

CEFER INSIGHTS

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CEFER team

Marius Jurgilas, Member
of the Board of the Bank
of Lithuania, Founder and
curator of CEFER



Top (L to R): Guillermo Hausmann Guil, Swapnil Singh, Laima Štulaitė
Bottom (L to R): Patrick Grüning, Povilas Lastauskas, Eglė Jakučionytė, Benjamin Hemingway



Foreword

Dear Reader,

The Center for Excellence in Finance and Economic Research, or CEFER for short, was founded in the summer of 2015, an initiative led by Dr Marius Jurgilas, Member of the Board of the Bank of Lithuania. CEFER's primary objective is to produce in-house publications at internationally recognised economics and finance journals, as well as bring novel forms of teaching and new topics to Vilnius University. It was not long before CEFER outgrew its original idea. In fact, some of its top publications appeared as early as within the first two years of its existence.

CEFER was on the European and US job market from its very inception, so while still working at Cambridge University I was caught up by the idea of stirring the waters in Lithuania's economics and contributing to change in the national academic environment – change that was very much needed. Having joined CEFER in 2016 and being elected to full-time directorship in 2017, I pursued an agenda based on substantially deepened integration with universities: first, with Vilnius University (VU), and later with the country's second-largest university, Kaunas University of Technology (KTU).

Having initiated a brand-new, open-sources-based Bachelor's degree in Quantitative Economics (QE), encompassing data science, finance and economics, CEFER has made a vital contribution in nurturing future generations of economists and social data scientists. QE is highly selective, mind-sharpening, and the first research-based, English-taught, three-year economics degree in the country. We have also brought PhD workshops to VU as well as introducing and maintaining joint PhD courses on research methodology, econometrics, and macroeconomics at both our partner universities.

This has naturally led to organising training courses for the Bank of Lithuania's employees. From 2019, this initiative has included the Invited Lecture Series, with a presentation by Prof Klaus Adam of Oxford University delivered for the inaugural occasion. Indeed, a large variety of events are organised or co-organised by CEFER: seminars, workshops, reading groups, meetings of Lithuanian economists, informal gatherings, and even large conferences such as the International Panel Data Conference, a joint conference with the National Bank of Poland, CEPR and CEBRA, or the Baltic Economic Conference.

As a matter of fact, I see CEFER as both a coordinating and initiating platform in Lithuania, a connecting link for Lithuanian and international researchers. Building on this idea, together with colleagues from Latvia and Estonia we co-initiated and co-founded the Baltic Economic Association, which runs annual conferences, publishes the Baltic Journal of Economics, and fosters economics sciences in the Baltic region. We also coordinate Bank of Lithuania research awards, which are now modified to be inclusive to foreign applicants as well.

Of course, being inclusive and international requires being relevant as well. That is why we also work hard on



Povilas Lastauskas

making the Bank of Lithuania's micro-level data available for research purposes, started a collaboration with the Government Strategic Analysis Center, and even impacted a recent taxation reform, implemented by the Lithuanian government, providing research evidence on merging labour taxes levied on employees and employers.¹ We help the Bank of Lithuania be seen as a centre of excellence internationally by representing it at the ECB, OECD, and dozens of international conferences annually.

Despite our many activities, we are a small team of curious and ambitious minds; that is why attraction and retention of the brightest research economists remains a vital element of success. Our core objectives are the highest quality research and its dissemination in all its forms at the bank, in the whole country, region, and even globally. Policy-making must be based not only on evidence but also on state-of-the-art research and academic thinking. Creating academic freedom and independence whilst preserving proximity to policymakers and exposure to the most pressing questions, on top of real, meaningful changes being brought about during the first five years of CEFER, give me confidence in the centre's sustainability.

I invite you to find out more about our initiatives, publications, works-in-progress, plans, and visions in this kick-off newsletter. Most importantly, please get back to us with collaboration, event, visiting, or any other idea that would either strengthen current ties or open up new opportunities.

Yours Sincerely,

Povilas Lastauskas, PhD (Cantab)
Director of CEFER

¹ Weber, M. & Schram, A. (2017). The nonequivalence of labour market taxes: A real-effort experiment. *Economic Journal*, 127: 2187-2215. doi:10.1111/eoj.12365.

Policy-oriented research

Labour income taxation is an important source of revenue for governments. However, this source of taxation can have an adverse impact on the supply of labour in any economy. With labour being one of the most important factors of production, distortions in the supply of labour have large implications for the whole economy. This is why a major chunk of economics research is devoted to the study of the optimal taxation of labour.

One cornerstone of the research in labour income taxation is the liability-side equivalence (LSE) result. According to this result, it does not matter whether we tax a supplier of a commodity or a consumer of that commodity. In labour income taxation, the employee is the supplier and the employer is the consumer. The LSE says that it is irrelevant to consider whether the employee receives the full income and then pays taxes on it or the employer pays taxes first and then transfers net income to the employee.

The paper by CEFER alum Matthias Weber and his co-author Arthur Schram, titled "The non-equivalence of labour market taxes: A real-effort experiment", refutes the LSE result for labour income taxation. They emphasize that the LSE result is based on the implicit assumption of the full rationality of individuals who are getting taxed. This means that whenever a tax is imposed, they perceive and respond to those changes in a utility-maximising manner. However, these results cannot be taken for granted if individuals are not fully rational. An individual under bounded rationality assumption will perceive and respond to changes in taxation in a way that might not be optimal from the full rationality perspective.

With this chain of thought, they designed a laboratory experiment to test whether individuals respond differently to income tax (levied on employees) and payroll tax (levied on employers). Both impositions should yield the same responses under full rationality. However, the experiment results show that subjects in the experiment respond differently to these impositions. Specifically, they show that under payroll taxes workers prefer a larger public sector, higher subjective well-being of workers, and lower labour supply.

The implications of these results hold significance for



Matthias Weber

many advanced economies that are experiencing a negative trend in their supply of labour. This problem is further exacerbated by the skewed age distribution. Lithuania faces both these problems on a dramatic scale. Hence, last year, when the government was planning to impose changes in labour income taxation, this paper took centre stage in many discussions. More importantly, the Bank of Lithuania took a position on the labour income taxation based on the result of this paper. When reforms were finally agreed upon, it turns out that this paper had not only affected the policy debate but also affected the final result. Since 2019, a major portion of the payroll tax has been eliminated in Lithuania. Instead, employees receive a full salary and then labour income taxes are deducted. This change was made to increase the supply of labour in Lithuania. However, it is still an open question whether the results, which were present in a carefully controlled experimental setting, also hold true in real life.

Collaboration with universities

CEFER collaborates with the two largest public universities in Lithuania, Vilnius University (VU) and Kaunas University of Technology (KTU), on a number of dimensions. To provide a tangible shape to this collaboration, all researchers at CEFER hold a part-time position at these universities in a research capacity. Furthermore, CEFER has adopted a two-pronged approach to make this collaboration a success. First, to improve the quality of economic education by fielding its own programme and courses at the universities. Second, to improve the research content by organising seminars, conferences, and publishing in international peer-reviewed journals.

At VU, CEFER researchers are heavily involved in teaching for the Quantitative Economics BA programme, serving on the Studies Committee and mentoring students. Moreover, VU has been successful in hiring a number of young Lithuanian post-doctoral researchers in the past few years with previous affiliations at the University of Liège (Belgium), Umeå University (Sweden), and the Institute for Economic Analysis (Autonomous University of Barcelona, Spain). This has finally made it possible to engage in more opportunities for research and teaching interactions with full-time faculty at VU. Particularly, VU started to operate a successful external seminar series with eight international researchers giving a presentation in 2019. In line with this recent development, a new head for the Center of Expertise in Economics at VU was appointed: CEFER researcher Eglė Jakučionytė. The objectives of this centre are aligned with the original objectives of CEFER. Its primary goal is to raise the quality of economic and financial sciences in Lithuania by conducting and publishing high-quality research in relevant fields of economics and finance. The secondary goal is to raise the quality of economic education in Lithuania. VU and this centre for the first time participated in the European Job Market in Rotterdam in December 2019 with the goal to attract a recent PhD graduate as a post-doctoral researcher for the VU faculty.

The collaboration efforts with KTU involve a number of courses taught in 2019 at KTU, such as Alternative Investments as well as Quantitative Methods and Financial Modelling. Furthermore, Swapnil Singh participated in the PhD students' year progress report meeting and was involved in interviewing candidates for a professorship. Moreover, a research colloquium for the staff and doctoral students on how to do research in economics, how to create a research-conducive environment, and

develop a viable longer-term research strategy for the Faculty of Economics and Business Administration, was led by Povilas Lastauskas and Swapnil Singh. Finally, two compulsory PhD courses are offered jointly to PhD students from both KTU and VU. The Econometrics course, scheduled for spring 2020 at KTU, will be taught by two CEFER researchers and one researcher from the Applied Macroeconomic Research Division. In the autumn 2019 semester, the Research Methods course was delivered at VU to both cohorts of PhD students. This is the second year that such joint PhD courses are organised by CEFER with support from the Applied Macroeconomic Research Division and offered to PhD students.

Another important part of CEFER's collaboration with universities is involvement in applications for research grants as well as working on the resulting research projects when grant application is successful. Such successful grant applications, especially in collaboration with institutions in other countries, add to the reputation of a university in general.

Povilas Lastauskas, Director of CEFER, is a co-investigator of a project on the topic "Product and labour market reforms and economic activity in the EU countries", funded by the Polish-Lithuanian intergovernmental research grant DAINA, together with researchers from the Warsaw School of Economics, Applied Macroeconomic Research Division, and Vilnius University, and a main investigator of a project on the topic "Reassessment of the optimum currency area in the persistently heterogeneous European Union", together with researchers from Mendel University (Brno), Vienna University of Economics and Business, Austrian Institute of Economic Research, and VU. Moreover, he is involved in a project on the topic "How do firms adjust when trade stops? Labor markets, industrial linkages, and macroeconomic effects", together with researchers from the Applied Macroeconomic Research Division and Hong Kong University of Science and Technology.

CEFER researcher Patrick Grüning is working on the topic "Circular economy modelling and empowerment perspective in a small open economy", together with three researchers from KTU and researchers from the University of Brescia (Italy), Deutsche Bundesbank, Southampton Business School, and Potsdam Institute for Climate Impact Research, financed by a research grant with a duration of three years from the Research Council of Lithuania.

The Quantitative Economics programme

Thirty years ago, Lithuania restored its independence and started a fast-track of reforms aimed at improving both the country's institutions and its economy. University education and academic culture naturally were in the centre of the whirlpool of changes. However, in some fields of university education, changes did not come as fast as one might hope or maybe the damage done over the last fifty years was larger. Economics is a good example. Hence, one of CEFER's goals was to spearhead changes in teaching economics in Lithuania.

Since the inception of the research centre, CEFER researchers have contributed to teaching economics by designing and delivering courses at Vilnius University (VU) and Kaunas University of Technology (KTU). However, such separate courses were rather scattered contributions and thus failed to have a larger impact. PhD workshops organised by CEFER revealed the lack of basic knowledge that could be built on when pursuing a doctoral degree. A stronger push at a much earlier stage than the PhD level was needed to overcome the problems present in economics education. This was the

context that led to the Bank of Lithuania joining forces with VU and initiating a new bachelor programme in 2018. The new programme, called Quantitative Economics, was designed from scratch to shrug off the structural imperfections embedded in older frameworks and to take seriously the best practices of economics education in reputed Western universities.

Quantitative Economics provides training in economics and finance in a very structured way. One of the key principles applied in planning the programme is consistency, which is why many, especially basic subjects, are structured into larger courses that last one year rather than one semester. This principle ensures consistency within the course and between courses. The programme starts with courses in mathematics, statistics and the principles of economics. This paves the way for introducing students to the tools for economic and financial analysis and the first-hand experience of using statistical methods and statistical software. The programme continues with econometrics and advanced economics and finishes with applied courses in macroeconomics and microeconomics.

QE students at NASDAQ event



cs. Such a logically-tight structure allows the programme to deliver very ambitious content in a three-year timeframe.

To stay up-to-date with the newest developments in teaching economics at world-renowned universities, the programme is open-sources based and taught completely in English. It uses the CORE project, OpenStax, and other novel open-sources. Together with the latest trends in the industry, students learn to programme in R.

One of the most distinguishing features of Quantitative Economics is that it is a research-based programme. The courses are designed in a way that combines analytical rigour with economic intuition and provides students a glimpse of how the subject is evolving and what questions are being asked at the frontier of economics research. Courses make students ask questions about causality, identification, analyse implications for the aggregate level, and individual behaviour. The teachers are active in research and thus are capable of blending their expertise and insights with their courses, in this way sharing their enthusiasm about economics and finance with their students.

To ensure the high-quality level of the delivered courses and maximise positive spill-overs between learning and teaching, admission to the programme is very selective. The admission process involves an interview during

which applicants are asked logic questions and questions about data and topical economic events or phenomena. Then, students have to clear a cut-off based on their high school grades. The cut-off is the highest among undergraduate programmes in economics in Lithuania.

Currently the programme is in its second year and has two cohorts of students. Each cohort consists of approximately 30 students. This autumn, a third cohort should join the programme. The small size of each cohort allows teachers to use interactive teaching methods that would be impossible for audiences of 100 students and more. Moreover, every student is assigned a tutor – a professor who teaches at the programme and follows his or her progress throughout the programme's years and advises the student on academic matters.

Finally, the programme is proud of its social partners, who support the idea and bring high value-added to the programme. NASDAQ has offered scholarships and paid internships since the inception of the programme. The Bank of Lithuania, besides contributions to teaching and tutoring, has just accepted several students for summer internships as well. The support from social partners once again confirms that this programme is changing the face of economics education in Lithuania and that there is definitely a demand for such change from both the industry and the public sector.

Collaboration with STRATA

Doing research involves facing many diverse challenges. However, almost every researcher who considered studying issues relevant to the Lithuanian economy faced the same major hurdle: lack of data. Sometimes researchers would simply lack detailed micro-level data, sometimes the lack of data would mainly be the absence of contextual information or consistent datasets. Sometimes both reasons would apply. CEFER wants to address this problem by cooperating with different institutes and government bodies in Lithuania, creating a network of institutions that use data and knowledge to conduct policy-relevant research.

This year, CEFER initiated a collaboration on research activities with the Government Strategic Analysis Center (STRATA). STRATA is an expert institution that provides support for evidence-driven policy. To that end, STRATA has accumulated data and knowledge about the labour

market and the education system in Lithuania. Therefore, cooperation between CEFER and STRATA will allow the two institutions to bring together three types of resources that are highly important in the field of research: unique individual-level data on labour markets and educational attainment, modern statistical and econometric methods and soft information on the education system and the labour market in Lithuania. The collaboration would mainly involve conducting joint academic research by raising questions that are not only academically important but also relevant to decision makers. For instance, the first joint project, started in November 2019, is set to look deeper into the short-term effects of the optimisation of the school network on student achievements. The project is run by two CEFER researchers – Dr Eglė Jakučionytė and Dr Swapnil Singh – as well as STRATA policy analyst Indrė Pusevaitė.

1st Bank of Lithuania Invited Lecture Series

The fast pace of economics research is a boon to policy makers who, on a daily basis, are confronted with new challenges in an ever changing uncertain economic landscape. However, academic advances are only fruitful if they are succinctly conveyed to a wider group of researchers, both applied and academic. To facilitate this knowledge exchange, CEFER initiated an annual event called the Bank of Lithuania Invited Lecture Series. This is a three-day event, where during the first two days a leading researcher gives lectures on a specific topic. The last day is reserved for a workshop in which participants present papers that are broadly related to the lecture topic.

The inaugural lecture was held on 27–29 November, 2019 in Vilnius and was given by Prof Klaus Adam from the University of Oxford. The topic was "Learning and expectations formation in macroeconomics and finance". The course reviewed the implications of relaxing the rational expectations assumption in dynamic macroeconomic models. Specifically, it replaced the rational expectations hypothesis with the view that agents are learning and

constantly trying to improve their forecasts about variables related to their economic gain. Taking a pragmatic approach, the course first introduced the theoretic the foundations of learning models, generated the theoretical results about the asymptotic behaviour of learning models, and then moved on to the applications of these insights to the understanding of business cycles, monetary issues and asset price behaviour. The last day observed presentations of papers which, although, closely related to the course topic, were quite diverse. The paper topics ranged from optimal policy in bailing bank creditors to the introduction of a new and fast method of solving heterogeneous agent models.

Despite this being the first attempt to organise such a lecture series, we were surprised by the enthusiastic participation of academic and policy researchers from across Europe. This success further motivated us to make this a recurring annual event where academic researchers as well as policy makers participate to learn about the frontier of economics.

Klaus Adam



Conferences

One of the primary objectives of CEFER is to foster a dynamic network of international and national economic researchers. As per this objective, we strive to play an instrumental role in the organisation of international conferences. Last year we co-organised two conferences: the 25th International Panel Data Conference and the 1st Vilnius Winter Meeting (with the Applied Macroeconomic Research Division and Vilnius University), as well as served on the organisation committee for the 2nd Baltic Economic Conference (BEC).

We started the season with the 2nd BEC, a flagship event of the Baltic Economic Association. The inaugural edition took place in Vilnius, featuring Prof Hashem Pesaran from the Universities of Los Angeles and Cambridge. He is one of the world's most prominent researchers in macroeconomics and econometrics. The 2019 conference took place in Riga, Latvia, on 10–11 June, and was designed to bring together researchers from different fields

of economics. About 55 papers were presented, which covered the broad fields of labour economics, monetary policy, technology and innovations, political economy, etc. The keynote lecture was "Firm-to-firm trade: Imports, exports and the labour market" given by Francis Kramarz (CREST, ENSAE). Taking on the issue of gender imbalance in economics academia, there was also a special session on gender economics, organised in conjunction with the FROGEE Network (Forum for Research on Gender Economics in Eastern Europe and Emerging Economies).

During the conference, the Bank of Lithuania Vldas Jurgutis Award and the Award for Dissertation in the Field of Economics were presented. This year, a paper titled "The non-equivalence of labour market taxes: A real-effort experiment" by Matthias Gerhard Weber and Arthur Schram received the Vldas Jurgutis Award. The Bank of Lithuania Award for Dissertation in the Field of Economics was granted to Ada Kovaliukaitė for her dissertation

2nd Baltic Economic Conference



"The role of strategic beliefs in understanding strategic, pro-social and socially complementary behaviour."

July began with the 25th IPDC, which we jointly organised with Vilnius University. Artūras Juodis (University of Groningen) played an important organising role. The sole objective of this conference was to bring together economists, econometricians, statisticians and social scientists using panel data for their applied or theoretical research. During the two-day event, about 110 papers, divided between 30 sessions, were presented. There were four keynote speeches given by Manuel Arellano (CEMFI), Peter Egger (ETH Zurich), Bo Honore (Princeton University)

and Ivan-Fernandez Val (Boston University). The conference provided a personal touch when Jacques Mairesse (CREST) chaired the Zvi Griliches Lecture by providing an anecdote from the childhood of Zvi Griliches. The Bank of Lithuania awarded the best paper by a young econometrician – Louise Laage's (Yale University) "A correlated random coefficient panel model with time-varying endogeneity".

We ended the year with the 1st Vilnius Winter Meeting, which intends to bring together economists of Lithuanian origin to present their work during the winter holidays.

25th International Panel Data Conference



Interview with Agnė Kajackaitė

You received the Vladas Jurgutis Award in 2018 for your joint paper with Uri Gneezy and Joel Sobel, titled "Lying aversion and the size of the lie". Can you please explain in a few sentences what this paper is about?

In this paper, we analyse theoretically and experimentally the nature of the psychological costs of lying. We assume that people are not fully selfish agents – that is, they want to maximise their utility, but at the same time, they also have some psychological distaste (cost) when they lie. We show that people have an intrinsic cost of lying and a social image cost of lying. The intrinsic cost of lying comes from within – we have learned that lying is bad and our self-image gets hurt when we lie. The cost of lying to social image comes from outside – we do not want to look like liars in the eyes of others. In a series of lab experiments, where one can lie in order to earn more money, we show that some participants tell the truth (high cost of lying), some lie all the way (low cost of lying) and some lie but not to the maximum. Between-treatment comparisons suggest that the social image costs of appearing dishonest lead to non-maximal lies.

Your research involves performing a lot of lab experiments. What are the pros/cons of using experimental data?

Experimental data has very high internal validity – we have full control over the variables that we change; therefore, by changing A, we can see its effect on B and be pretty sure that no omitted variable is driving the effect. Another big advantage of experimental data is that in the lab we can measure the behaviours we would not be able to measure in the field. For instance, I conduct lots of experiments on lying. There is no field data, which would tell me, for example, how much men and women will be willing to cheat for low vs. high stakes in risky vs. non-risky environments. But it is very easy to study such behaviours in the lab. A clear disadvantage of using lab experiments is a non-representative sample – people who participate in our experiments are mostly university students in their 20s.

Should policy makers have any concerns for basing their policy decisions on experimental data? Should policy makers be using more experimental data?

Policy makers and any other people should understand the limitations of research methods and the limitations of the results following from these imperfect research methods. I do not see experimental data as a substitute for observational data, or vice versa. Combining both experimental and observational data can only be of use for policy makers. The popularity of "nudges" shows that



Agnė Kajackaitė

experimental data is becoming popular among policy makers, which makes me happy.

What do you think is the biggest challenge that your research field faces at this moment?

Scepticism about experimental data among some fellow economists and difficulties in publishing research using experimental data in top economics journals. But the situation is improving and using experimental data is becoming less of a taboo among somewhat more old-fashioned economists.

You gained a lot of media attention for another paper you wrote with Tom Chang, "Battle for the thermostat: Gender and the effect of temperature on cognitive performance". What temperature do you have your office thermostat set to, and do you think the Bank of Lithuania could improve its productivity by fixing the thermostat to a specific temperature?

My office temperature is around 24–25 Celsius. There is no golden standard when it comes to office temperature. The main takeaway of the paper is that when it comes to temperature in the office, it is not that it only affects our comfort, but it affects our productivity too. We also learn that women's productivity is affected by changes in temperature more strongly than the productivity of men. So, my recommendation for the Bank of Lithuania would be to ask each individual in a particular office to state her/his preferred temperature and set the temperatures in the offices according to these preferences. And when the opinions differ too much, putting more weight on the women's opinion could be an option, since their productivity is affected more than that of men.

Data Initiative

About Bank of Lithuania Datasets

As part of its objective to raise the quality of economic and financial sciences in Lithuania, CEFER researchers have worked with other departments at the Bank of Lithuania to make micro-level data available for research purposes. As a result, researchers at the Bank of Lithuania can access the micro-level data collected by the Bank of Lithuania. Two examples of such datasets are the Household Financial Monitoring Information System and the Loan Risk Database. Both of these datasets are discussed in more detail below.

The Loan Risk Database at the Bank of Lithuania

The Bank of Lithuania collects and administers records for the Loan Risk Database (LRD) since 1995. The database has been used to inform on macroprudential policy and evaluate credit risk for deposit-taking corporations and other financial institutions. The LRD has extensive information on loan characteristics along with loan payment history. This information, along with the panel element, makes the LRD valuable for economic and financial research.

The LRD provides monthly data at the loan-level for households and non-financial corporate borrowers. Virtually all loans granted by financial institutions in Lithuania are reported to the LRD.

The LRD is an extensive credit registry for the Lithuanian economy. This makes the dataset suitable for research on various macro-finance topics such as credit risk drivers and the role of banks in transmitting economy-wide shocks, to name a few. This dataset provides opportunities for research that are comparable to other datasets explored in many research publications.

The LRD has been used in several policy and research studies including Liaudinskas & Grigaite (2019) "Loss of a lending relationship: Shock or relief?" (Bank of Lithuania Working Paper Series 64), which is available on the Bank of Lithuania website at

https://www.lb.lt/uploads/documents/files/Liaudinskas_Lending%20relationships.pdf

The Household Financial Monitoring Information System

In early 2013, the Bank of Lithuania devised the Household Financial Monitoring Information System (HFMIS). It is an information system that combines the information of the LRD with the database of the Residents' Register Service and the database of the State Social Insurance Fund Board (SoDra).

Ten years later after the global financial crisis, it provides a unique perspective both on how household loans fared in Lithuania on a quarterly basis since 2003 and also on the distribution of borrowers and lenders. In contrast to most other datasets on household finance, the HFMIS provides administrative information on household loans, payment history, household labour income and demographic characteristics. The HFMIS reflects the majority of household loans issued by banks registered in the Republic of Lithuania; at the end of 2017 there were 640,556 households in the HFMIS database.

The HFMIS is already used extensively to monitor trends in household debt. For a recent report and key statistics captured by this data, you can refer to the "Survey of the Financial Situation of Households with Loans (2018)", which is available on the Bank of Lithuania website at

<https://www.lb.lt/en/publications/survey-of-the-financial-situation-of-households-with-loans-2018>.

How can I gain access to these databases?

In order to safeguard the confidentiality of respondents at the highest level, both LRD and HFMIS data is provided only under conditions of a restricted use contract between the researcher and the Bank of Lithuania. Only employees of the Bank of Lithuania can obtain access to these datasets. Furthermore, these datasets can be used only in specialised workspaces at the premises of the Bank of Lithuania.

External researchers who are interested in using this data for research projects are invited to come for a research visit at the Bank of Lithuania.

Selected publications

- Stoltenberg, C. A., & Singh, S. (2020). Consumption insurance with advance information. *Quantitative Economics*, 11(2), 671-711.
- Weber, M., Duffy, J., & Schram, A. (2018). An experimental study of bond market pricing. *The Journal of Finance*, 73(4), 1857-1892.
- Araujo, J. D., Lastauskas, P., & Papageorgiou, C. (2017). Evolution of bilateral capital flows to developing countries at intensive and extensive margins. *Journal of Money, Credit and Banking*, 49(7), 1517-1554.
- Weber, M. (2017). Choosing the rules: Preferences over voting systems for assemblies of representatives. *Journal of Economic Behavior & Organization*, 174, 420-434.
- Grüning, P. (2017). International endogenous growth, macro anomalies, and asset prices. *Journal of Economic Dynamics and Control*, 78, 118-148.
- Weber, M., & Schram, A. (2017). The nonequivalence of labour market taxes: A real-effort experiment. *The Economic Journal*, 127(604), 2187-2215.
- Donadelli, M., & Grüning, P. (2016). Labor market dynamics, endogenous growth, and asset prices. *Economics Letters*, 143, 32-37.

Other recent publications

- Lastauskas, P., & Stakėnas, J. (Forthcoming). Labour market institutions in open economy: Sectoral reallocations, aggregate adjustments, and spillovers. *Review of International Economics*.
- Constantinescu, M., & Lastauskas, P. (2018). The knotty interplay between credit and housing. *The Quarterly Review of Economics and Finance*, 70, 241-266.
- Lastauskas, P., & Stakenas, J. (2018). Openness and structural labor market reforms: Ex ante counterfactuals. *Contemporary Economic Policy*, 36(4), 723-757.
- Weber, M. (2018). The effects of listing authors in alphabetical order: a review of the empirical evidence. *Research Evaluation*, 27(3), 238-245.
- Singh, S., & Beetsma, R. (2018). Optimal monetary policy under sectoral interconnections. *De Economist*, 166(3), 309-336.
- Lastauskas, P., & Stakenas, J. (2018). Structural labour market reforms in the EU-15: Single-country vs. coordinated counterfactuals. *Structural Change and Economic Dynamics*, 44, 88-99.

Working/Discussion Papers

- Hemingway, B. (2020). Banking regulation and collateral screening in a model of information asymmetry.
- Hemingway, B. (2020). Macroeconomic implications of insolvency regimes.
- Donadelli, M., Grüning, P. & Hitzemann, S. (2019). Understanding macro and asset price dynamics during the climate transition.
- Jakučionytė, E. & Singh, S. (2019). Mortgage foreclosure risk after the Great Recession.
- Lastauskas, P. & Stakėnas, J. (2019). Does it matter when labor market reforms are implemented? The role of the monetary policy environment.
- Donadelli, M., Grüning, P. & Proškutė, A. (2019). Monetary policy, trade, and endogenous growth under different international financial market structures.
- Singh, S. & Stoltenberg, C. A. (2018). How much do households really know about their future income?
- Singh, S. (2018). Public insurance of married versus single households in the US: trends and welfare consequences.
- Donadelli, M., Grüning, P., Jüppner, M. & Kizys, R. (2018). Global temperature, R&D expenditure, and growth.
- Weber, M., Striaukas, J., Schumacher, M. & Binder, H. (2018). Network constrained covariate coefficient and connection sign estimation.
- Bertasiute, A., Massaro, D. & Weber, M. (2018). The behavioral economics of currency unions: Economic integration and monetary policy.
- Grüning, P. (2017). Heterogeneity in the internationalization of R&D: Implications for anomalies in finance and macroeconomics.
- Curatola, G., Donadelli, M. & Grüning, P. (2017). Technology trade with asymmetric tax regimes and heterogeneous labor markets: Implications for macro quantities and asset prices.
- Constantinescu, M. & Lastauskas, P. (2017). The knotty interplay between credit and housing.
- Jakučionytė, E. (2017). Personal bankruptcy, bank portfolio choice and the macroeconomy.
- Donadelli, M. & Grüning, P. (2017). Innovation dynamics and fiscal policy: Implications for growth, asset prices, and welfare.
- Hommes, C., Massaro, D. & Weber, M. (2017). Monetary policy under behavioral expectations: Theory and experiment.
- Lastauskas, P. & Tatsi, E. (2017). Spatial nexus in crime and unemployment in times of crisis.
- Araujo, J., Lastauskas, P. & Papageorgiou, C. (2016). Evolution of bilateral capital flows to developing countries at intensive and extensive margins.
- Curatola, G., Donadelli, M., Grüning, P. & Meinerding, C. (2016). Investment-specific shocks, business cycles, and asset prices.
- Weber, M. (2016). The effects of listing authors in alphabetical order: A survey of the empirical evidence.
- Lastauskas, P. & Stakėnas, J. (2016). Labour market institutions in open economy.
- Lastauskas, P. & Stakėnas, J. (2016). Openness and structural labour market reforms: Counterfactuals for Lithuania.
- Grüning, P. (2016). International endogenous growth, macro anomalies, and asset prices.
- Branger, N., Grüning, P. & Schlag, C. (2016). Commodities, financialization, and heterogeneous agents.
- Donadelli, M. & Grüning, P. (2016). Labor market dynamics, endogenous growth, and asset prices.
- Lastauskas, P. & Stakėnas, J. (2015). Global perspective on structural labour market reforms in Europe.

Some recent seminars

- Collateral booms and information depletion
Vladimir Asriyan, Centre de Recerca en Economia Internacional (CREI)
- Discriminatory pricing of over-the-counter derivatives
Sam Langfield, European Central Bank
- Distributional effects of surging housing costs under Schwabe's Law
Thomas Steger, Leipzig University
- Sticky prices and the transmission mechanism of monetary policy: A minimal test of New Keynesian models
Guido Ascari, University of Oxford & University of Pavia
- Do robots increase wealth dispersion?
Thomas Jansson, Sveriges Riksbank
- Patents to products: Innovation, product creation, and firm growth
Salomé Baslandze, Einaudi Institute for Economics and Finance
- Quantile connectedness: Modelling tail behaviour in the topology of financial networks
Yongcheol Shin, University of York
- Firm-level debt and employment
Alireza Sepahsalari, University of Bristol
- Interest rates, market power, and financial stability
David Martinez-Miera, Universidad Carlos III de Madrid
- Getting old is no picnic? Sector-specific relationship between workers age and firm productivity
Konstantins Benkovskis, Stockholm School of Economics in Riga and Bank of Latvia
- Technology gaps, trade and income
Thomas Sampson, London School of Economics
- Pay for politicians and political investment: Evidence from the French municipal elections
Nicolas Gavoille, Stockholm School of Economics in Riga
- Which ladder to climb? Wages of workers by job, plant, and education
Christian Bayer, University of Bonn
- Sticky expectations and consumption dynamics
Jiri Slacalek, ECB
- Importing political polarization? The electoral consequences of rising trade exposure
Kaveh Majlesi, Lund University
- International capital markets with time-varying preferences
Guliano Curatola, Goethe-University Frankfurt
- Long-run saving dynamics: Evidence from unexpected Inheritances
Jeppe Druedahl, University of Copenhagen
- Financial Innovation and asset prices
Grigory Vilkov, Frankfurt School of Finance Management
- Fiscal consolidations and finite planning horizons
Kostas Mavromatis, De Nederlandsche Bank (DNB)
- Climate change uncertainty, adaptation, and growth
Kamiar Mohaddes, University of Cambridge
- Risk aversion and the willingness to migrate in 30 countries
Peter Huber, Austrian Institute of Economic Research (WIFO)
- The importance of being prudent: Leverage and the informational content of dividends
Simas Kučinskas, University of Amsterdam
- Background noise? TV advertising affects real time investor behavior
Jūratė Liaukonytė, Cornell University
- The macroeconomics of central bank issued digital currencies
John Barrdear, Bank of England
- Financial effects of precautionary demand for oil
Renatas Kizys, University of Portsmouth
- The persistence of the criminal justice gender gap: Evidence from 200 years of judicial decisions
Anna Bindler, University of Gothenburg

Meet our new faces



Josh Ding will be joining CEFER in September 2020. This year, he completed his PhD in Economics from the University of Washington, where he worked in the Department of Economics, Foster School of Business, and the Department of Statistics. He also obtained a Master's degree in Economics from Boston University in 2013. He specialises in issues relating to international trade and international macroeconomics. His research interests include firm heterogeneity, market power, multinational production and the policy implications of their interactions, and the micro-foundations of international business cycle co-movement.



Milda Norkutė will join CEFER as a Principal Research Economist. Her research interests lie in the fields of panel data econometrics, applied macroeconomics and empirical finance. She was a researcher and senior lecturer at Lund University in Sweden, where her research was funded by the Jan Wallander and Tom Hedelius postdoctoral scholarship. She received a PhD from Lund University in 2016 under the supervision of Prof Joakim Westerlund and Prof David Edgerton. Her research has been published in highly ranked scientific journals, such as the *Journal of Econometrics* and the *Journal of Applied Econometrics*.



Renata Guobužaitė is visiting CEFER in 2020. Previously, she held the positions of Vice President of Asset Transition Management at J.P. Morgan (London) and Senior Consultant in Corporate Finance at PricewaterhouseCoopers. She also was a Senior Research Assistant at the EDHEC-Risk Institute, where she conducted research and published several papers, mainly in asset allocation, alternative assets, and quantitative finance areas. She has a Masters in Finance degree from London Business School and an MBA from Washington University in St. Louis. She is also a certified chartered financial analyst (CFA).

BoL/NBP/CEBRA/CEPR conference on

Adjustments in and to an uncertain world

A recent tendency to blame globalisation, close borders, increase barriers for international commerce and factor movements produce many uncertainties and a need to adapt and adjust behaviour. Events such as an increased concentration on domestic matters and engagement in trade wars by the US, the British decision to leave the European Union and an increase in global political and economic power by China, among others, call for a deeper understanding of how firms adjust their behaviour within such an uncertain and evolving environment. By focusing on micro-level decisions as well as the major constraints and frictions, we hope to deepen our understanding and draw useful policy implications to adjust faster and more efficiently in the inherently frictional, quickly changing and uncertain world.

The conference topics include but, by no means, are limited to:

- Adjustment margins of firms in the face of large adverse shocks;
- Behaviour of trading firms in an increasingly uncertain environment with rising protectionism, bilateralism, sanctions and global re-shuffling;
- The role of financial, institutional, informational, and other frictions in an uncertain environment;
- Impact of financial innovations and technologies on decisions of firms;
- The role of uncertainty and information processing capabilities by firms;
- The role of policy to aid adjustment process.

Keynote Speakers

Emmanuel Farhi, Harvard University and CEPR

Beata Javorcik, EBRD and University of Oxford and CEPR

Jennifer L'ao, Columbia University

Kalina Manova, University College London

Scientific Committee

Philippe Bacchetta (HEC Lausanne, Swiss Finance Institute and CEPR), **Julian di Giovanni** (Federal Reserve Bank of New York, CEBRA and CEPR), **Andrei A. Levchenko** (University of Michigan, CEBRA and CEPR), **Paweł Kopiec** (Narodowy Bank Polski), **Krzysztof Makarski** (Narodowy Bank Polski), **Povilas Lastauskas** (CEFER and Bank of Lithuania), **Aurelija Proškutė** (Bank of Lithuania)

Registrations open **5 June** and close on **22 June 2020**. The conference will be held on **24-25 September 2020**. In case a physical event cannot be held, a virtual event will be organised.