economists on the increased emergency program of the ECB in the corona crisis)	VW
03.06.	Börsen- Zeitung	EZB-Käufe liefern Kritikern neue Nahrung (ECB purchases inciting critics)	vw
02.06.	BR.de	Experten halten Familienbonus für falsch (Experts think family bonus is wrong)	VW
28.05.	Dts	Kronberger Kreis fordert steuerliche Entlastungen (Kronberger Kreis calls for tax reliefs)	VW
27.05.	Handels- blatt.com	EZB sieht sich von Karlsruher Urteil nicht betroffen (ECB does not feel affected by Karlsruhe judgment)	VW
25.05.	Les Echos	Pourquoi les Allemands craignent tant l'inflation (Why the Germans believe in inflation)	VW
18.05.	Handelsblatt	Sparen in einer Welt ohne Zinsen (Saving in a world without interest rates)	VW
18.05.	Focus	Die Weltschuldenkrise (The world debt crisis)	VW

09.05.	Der Spiegel	Mit Frauen im Vorstand wäre die Gruppendynamik ganz anders gewesen (With women in the Executive Boards the group dynamics would have been different)	VW
09.05.	Kölner Express.de	Corona vs. Finanzkrise: Der große Crash-Vergleich (Corona vs. Financial crisis: the crashes in comparison)	VW
07.05.	Süddeutsche Zeitung	Zwischen den Fronten (Between the frontlines)	VW
07.05.	NZZ	Der Biss der Verfassungsrichter (The bite of the federal judges)	VW
06.05.	NZZ online	Das Urteil des Verfassungsgerichts könnte den europäischen Hilfsprozess von der EZB nach Brüssel verlagern (The constitutional court's decision could shift the European rescue process from the ECB to Brussels)	VW
06.05.	FAZ	Drei-Monats-Ultimatum für die EZB (An ultimatum of three months for the ECB)	VW
04.05.	FAZ.NET	Zwei Wirtschaftsweise bewerten EZB-Anleihekäufe milde (Two economic experts evaluate ECB bond purchases gently)	VW
04.05.	FAZ	Verfassungsrichter entscheiden über EZB-Käufe (Constitutional judges decide about ECB purchases)	VW
03.05.	FAS	Ist die EZB noch zu stoppen? (Can the ECB be stopped?)	VW
29.04.	Daily Mail online	Germany faces its worst recession in history	VW
28.04.	FAZ.NET	ECB predicted to beef up asset purchases with shift into junk bonds	VW
26.04.	FT.com	Die EZB legt noch eine Schippe drauf (The ECB adds more to the program)	VW
22.04.	L'Express	Conséquences économiques du coronavirus: la revanche de la fourmi allemande (The economic consequences of the coronavirus: the revenge of the German ant)	VW
21.04.	FAZ	Historischer Preissturz von Öl (Historic drop in oil price)	VW

20.04.	FAZ.NET	Von wegen Hyperinflation (Hyperinflation – not)	VW
18.04.	FAZ	Chinas Absturz als düsterer Vorbote (China's downturn as gloomy harbinger)	VW
16.04.	Reuters	Wirtschaftsweiser warnt vor Planwirtschaft (Economic expert warns against planned economy)	VW
14.04.	Bloomberg	Crisis gives Germany Sense of Vindication for Black Zero	VW
09.04.	NZZ	Die EZB ebnet den Weg der Eurozone in Richtung einer Transferunion (The ECB paves the way of the Eurozone toward a transfer union)	VW
07.04.	Makronom. de	Elitenpanik, Suffizienz-Wirtschaft, Ameisen-Gesellschaft (Panic of the elite, sufficiency management, the society of ants)	VW
07.04.	FAZ.NET	Essen wird teurer, Benzin günstiger (Food will be more expensive, gasoline will be cheaper)	VW
06.04	Reuters	As Germany reels from coronavirus, some officials debate impact on banks	VW
06.04	dpa	Was die Corona-Krise und die Finanzkrise unterscheidet (What distinguishes the corona crisis from the financial crisis)	VW
04.04.	Deutsche Welle	Corona-Krise: Europas Sehnsucht nach Normalität (Corona crisis: Europe's longing for normality)	VW
04.04.	Focus	Wir gegen uns (We against us)	VW
04.04.	Der Spiegel	Das Corona-Domino (The coronavirus domino)	VW
03.04.	Deutsche Welle.com	Corona virus: Europeans crave normality but remain patient	VW
02.04.	Industrie- magazin	Nach starker Rezession schnelle Erholung möglich (After strong recession quick recovery possible)	VW
02.04.	Süddeutsche Zeitung	Zwei weibliche Wirtschaftsweise (Two female economic experts)	VW
02.04.	FAZ	Wirtschaftsweise nominiert (Economic experts nominated)	VW

02.04.	Börsen- Zeitung	Schnitzer und Grimm im Sachverständigenrat für Wirtschaft (Schnitzer and Grimm among the economic experts)	VW
01.04.	Merkur.de	Kampf gegen Corona-Folgen: Söder holt die Bazooka raus und bleibt auf Linie mit Merkel (Fight against the consquences of the coronavirus: Söder gets out the bazooka and remains on Merkel's course)	VW
01.04.	Reuters	Erstmals zwei Frauen unter den Wirtschaftsweisen (For the first time two women among economic experts)	VW
01.04.	Dow Jones	Ökonominnen Grimm und Schnitzer sind neue Wirtschaftsweise (Economists Grimm and Schnitzer are new economic experts)	VW
31.03.	Mannheimer Morgen	Es ist nicht wie in einem Krieg (It's not like in a war)	VW
31.03.	Süddeutsche Zeitung	Hoffen auf das V (Hoping for the V)	VW
31.03.	Handelsblatt	Drei Szenarien für die Rezession (Three scenarios for the recession)	VW
31.03.	FAZ	Wirtschaftsweise: Erholung schon im Sommer (Economic experts: Recovery in summer)	VW
31.03.	Börsen- Zeitung	Wirtschaftsweise erwarten Rezession (Economic experts expect recession)	TT
30.03.	T-online.de	Die drei Lehren aus dem Corona-Gutachen der Wirtschaftsweisen (Three lessons from the coronavirus report of the economic experts)	VW
30.03.	Tagesspiegel. de	Drei Szenarien, wie es mit Deutschlands Wirtschafts weitergeht (Three scenarios how it will go on with Germany's economy)	VW
30.03.	Deutsche Welle.com	Wirtschaftsweise: Wir sind nicht in einem Krieg (Economic experts: We are not in a war)	VW
30.03.	Bild.de	Einkaufen könnte bald teurer werden (Shopping could become more expensive soon)	VW
30.03.	dpa-AFX	Wirtschaftsweise sehen heftige Rezession und Hoffnungsschimmer (Economic experts expect sharp recession and glimmers of hope)	VW

30.03.	Die Welt.de	Wirtschaftsweise befürchten Einbruch um bis zu 5,4 Prozent (Economic experts fear economic slump by up to 5.4 percent)	VW
30.03.	BR.de	Sachverständigenrat: Corona trifft Wirtschaft ins Mark (Economic experts: Economy is hit hard by coronavirus)	VW
27.03.	FAZ	Grenzen für den Kauf von Staatsanleihen fallen (Boundaries for the purchase of government bonds are disappearing)	VW
26.03.	Handels- blatt.com	Deutschland sucht die Exit-Strategie: Welche Optionen gibt es? (Germany is looking for the exit strategy: Which options do exit?)	VW
25.03.	Börsen- Zeitung	Wirtschaftsweise machen Hoffnung (Economic experts convey hope)	VW
25.03.	Handelsblatt	Rezession wie zur Finanzkrise (Recession as in the financial crisis)	VW
24.03.	Handels- blatt.com	Wirtschaftsweise erwarten Rezession wie in der Finanzkrise – im wahrscheinlichsten Fall (Economic experts ecpect a recession such as in the financial crisis – most probably)	VW
24.03.	Tagesschau. de	Der böse Verdacht der Staatsfinanzierung (Suspicion of monetary financing)	VW
23.03.	Boerse.ARD. de	Gigantische Anleihenkäufe: Sprengt Lagarde die Eurozone? (Gigantic bond purchases: Will Lagarde break the Eurozone?)	VW
20.03.	Handelsblatt	Hilfe für Europa (Aid for Europe)	VW
20.03.	FAZ	Tun, was auch immer nötig ist (Do whatever it takes)	VW
20.03.	Börsen- Zeitung	EZB beschließt Notkaufprogramm (ECB decides on emergency program)	VW
18.03.	Börsen- Zeitung	Neuer Chef für dezimierte Wirtschaftsweise (New boss for decimate d economic experts)	VW
17.03.	Süddeutsche. de	Neuer Chef der Wirtschaftsweisen (New boss of the economic experts)	VW
17.03.	Tagesschau. de	Feld an der Spitze der Wirtschaftsweisen (Feld heading the economic experts)	VW

09.03.	Handelsblatt	Panik an den Finanzmärkten (Panic at the financial markets)	VW
05.03.	T-online.de	Wirtschaftsweiser warnt vor verfrühtem Konjunkturprogramm (Economic expert warns against early stimulus package)	VW
02.03.	Die Welt	Mit zwei Ideen will Scholz die Schuldenbremse umgehen (Scholz wants to circumvent the debt brake with two ideas)	VW
02.03.	Handelsblatt	Finanzministerium spielt Aufweichung der Schuldenbremse durch (Finance ministry considering relaxation of the debt brake)	VW
25.02.	FAZ	Neue Kommunikation (New communication)	VW
19.02.	Handelsblatt	Experten zweifeln am geldpolitischen Kurs der EZB (Expert question the monetary policy stance of the ECB)	VW
18.02.	Handelsblatt	Wie Wohnkosten die Inflation beeinflussen (How housing costs influence inflation)	VW
12.02.	Tagesspiegel. de	Warum Wirtschaftsexperten bei China im Nebel stochern (Why economic experts stab around in the dark when it comes to China)	VW
12.02.	Wiener Zeitung	Deutsche Autobranche vor Verwerfungen wegen Coronavirus (German car sector threatened by upheavals due to corona virus)	VW
11.02.	Reuters	Ökonom Wieland: Wirtschaft steuert wohl auf Stagnation zu (Economist Wieland: Economy is heading toward stagnation)	VW
10.02.	Reuters	Wirtschaftsweiser: Viruskrise eher Schock als lange Schwächephase der Wirtschaft (Economic expert: corona crisis is rather a shock than a long phase of economic weakness)	VW
25.01.	FAZ	Das neue Inflationsziel dürfte höher ausfallen (New inflation target will probably be higher)	VW
16.01.	FAZ	Monika Schnitzer soll "Wirtschaftsweise" werden (Monika Schnitzer to be named economic expert)	VW
14.01.	Süddeutsche Zeitung	Neue Wirtschaftsweise werden Frauen sein (New economic experts will be women)	VW

# TV and radio interviews

09.12.	HR-Info	Statement regarding the ECB monetary policy	VW
25.11.	ARD- Plusminus	Lockdown – mit welchen Schwierigkeiten die Wirtschaft kämpft	VW
		(Lockdown and the difficulties the economy struggles with)	
11.11.	Tagesschau	News clip about the annual report of the German Council of Economic Experts	VW
30.09.	Bloomberg TV	Live interview regarding the ECB monetary policy	VW
30.09.	CNBC	Live interview regarding the ECB monetary policy	VW
10.09.	HR-Info	Statement regarding ECB monetary policy meeting	VW
26.08.	ARD-Mittags- magazin	Statement regarding extension of short-time allowance	VW
05.08.	Deutschland- funk	Statement regarding judgment on ECB bond purchases	VW
06.07.	Phönix plus	Droht nach Corona der Finanzcrash (Will there be a crash at the financial markets after corona?)	VW
23.06.	SWR3	Statement regarding the economic outlook	VW
23.06.	Deutsche Welle	Statement regarding the economic outlook	VW
18.06	ZDF – heute	Statement regarding Brexit	VW
04.06.	HR-Info	Statement regarding the ECB decision	VW
02.06.	BR	Statement regarding family bonus	VW
30.05.	SWR2 – Geld, Markt, Meinung	Die Politik und die Corona-Hilfsmilliarden – wer soll das bezahlen? (Politics and the coronavirus aid - who should pay for it?)	VW
05.05	_		100/
05.05.	HR-Info	Statement regarding court decision on PSPP	VW
05.05.	CNBC Europe	Live interview on the upcoming decision on PSPP	VW
29.04.	ZDF – Spezial	Live interview on the economic challenges in the corona crisis	VW
20.04.	HR-Info	Comment regarding the economic outlook	VW
14.04.	HR-Info	Expert talk regarding the corona crisis	VW

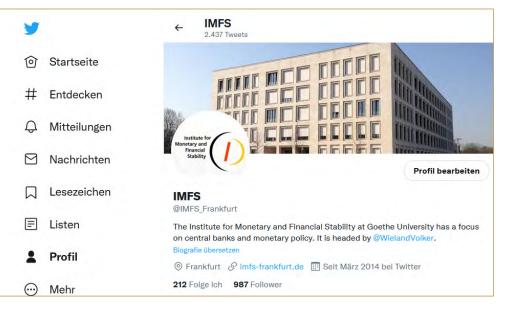
09.04.	Servus TV	Interview regarding the corona crisis	VW
07.04.	HR-Info	Statement regarding corona bonds	VW
02.04.	HR-Info	Statement regarding the corona crisis	HS
30.03.	ZDF – heute	Statement regarding the economic impact of the corona	VW
30.03.	ARD- Tagesschau	Statement regarding the economic impact of the corona crisis	VW
19.03.	ZDF – heute	Statement regarding the ECB PEPP program	VW
23.01.	HR-Info	Statement regarding the ECB monetary policy meeting	VW



# Press coverage of IMFS events

05.10.	Fazit-Blog	Geldpolitik neu denken
		(Re-thinking monetary policy)
20.05.	FAZ	EZB bleibt unbeirrt
		(ECB remains steadfast)
19.05.	Börsen-	EZB-Granden befeuern Lockerungsfantasien
	Zeitung	(ECB grandees fuel easing fantasies)
19.05.	Reuters	ECB can boost anti-pandemic bond purchases as much as needed
19.05.	Dow Jones	EZB/Lane bekräftigt Bereitschaft zur Erhöhung der Anleihekäufe (ECB/Lane underlines readiness for increasing bond purchases)
24.01.	Börsen-	Strategiedebatte birgt Konfliktstoff
	Zeitung	(Debate about strategy holds the potential for conflict)
22.01.	Börsen-	EZB stellt erstmals seit 2003 ihre Strategie auf den Prüfstand
	Zeitung	(For the first time since 2003, ECB will put its strategy to the test)

### Social Media



The IMFS informs the academic and financial community as well as the interested public about new research findings and events via social media. News about the institute, events, studies, and press statements are available via the Twitter account @ IMFS\_Frankfurt. More than 900 users are following the news about the IMFS. The institute is also present at the professional network LinkedIn.

