



# 76th Annual Congress of the International Institute of Public Finance | Online

**Public Finance, Natural Resources and Climate Change  
19-21 August 2020 | organized by University of Iceland, Reykjavík**

## Conference Agenda

### Session Overview

**Date: Tuesday, 18/Aug/2020**

11:00am - 1:30pm	IIPF Board of Management meeting (on invitation only)
2:00pm - 4:00pm	IIPF General Assembly of members (on invitation and registration only)

Date: Wednesday, 19/Aug/2020

8:00am - 9:30am	<b>Opening and Plenary I: Keynote I: Ottmar Edenhofer (Potsdam Institute for Climate Impact Research and Technical University Berlin), "Pigou in the Post-Corona Era"</b> Session Chair: <b>Clemens Fuest</b> , ifo Institute and LMU Munich
9:45am - 11:15am	<b>A01: Corporate Taxation and R&amp;D</b>  <b>9:45am - 10:07am</b> <b>Tax Reform, Demand Shocks, and Firms' R&amp;D Investment</b> <b>Jing Xing<sup>1</sup>, Katarzyna Bilicka<sup>2</sup>, Xipei Hou<sup>1</sup></b> <sup>1</sup> Antai College of Economics and Management Shanghai Jiao Tong University, China, People's Republic of; <sup>2</sup> Utah State University and Oxford University Centre for Business Taxation, John Huntsman Business School We investigate how policy-induced positive demand shocks affect firms' R&D investment by utilizing a major tax reform in China beginning in 2012 as a natural experiment. The replacement of the business tax with the value-added tax led to increased demand for firms in service industries. Using a sample of listed firms during the period 2009-2017, we show that affected firms increased their R&D investment significantly as a response to improved demand conditions, relative to firms that were not subject to the policy reform. R&D investment increased more strongly among firms that were larger and less risk-averse. Privately-owned firms also responded more than state-owned firms. Our study suggests that demand-increasing public policies are effective in stimulating private R&D investment, but the effects may be heterogeneous across different types of firms.  <a href="#">Xing-Tax Reform, Demand Shocks, and Firms' R&amp;D Investment-309.pdf</a>  <b>10:07am - 10:30am</b> <b>Cross-Border Effects of R&amp;D Tax Incentives</b> <b>Nadine Riedel<sup>1</sup>, Bodo Knoll<sup>2</sup>, Johannes Voget<sup>3</sup>, Maximilian Todtenhaupt<sup>4</sup>, Thomas Schwab<sup>5</sup></b> <sup>1</sup> University of Münster, GER, Germany; <sup>2</sup> University of Bochum, Germany; <sup>3</sup> University of Mannheim, Germany; <sup>4</sup> NHH, Norway; <sup>5</sup> University of Mannheim, Germany Existing evidence shows that R&D tax incentives boost countries' private sector R&D. As multinational enterprises (MNEs) account for nearly all private sector innovations, it is unclear, however, whether firms engage in genuinely new R&D or whether R&D is reallocated across borders. Drawing on data on the unconsolidated R&D activity of MNEs in Europe, we show that R&D tax incentives serve as beggar-thy-neighbor instruments: More generous tax incentives at one group location increase MNEs' R&D investments in the policy-changing country, while lowering R&D investments at foreign group locations. Globally, firms hardly respond to changed R&D tax incentives.  <a href="#">Riedel-Cross-Border Effects of R&amp;D Tax Incentives-519.pdf</a>  <b>10:30am - 10:52am</b> <b>Fostering R&amp;D -- On The Role Of R&amp;D Tax Incentives And Public Institutions</b> <b>Martina Baumann<sup>1</sup>, Bodo Knoll<sup>2</sup></b> <sup>1</sup> Institute for Employment Research, Germany; <sup>2</sup> Ruhr University Bochum, Germany The purpose of our study is to determine how countries can attract foreign R&D activities and promote national R&D activities in industrialized and in developing countries. We assess the relative importance of different determinants of R&D activities, particularly the role of tax incentives, secure property rights and good governance. For the analysis, we make use of patent applications from inventors worldwide and add information on institutional quality and R&D tax incentives. Our results suggest that the impact of institutional quality is larger for emerging/developing countries on R&D activities than for high-income countries. Additionally our analysis considers the role of institutional quality, R&D tax incentives and patent quality in driving patent ownership out of markets. The results show that a decline in the quality of governance institutions and R&D tax incentives increases the probability that patent ownership is relocated to foreign countries.  <a href="#">Baumann-Fostering R&amp;D -- On The Role Of R&amp;D Tax Incentives And Public Institutions-614.pdf</a>  <b>10:52am - 11:15am</b> <b>Patent Boxes and the Success Rate of Applications</b> <b>Ronald Davies, Dieter Kogler, Ryan Hynes</b> University College Dublin, Ireland Patent boxes significantly reduce the tax rate applied to income earned from a patent. Existing work finds that those reductions increase the number of patents. That said, not all patents are equally novel. In particular, the patent box encourages the submission of patents of marginal novelty, a selection effect that would reduce the average success rates of patents. At the same time, the increased return to patenting encourages additional effort in application preparation and prosecution, increasing success rates. While this predicts an ambiguous effect, due to lower financing costs, the net impact should be smaller for frequent innovators. We use data from applications to the European Patent Office from 1978 to 2017 and find that the introduction of a patent box increases the average success rate of applications by 4.4 percentage points, with the estimated effect becoming negative for frequent innovators.  <a href="#">Davies-Patent Boxes and the Success Rate of Applications-533.pdf</a>
9:45am - 11:15am	<b>A02: Environmental Economics I</b>  <b>9:45am - 10:07am</b> <b>Is Natural Resource Taxation Dynamic in India? Evidence from State-specific Buoyancy Estimates</b> <b>Lekha S Chakraborty<sup>1</sup>, Emmanuel Thomas<sup>2</sup>, Piyush Gandhi<sup>3</sup></b> <sup>1</sup> NIPFP, India; <sup>2</sup> JNU, India; <sup>3</sup> Oxford University The dynamics of natural resource taxation – the payment due to the sovereign owner (government) in exchange for the right to extract the mineral substance – is complex, how it is fixed and paid. Using the ARDL methodology, we have tried to estimate the natural resource tax buoyancy within States and between States in a panel long with the own tax revenue, and analysed the short run and long run coefficients and their speed of adjustment. Using HP filter, we tried to estimate the potential GDP, and also analysed the cyclical of tax buoyancy using output gap variable across states. Our findings revealed that natural resource taxation is a buoyant source of revenue and comparable to the buoyancy coefficients of other taxes across States, and though the coefficients are not always above unity across States.  <a href="#">Chakraborty-Is Natural Resource Taxation Dynamic in India Evidence-460.pdf</a>  <b>10:07am - 10:30am</b> <b>Household Preferences for Electric and Hybrid Cars</b> <b>Patrick Bigler, Doina Radulescu</b> University of Berne, Switzerland Worldwide, the road transport sector accounts for a large share of CO2 emissions. However, despite generous government programs to subsidise electric and hybrid cars, their uptake continues to be very low. In this paper we

employ a rich dataset including information on 133,000 registered cars in the Swiss Canton of Bern, as well as a large number of household socio-demographic characteristics to analyse household choice and their willingness to pay for environmentally friendly cars. Using discrete choice models our results reveal a very large, negative and significant effect of car prices. Wealth is positively correlated with the probability to choose an electric vs. a gasoline driven car but has no effect on hybrid car choice. Solar panel (PV) ownership as well as 'green electricity' also has a very large positive effect on the probability of owning an electric or hybrid vs. a gasoline driven car.

 [Bigler-Household Preferences for Electric and Hybrid Cars-499.pdf](#)

10:30am - 10:52am

### An Axiomatic Characterization of a Generalized Ecological Footprint

**Thomas Kuhn, Radomir Pestow, Anja Zenker**

University of Technology Chemnitz, Germany

The purpose of this paper is to propose an axiomatic characterization of ecological footprint indices. Using an axiomatic approach, we define a set of axioms representing the properties considered appropriate to ecological footprint measures in general. It can be shown that there exists a generalized index which is an affine function of a country's consumption share on world production, measured in terms of the land area appropriated. As an implication, the well-known compound based footprint index used by the Global Footprint Network can be characterized as a specification of the generalized index, only if the norm of the index is arbitrarily fixed to 1. With respect to empirical applications, the proposition of generalized and axiomatically characterized measures for the ecological burden by human activity may be considered as the main contribution of the paper.

 [Kuhn-An Axiomatic Characterization of a Generalized Ecological Footprint-685.pdf](#)

10:52am - 11:15am

### Research on Innovative financing for Biodiversity Conservation

**Chen Shaoqiang, Qin Fengqin**

Chinese Academy Of Fiscal Sciences, China, People's Republic of

As an integral part of natural resources, biodiversity affects climate change. The externality of biodiversity and the ecological civilization determine that public fiscal should play a role and guide social capital to protect biodiversity. Since the early 1990s, the biodiversity crisis has attracted the attention of many countries. However, the biodiversity is decreasing year by year, and the shortage of funds is an important reason. We focus on how the GEF and Contracting parties on biological diversity are performing in terms of funds, what problems they have and what innovative financing measures they take. This paper points out that in addition to public financial funds, the government must broaden financing channels, bring financial institutions such as banks, environmental funds and relevant enterprises into the agreement, give full play to new forms of cooperation such as PPP, and finally realize diversified financing forms with government as the leading role, market as the main body, social organizations and individual participation.

 [Shaoqiang-Research on Innovative financing for Biodiversity Conservation-407.pdf](#)

9:45am - 11:15am

## A03: Political Economy I

9:45am - 10:07am

### How Do Politicians Respond to News and Data Disclosure? Evidence from the Opencivitas Project in Italy

**Francesco Porcelli<sup>3</sup>, Emanuele Bracco<sup>1</sup>, Ben Lockwood<sup>2</sup>, Michela Redoano<sup>4</sup>, Antonio Schiavone<sup>5</sup>**

<sup>1</sup>University of Verona; <sup>2</sup>University of Warwick; <sup>3</sup>SOSE SpA, Italy; <sup>4</sup>University of Warwick; <sup>5</sup>University of Warwick

In this paper we exploit the introduction of an open data initiative initiated by the Italian Government in 2014 to analyse the effect of relevant data disclosure on municipal budget allocations. Using linear panel data models, we estimate the impact that media coverage and data disclosure generate on spending behaviour at local level. Our results show that media coverage seems to be correlated with expenditure reduction only when interacted with data disclosure. Therefore, data disclosure appears more effective than media coverage in controlling the level of expenditure.

 [Porcelli-How Do Politicians Respond to News and Data Disclosure Evidence-568.pdf](#)

10:07am - 10:30am

### Local Political Budget Cycle: The Case Of Roads And Transportation Investments In Italy

**Riccardo Secomandi<sup>1</sup>, Leonzio Rizzo<sup>2</sup>, Massimiliano Ferraresi<sup>3</sup>**

<sup>1</sup>University of Ferrara and University of Parma; <sup>2</sup>University of Ferrara and IEB; <sup>3</sup>JRC European Commission

Road projects are highly visible and clearly identifiable with municipal governments. This is the reason why this type of capital expenditure could be used by politicians to strategically drive the vote of their electorate. We test the existence of the political budget cycle in roads and transportation capital expenditures in the Italian municipalities. We find that municipal investments for roads and transportation in the year before local elections is almost 30% higher than in electoral years. Furthermore, we point out that there is a shift in favor of this type of expenditure in the pre-electoral years, compared to other capital expenditures. Little is known about efficiency gains of the expenditure used for electoral purposes. The present paper shows that investments for roads and transportation do not reduce the probability of accidents during the pre-electoral period but only one year after the election.

 [Secomandi-Local Political Budget Cycle-491.pdf](#)

10:30am - 10:52am

### The Political Economy Of Coastal Destruction

**Albert Solé-Ollé, Elisabet Viladecans-Marsal, Pierre Magontier**

U. of Barcelona, Spain

We study the role of inter-governmental cooperation in the preservation of coastal land from development in Spain. Keeping coastal land undeveloped may provide benefits (e.g., preservation of open space) or costs (e.g., foregone jobs) to both residents and non-residents in the political jurisdiction. Therefore, local governments deciding in isolation –and not accounting for the welfare of non-residents– may not choose the right amount of development. We rely on a close-elections Regression Discontinuity Design to investigate how political alignment among neighboring municipalities –which may enhance the incentives to cooperate, and so to account for the welfare of non-residents– affects development close to shore. We find that municipalities where the party ruling a majority of municipalities in a neighboring area barely won the local election develop less land than municipalities where the same party barely lost, a result suggesting that lack of cooperation leads to over-development.

 [Solé-Ollé-The Political Economy Of Coastal Destruction-283.pdf](#)

10:52am - 11:15am

### Gender Differences in Political Strategies: Local Public Spending Along the Political Budget Cycle

**Paola Profeta, Carmela Accettura**

Bocconi University, Italy

We empirically test whether the gender of politicians affects political strategies through engagement in political budget cycles. We exploit mixed-gender races among mayoral candidates in Italian municipalities in the period 2002-2017. Using a Regression Discontinuity Design, we show that male mayors who are elected by a small margin against a female opponent are more likely to engage in strategic spending at pre-electoral and electoral years, as compared to female mayors.

	<p> <a href="#">Profeta-Gender Dierences in Political Strategies-192.pdf</a></p>
<p>9:45am - 11:15am</p>	<p><b>A04: Distributional Effects of Taxation</b></p> <p>9:45am - 10:07am</p> <p><b>Distributional National Accounts in the Welfare State: Sweden, 1930–2016</b>  <b>Sebastian Escobar<sup>1</sup>, Olle Hammar<sup>2</sup>, Daniel Waldenström<sup>3</sup>, Gabriel Zucman<sup>4</sup></b>  <sup>1</sup>Center for Economic Studies (CES), LMU Munich; <sup>2</sup>Uppsala University; <sup>3</sup>Research Institute of Industrial Economics (IFN); <sup>4</sup>University of California, Berkeley</p> <p>This paper presents new evidence on the evolution of income and wealth inequality in Sweden since 1930. The basis for the analysis is the distributional national accounts (DINA) methodology and to match individual register data with macroeconomic totals from the national accounts and thereby compute new estimates of pre- and post-tax/transfer distributions of income and wealth in Sweden. The paper makes several contributions to the literature on income and wealth distribution. It is the first paper to apply the recent DINA methodology using full-population administrative registers that cover multi-decadal panels. This allows for an extensive scrutiny of a range of the assumptions and method approaches used in past DINA-studies of, e.g., inequality in the US and France. Furthermore, the paper will be the first one that studies the DINA series for a Scandinavian welfare state, Sweden, over its entire evolution since 1930.</p> <p> <a href="#">Escobar-Distributional National Accounts in the Welfare State-152.pdf</a></p> <hr/> <p>10:07am - 10:30am</p> <p><b>(Re-)Distributional Aspects of In-kind Transfers in Germany</b>  <b>Lukas Riedel, Holger Stichnoth</b>  ZEW Mannheim, Germany</p> <p>Creating distributional national accounts (DINA; e.g. Piketty, Saez, and Zucman, 2018) requires allocating all government expenditure to individuals in order to compute their post-tax, post-transfer income. A sizeable part of government expenditure is in-kind spending, either in the form of individualized transfers or of collective consumption expenditure. Because of data limitations, the existing DINA studies allocate the collective consumption expenditure either proportionally to post-tax cash income or as a lump-sum transfer. In this paper we provide evidence on the way some of the collective consumption expenditure is actually distributed. We focus on public spending on education, which makes up about 5% of national income in most OECD countries. We find that, both in the US and Germany, education spending tends to go disproportionately to the bottom half of the income distribution. Moving beyond the cross-section, we find that individuals with higher lifetime earnings indeed receive substantially more in education spending.</p> <p> <a href="#">Riedel-(Re-)Distributional Aspects of In-kind Transfers in Germany-405.pdf</a></p> <hr/> <p>10:30am - 10:52am</p> <p><b>Middle Class Decline In Finland 1995-2012: Decomposition And Directional Mobility</b>  <b>Sami Remes</b>  Tampere University, Finland</p> <p>This paper investigates middle class decline in Finland from 1995 to 2012. The purpose was to examine the subgroup contributions, the role of structural change, and directional mobility. The results from earlier studies about the middle class decline in Finland were confirmed, and decomposition analysis indicates that the majority of the decline has been due to the rate-effect, especially among the lowest educated population. Furthermore, changes in age and education structures have contributed to the decline. Results of the decomposition are supported by the mobility results, which indicate that population with tertiary (no secondary) degree have been subject to upward (downward) mobility over the observed time period. In conclusion, the middle class decline and polarization in Finland have asymmetrically affected different education groups. Most educated have climbed up the income distribution, while the lowest educated group have fallen.</p> <p> <a href="#">Remes-Middle Class Decline In Finland 1995-2012-276.pdf</a></p> <hr/> <p>10:52am - 11:15am</p> <p><b>Taxation and the Distributional Impact of Inflation: The U.S. Post-War Experience</b>  <b>Matthias Wieschemeyer<sup>1</sup>, Bernd Süßmuth<sup>2,3</sup></b>  <sup>1</sup>Halle Institute for Economic Research (IWH), Germany; <sup>2</sup>Leipzig University; <sup>3</sup>CESifo</p> <p>The effects of inflation on the income distribution are multi-faceted. For imperfect internalization of price dynamics, progressive taxation can mitigate or increase redistributive effects of inflation. Recently available series allow a pre-tax/post-tax perspective by quintile income share on the phenomenon. Against this backdrop, we use local projections to estimate dynamic responses of inequality and tax progressivity to inflation for the period from 1962 to 2016. We find that the bottom two quintiles gain and the fourth quintile lastingly loses in share in the transition from gross to net. This lends support to the view that the currently witnessed hollowing out of the middle class in the United States is path dependent on the interaction of taxation and inflation. According to estimates identifying the two indexation regimes of the federal tax schedule, this path dependency is rooted in the first half of the analyzed postwar period.</p> <p> <a href="#">Wieschemeyer-Taxation and the Distributional Impact of Inflation-251.pdf</a></p>
<p>9:45am - 11:15am</p>	<p><b>A05: Local Public Finance II</b></p> <p>9:45am - 10:07am</p> <p><b>Under Control vs Self-reconstruction After Fiscal Bankruptcy on Municipalities</b>  <b>Haruaki Hirota<sup>1</sup>, Hideo Yunoue<sup>2</sup></b>  <sup>1</sup>Musashi University, Japan; <sup>2</sup>Nagoya City University, Japan</p> <p>The purpose of this paper is to analyze the fiscal effects of municipal fiscal bankruptcy by applying the synthetic control method to comparative case studies. In particular, we contribute to the literature by comparing the fiscal effects of the statuses "under control" and "self-reconstruction" after fiscal bankruptcy. Being designated "under control" might contribute to moral hazard during fiscal reconstruction because such municipalities are expected to receive fiscal support in the post-fiscal bankruptcy period. Our main contribution is the finding that the "under control" designation creates moral hazard in the fiscal reconstruction period. Municipalities designated "under control" slowly reduce their expenditures. By contrast, "self-reconstruction" status is associated with rapid fiscal reconstruction, as such municipalities quickly reduce not only investment expenses but also personnel and non-personnel expenses. As a result, there is greater and more rapid expense reduction under the "self-reconstruction" than the "under control" designation.</p> <p> <a href="#">Hirota-Under Control vs Self-reconstruction After Fiscal Bankruptcy-224.pdf</a></p> <hr/> <p>10:07am - 10:30am</p> <p><b>A Tractable Yardstick Competition Model of the Local Public Goods Provision: Efficiency evaluation and policy applications</b>  <b>Yasuyuki Nishigaki<sup>1</sup>, Yuzo Higashi<sup>2</sup></b>  <sup>1</sup>Ryukoku University, Japan; <sup>2</sup>Kushiro Public University of Economics</p> <p>The yardstick competition theory demonstrates how intergovernmental competition can be used to regulate the</p>

performance of local governments. However, as most studies use extensive game type theoretic models using simplified strategic options, their results are not derived in a directly comparable manner with the numerous contributions of the so-called first-generation theories, such as the 'voting with their feet' model or the general equilibrium regional model. Moreover, there are some difficulties in applying these extensive game type models to policy analysis in local public finance. In this paper, a yardstick competition model, based on the principal and agent model of Ferejohn (1986) and Seabright (1996), is used in order to facilitate directly comparable analysis without restricted assumptions of perfect information or free and costless mobility of residents. We also study the efficiency of the public goods provision and the effects of subsidies to correct allocative efficiency as an example of application to policy analysis.

 [Nishigaki-A Tractable Yardstick Competition Model of the Local Public Goods Provision-186.pdf](#)

10:30am - 10:52am

#### Municipal Merger and Taxes

**Marko Koethenbueger, Christian Stettler**

ETH Zurich, Switzerland

Municipal mergers are commonly implemented in federally-organized economies, with the intention to realize economies of scale and cost savings. Tax effects of mergers are less frequently expected and analyzed. In this paper, we use the universe of Swiss municipalities to test for tax effects of mergers. Swiss municipalities enjoy a huge degree of tax autonomy and experienced various merger waves over the time period 1986 to 2018. One of our main findings is that municipal mergers reduce the municipal tax rate in average by 6.7 percent. Moreover, we find that municipalities which experience large losses in autonomy due to merger are compensated by higher tax rate reductions.

 [Koethenbueger-Municipal Merger and Taxes-567.pdf](#)

10:52am - 11:15am

#### Does Size Matter? Evidence from Municipality Break-Ups

**Gissur Ó Erlingsson<sup>1</sup>, Jonas Klarin<sup>2</sup>, Eva Mörk<sup>3</sup>**

<sup>1</sup>Centre for Municipal Studies, Linköping University; <sup>2</sup>Department of Economics and UCFS, Uppsala University;

<sup>3</sup>Department of Economics, UCFS and UCLS, Uppsala University, and CESifo, IEB, IZA

Municipal amalgamations have been implemented across the globe to meet public sector challenges. Advocates argue that this will lead to increased cost-efficiency through economies of scale. However, several empirical studies have rejected these expectations. This paper proposes a novel approach to the general question about size, efficiency and economies of scale by analyzing how municipal splits affect costs. 7 voluntary break-ups of Swedish municipalities, resulting in 14 new units, are analyzed. To estimate causal effects, the matrix completion method with nuclear norm minimization is employed. Contrary to theoretical expectations no general trend of increasing costs are observed, as would have been the case if the municipalities lost economies of scale.

 [Erlingsson-Does Size Matter Evidence from Municipality Break-Ups-437.pdf](#)

9:45am - 11:15am

#### A06: Pensions and Retirement II

9:45am - 10:07am

#### The Adequate Rate of Substitution at Retirement and the Role of Pension Funds: Evidences from Italian Data

**Luca Di Gialleonardo<sup>1</sup>, Mauro Mare<sup>2</sup>, Antonello Motroni<sup>3</sup>, Francesco Porcelli<sup>4</sup>**

<sup>1</sup>Mefop, Italy; <sup>2</sup>Luiss, Italy; <sup>3</sup>Mefop, Italy; <sup>4</sup>Sose, Italy

In this paper, we highlight the importance of strengthening the role of the second pillar in an overall balanced social security system. In particular, in countries like Italy, characterised by a considerable Pay-As-You-Go first pillar and a high demographic dependency ratio, private pension funds play a key role since they could provide a crucial supplement to benefits from the mandatory pensions. Using Italian data, namely the Bank of Italy SHIW, we estimate the adequate net replacement rate needed to maintain one's standard of living in old age and in particular the level of pension coverage that should be guaranteed by private pension arrangements. Estimates are provided according to the fixed effect and the fixed effect ordered logit empirical models and display an adequate net replacement rate ranging from 85.60% to 86.02% depending if we use the former or the latter.

 [Di Gialleonardo-The Adequate Rate of Substitution at Retirement and the Role of Pension Funds-201.pdf](#)

10:07am - 10:30am

#### Opt-in or Opt-out? The Effect of Defaults on Public Pension Enrollment

**Tabea Bucher-Koenen<sup>2,3</sup>, Luisa Wallossek<sup>1</sup>, Joachim Winter<sup>1,3,4</sup>**

<sup>1</sup>University of Munich; <sup>2</sup>ZEW (Leibniz Centre for European Economic Research); <sup>3</sup>Munich Center for the Economics of Aging (MEA); <sup>4</sup>CESifo

How do defaults affect individual enrollment when the choice menu is simple? We study this question for very low income earners (so-called *mini-jobs*) in Germany. Enrollment in the public pension insurance is optional for mini-jobs. Their enrollment choice is purely binary: to enroll or not to enroll. After a reform in 2013 the default changed, going from opt-in to opt-out. We take advantage of this reform to evaluate the default's effect on individual enrollment examining administrative data. In line with the existing literature, we find a clear impact of the default on the enrollment rates. Four years after implementing an opt-out regime, the share of contributors tripled from 9 to 27 percent. However, the vast majority of mini-job employees opts-out from the default enrollment. This pattern derives from less than 15 percent of the individuals exhibiting perfectly passive behavior, while two thirds can be classified as never takers.

 [Bucher-Koenen-Opt-in or Opt-out The Effect of Defaults on Public Pension Enrollment-623.pdf](#)

10:30am - 10:52am

#### The Role of a Pension Fund

**Matthias Schön**

Deutsche Bundesbank, Germany

Demographic change consists of two developments: A slow, monotonic and permanent ageing effect caused by increasing life expectancy; A more rapidly changing, non-monotonic and less permanent cohort effect caused by fluctuations in cohort-size. We show that the ageing effect has a positive impact on the returns generated within a PAYG pension system. The cohort effect, by contrast, results in winners and losers. Using a quantitative OLG model we show that the two effects cause return differentials of 1.5% between generations. We show which pension modifications are necessary so that no generation is better or worse off than another. To address the ageing effect, an increase in retirement age from 65 in 1960 to 81 in 2100 would be necessary. To resolve the cohort effect, a pension fund would have to stabilise the pension system. Introduced in 1960, this fund would now amount to more than 40% of GDP.

 [Schön-The Role of a Pension Fund-501.pdf](#)

10:52am - 11:15am

#### Short Planning Horizons and the Save More Tomorrow Program

**Erin Cottle Hunt<sup>1</sup>, T. Scott Findley<sup>2</sup>**

<sup>1</sup>Lafayette College, United States of America; <sup>2</sup>Utah State University, United States of America

We offer theoretical support for employer-sponsored Save More Tomorrow (SMarT) programs in a model with

perfect credit markets and a short-sighted individual who only plans a fixed number of years into the future. We find that the optimal SMarT savings rate is positive. We also compute consumption equivalent variations (CEV) and find short-sighted individuals with a five year planning horizon. (i) would be willing to give 13% of lifetime consumption to have a SMarT program if they did not have social security, (ii) would be willing to give up 9% of lifetime consumption to have a SMarT program instead of social security, and (iii) would give up 3% of lifetime consumption to have a SMarT program in addition to social security. Our results contrast with a model of hyperbolic discounting; wherein the SMarT plan does not change savings-consumption decisions in the absence of credit market imperfections

 [Cottle Hunt-Short Planning Horizons and the Save More Tomorrow Program-554.pdf](#)

9:45am - 11:15am

## A07: Public Finance

9:45am - 10:07am

### Classification of Monetary and Fiscal Dominance Regimes Using Machine Learning Techniques

**Natascha Hinterlang<sup>1,2</sup>, Josef Hollmayr<sup>2</sup>**

<sup>1</sup>Goethe University Frankfurt; <sup>2</sup>Deutsche Bundesbank

This paper identifies U.S. monetary and fiscal dominance regimes using machine learning techniques. The algorithms are trained and verified by employing simulated data from Markov-switching DSGE models, before we actually classify regimes from 1968-2017 using actual U.S. data. All machine learning methods outperform a standard logistic regression concerning the simulated data. Among those the Boosted Ensemble Trees classifier yields the best results. We find clear evidence of fiscal dominance before Volcker. Monetary dominance is classified between 1984-1988, before it turns to a fiscally led regime around the stock market crash lasting until 1994. Until the beginning of the new century, monetary dominance is established, while the more recent evidence following the financial crisis is mixed with a tendency towards fiscal dominance.

 [Hinterlang-Classification of Monetary and Fiscal Dominance Regimes Using Machine Learning Techniques-179.pdf](#)

10:07am - 10:30am

### The Decline in Public Investment: Social Dominance Or Too-Rigid Fiscal Rules

**Mar Delgado-Tellez, Esther Gordo, Ivan Kataryniuk, Javier J Perez**

Bank of Spain

Public investment in advanced economies is at historical lows, and shows a declining trend since at least the 1980s. Two duelling hypotheses: (i) social dominance: this is related to structural factors, given the upward social expenditure trends (linked to ageing populations), and the operation of the government budget constraint (limits to further increase significantly tax revenues and public debt, in a context of secular stagnation); (ii) too-rigid fiscal rules' frameworks cause fiscal retrenchment episodes to hinge heavily on public capital expenditure, that does not recover enough in the subsequent expansion, creating a sort of downward hysteresis behaviour in this budgetary item. In this paper we look jointly at both sets of duelling explanatory factors, and show that both are key to understand public investment dynamics in advanced economies over the past decades.

 [Delgado-Tellez-The Decline In Public Investment-418.pdf](#)

10:30am - 10:52am

### Public Expenditure and the Risk of Social Dominance

**Ludger Schuknecht<sup>1</sup>, Zemanek Holger<sup>2</sup>**

<sup>1</sup>OECD, France; <sup>2</sup>Federal Ministry of Finance, Germany

Based on the observation of an unabated trend towards higher social spending ratios in advanced countries, the study analyzes the risk of "social dominance", where social expenditures dominate fiscal policy, and undermine growth and fiscal sustainability. We scrutinize this risk by analyzing drivers of social expenditures and their interaction with other fiscal variables. Results show, that social expenditure expansion is largely ageing driven, it crowds out other primary expenditures and there is evidence of unsustainability. These findings and the accelerating trend of population ageing and particularly high political costs to reforming social expenditure suggest significant and rising risks of "social dominance".

 [Schuknecht-Public Expenditure and the Risk of Social Dominance-145.pdf](#)

10:52am - 11:15am

### Effective Tax Rates on Residential Property

**Bert Brys, Bethany Millar-Powell, Pierce O'Reilly, Alastair Thomas**

Organisation for Economic Cooperation and Development, France

This paper develops a new methodology to calculate the tax burden on investment in housing; the paper derives both Marginal Effective Tax Rates (METRs) and Average Effective Tax Rates (AETRs) within an investment framework that takes into account that the recurrent return on housing varies over time with the value of the housing asset. The methodology is applied to owner-occupied and rented residential property in 40 OECD member and partner countries for investment that is financed with debt or equity. The paper finds that owner-occupied, debt-financed housing is the most tax-favoured housing asset, due to generous mortgage interest provisions and untaxed imputed rent and capital gains. The paper also finds that high-income taxpayers are best placed to benefit from these policies.

 [Brys-Effective Tax Rates on Residential Property-398.pdf](#)

11:30am - 1:00pm

## B01: Corporate Taxation and Profit Shifting

11:30am - 11:52am

### Innocent until proven guilty: Dutch Shell Companies and International Tax Planning

**Arjan Lejour<sup>1,2</sup>, Jan Mohlmann<sup>2</sup>, Maarten Van 't Riet<sup>2</sup>**

<sup>1</sup>Tilburg university, Netherlands, The; <sup>2</sup>CPB Netherlands Bureau for Economic Policy Analysis

This paper uses unique data of the financial flows of Dutch special purpose entities (SPEs). These data include the origin and destination country of dividend, interest, and royalty flows passing the Netherlands. These flows amount to 140 billion euro in 2016. Combing the data on corporate taxation and withholding taxes with the bilateral flows we assess the potential tax gains for multinational companies using Dutch SPEs. There are substantial tax savings for royalties when Dutch SPEs are used compared to a direct flow between the origin and destination country. We cannot find such tax savings for dividends and interest based on statutory tax rates. Controlling for country characteristics in our regression analysis we find that tax differentials partially explain the geographical patterns of income flows diverted through the Netherlands. This is the case for the likelihood that a route is used, as well as for the size of the flows.

 [Lejour-Innocent until proven guilty-397.pdf](#)

11:52am - 12:15pm

### Territorial Tax Reform and Profit Shifting by US and Japanese Multinationals

**Makoto Hasegawa**

Kyoto University, Japan

In 2009, Japan began to exempt dividends paid by Japanese-owned foreign subsidiaries to their parent firms from home-country taxation. This tax reform switched Japan's corporate tax system to a territorial tax system that exempts foreign income from home-country taxation. I examine the impact of the territorial tax reform on the profit-shifting behavior of Japanese multinationals. I analyze the change in the sensitivity of the reported profits of

Japanese-owned foreign subsidiaries to host countries' corporate income tax rates after the tax reform, using US-owned foreign subsidiaries as a comparison group. I find that the sensitivity of the pre-tax profits of Japanese-owned foreign subsidiaries, particularly large subsidiaries, to host countries' corporate tax rates significantly increased in response to the announcement of the territorial tax regime in 2008, relative to that of the US-owned foreign subsidiaries. This suggests that the introduction of the territorial tax system facilitated profit shifting by Japanese multinationals.

 [Hasegawa-Territorial Tax Reform and Profit Shifting by US and Japanese Multinationals-461.pdf](#)

12:15pm - 12:37pm

### **(Un)intended Consequences Of Consolidation And Formula Apportionment?**

**Simon Loretz**

Austrian Institute of Economic Research, Austria

This paper investigates tax revenue effects of consolidation and formula apportionment. In addition to the static tax revenue effect the paper provides a theoretical foundation for the redistributive effects. Using a large and recent dataset the main results of Devereux and Loretz (2008) are replicated and used to test the alternative determinants against each other. While the tax rate is found to have some explanatory power, the production technology and nominal wages are found to be more important driving forces of the tax revenue impact.

 [Loretz-\(Un\)intended Consequences Of Consolidation And Formula Apportionment-222.pdf](#)

12:37pm - 1:00pm

### **Optimisation Frictions and the Fixed Cost of Profit Shifting**

**Katarzyna Bilicka<sup>1,2</sup>, Michael Devereux<sup>2</sup>, Irem Güceri<sup>2</sup>**

<sup>1</sup>Utah State University, United States of America; <sup>2</sup>Oxford University Centre for Business Taxation

This paper studies the optimisation frictions that affect the cost of profit shifting for multinational companies. Using confidential UK corporate tax returns data for the years 2000 – 2015, we analyse the effects of foreign tax rate cuts on the extensive and intensive margins of profit reporting in the UK. We show that profits of multinational firms operating in the UK do not react to tax rate changes in their home countries at the intensive margin. Instead, our reduced form evidence shows large extensive margin responses, providing evidence for the presence of fixed costs related to profit shifting. We build a structural model which accounts for those fixed costs and we estimate the extent of shifting frictions alongside the intensive and extensive margin elasticities of taxable profit.

 [Bilicka-Optimisation Frictions and the Fixed Cost of Profit Shifting-220.pdf](#)

11:30am - 1:00pm

## **B02: Environmental Economics II**

11:30am - 11:52am

### **Industrial Agglomeration Externalities, Local Governments' Competition and Environmental Pollution: Evidence from Chinese prefecture-level cities**

**Yuan Hong<sup>3</sup>, Xin Lyu<sup>1,2</sup>, Yu Chen<sup>3</sup>, Wei Li<sup>3</sup>**

<sup>1</sup>Queen Mary University of London, United Kingdom; <sup>2</sup>Shanghai University of Finance and Economics, China;

<sup>3</sup>Hunan University, China

This paper incorporates the local government competition into the classical agglomeration economy framework and studies their interaction effects on the environment pollution in China. Using prefecture level panel data and spatial econometric methods, our baseline empirical results show that the interaction between industrial agglomeration and local governments' competition can significantly aggravate the environmental pollution. Further analysis on mechanism indicates that the overcrowding effect as reflected by the interplay between specialized agglomeration and local governments' tax competition and the centralized emission effect reflected by the interplay between diversified agglomeration and local governments' investment both exert negative externalities on the environmental pollution. Besides, the negative externalities are significantly magnified by the spillover effects.

 [Hong-Industrial Agglomeration Externalities, Local Governments Competition and Environmental Pollution: Evide.pdf](#)

11:52am - 12:15pm

### **Dependence on Freely Collected Food and Fuel in Rural India: An Empirical Analysis**

**Kangkan Devchoudhury<sup>1</sup>, Sujoy Chakravarty<sup>2</sup>**

<sup>1</sup>University of Duisburg Essen, Germany; <sup>2</sup>JNU, New Delhi

We estimate the level of dependence on freely collected common pool resources (CPRs) for food and fuel among households in rural India using three NSS rounds spanning a period of 8 years and find that this is on average between 6 and 9 percent of the food and fuel budget for the poorest consumption classes. This would be the first pan India study of dependence on CPR's. The average dependence on free collection reduces over the consumption classes with the poorest being the most dependent. We also find that marginal farmers, poor women-headed and tribal households are the ones that are the most dependent on free collection while households with more educated adults and regular income display least dependence. We also find that districts with the highest collection of firewood have seen greater forest degradation as compared to the national average from 2011 to 2013.

 [Devchoudhury-Dependence on Freely Collected Food and Fuel in Rural India-203.pdf](#)

12:15pm - 12:37pm

### **Banned For Bad Grades: Effects Of EU Minimum Energy Performance Standards In The White Goods Industry**

**Anne Maria Kesselring<sup>1</sup>, Thiess Büttner<sup>1,2</sup>**

<sup>1</sup>Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany; <sup>2</sup>CESifo FAU

Minimum Energy Performance Standards (MEPS) are frequently used to set energy-efficiency requirements for groups of products with similar attributes.

We use a stylized theoretical model to derive conditions under which such regulation induces consumers to alter their choice of product attributes other than energy efficiency.

Based on a unique dataset on unit sales of household appliances at product level, we explore the effects of EU regulation that imposed a ban from the common market in 2014 of household appliances that are deemed insufficient in terms of energy performance. While we document that this policy has induced strategic producer responses, our focus is on the consumer response. We show that this ban has been effective in inducing households to buy appliances with lower energy consumption. However, we find that households also adjusted to the regulation by opting for larger appliances, which compromises the effectiveness of the policy.

 [Kesselring-Banned For Bad Grades-392.pdf](#)

12:37pm - 1:00pm

### **Coalition Formation with Border Carbon Adjustment**

**Mark Schopf**

University of Hagen, Germany

The present paper analyzes the impact of a climate coalition's border carbon adjustment on emissions from commodity production, welfare and the coalition size. The coalition uses border carbon adjustment to reduce carbon leakage and to improve its terms of trade. With symmetric countries, the optimal import tax is positive but smaller than the coalition's marginal climate damage.

With a linear-quadratic specification, the coalition exports the commodity. Total emissions decrease with the coalition

size, and total welfare increases [decreases] with the coalition size if the coalition is large [small]. Then, the reduced climate costs outweigh [are outweighed by] the increased trade distortions. The unique stable coalition consists of three or more countries, including the grand coalition, and raises the welfare of each country.

If no [every] country implements border carbon adjustment, the stable coalition consists of two [three] or less countries, and the welfare of each country is reduced.

 [Schopf-Coalition Formation with Border Carbon Adjustment-230.pdf](#)

11:30am - 1:00pm

### B03: Political Economy II

11:30am - 11:52am

#### Do Public Account Financial Statements Matter? Evidence from Japanese Municipalities

[Shun-ichiro Bessho](#)<sup>1</sup>, [Haruaki Hirota](#)<sup>2</sup>

<sup>1</sup>The University of Tokyo, Japan; <sup>2</sup>Musashi University

Many governments are introducing business-like accounting systems. This paper examines the fiscal effects of compiling business-like financial statements on the expenditures of local governments, exploiting a quasi-experimental environment in Japan. Using the variation in deadlines for compiling new statements given by the central government, we found that business-like financial statements might trigger the local government to reconstruct their expenditures. The capital expenditures and transfers to special accounts increased, while the current expenses, such as the personnel and social assistance expenses, decreased. This may reflect that the new statements recorded the current situation of assets and future expenditures as well.

 [Bessho-Do Public Account Financial Statements Matter Evidence-226.pdf](#)

11:52am - 12:15pm

#### Winter Is Coming: Early-life Experiences and Politicians' Decisions

[Shiq Guo](#)<sup>1</sup>, [Nan Gao](#)<sup>2</sup>, [Pinghan Liang](#)<sup>3</sup>

<sup>1</sup>The Graduate Institute, Geneva; <sup>2</sup>Zhongnan University of Economics and Law; <sup>3</sup>Sun Yat-sen University

This paper focuses on the role of local politicians' early-life experiences in their policy decisions while in office. We take China's Great Famine (1959–61) as a natural experiment and examine its impact on the fiscal decisions of County Party Secretaries (CPS) who experienced this famine in their early childhood. We construct a data set that matches the biographical information of 2,831 CPS with fiscal data of 1,715 counties during 1993–2007. The results indicate that if CPS experienced a 10% more severe famine during early childhood, other things being equal, they will increase fiscal expenditure on agriculture by 6.8% and social security by 10.6%. This famine experience also decreases agricultural tax by 38.8%. As a result, it leads to more grain production and agricultural employment. We further show that famine experience takes effect by forming the policy preference for agricultural development, rather than beliefs about future famine.

 [Guo-Winter Is Coming-659.pdf](#)

12:15pm - 12:37pm

#### Capital Markets Reactions to Women Political Leadership: Evidence from U.S. Cities

[Thomas Krause](#)<sup>1</sup>, [Iftekhar Hasan](#)<sup>2</sup>, [Yaxuan Qi](#)<sup>3</sup>

<sup>1</sup>Halle Institute for Economic Research, Germany; <sup>2</sup>Fordham University; <sup>3</sup>City University of Hong Kong

This paper analyzes the effect of electing women political leaders on financing cost of local government debt. Using a regression discontinuity design to address endogeneity of female leadership, we examine 654 mayoral elections involving female and male candidates in 381 U.S. cities between 1990-2018. We find that municipal bond yield spreads of cities electing women mayors are around 33 basis point lower than that of cities electing male mayors. This gender effect is more pronounced in cities with higher risk of financial distress. We also find that cities electing women mayors issued fewer debt and had better fiscal status than cities electing male mayors after elections.

 [Krause-Capital Markets Reactions to Women Political Leadership-458.pdf](#)

12:37pm - 1:00pm

#### Measuring Closeness in Proportional Representation Systems

[Simon Luechinger](#)<sup>1</sup>, [Mark Schelker](#)<sup>2</sup>, [Lukas Schmid](#)<sup>1</sup>

<sup>1</sup>University of Lucerne, Switzerland; <sup>2</sup>University of Fribourg, Switzerland

We provide closed-form solutions for a measure of closeness of elections in proportional representation systems. This measure captures the vote shortfall for non-elected candidates and the vote surplus for elected candidates. It takes into account that (i) party votes are not informative about which party is next in line to win or lose a seat, (ii) about the vote shortfall or vote surplus to this marginal seat, and (iii) that candidates can get elected either by winning additional seats for their party or by overtaking copartisan candidates. We provide solutions for both existing families of seat allocation systems used in proportional representation systems. This measure of closeness is useful as an assignment variable in regression discontinuity designs and as a measure of electoral competitiveness. As an illustration, we use it to estimate the incumbency advantage in the Swiss National Council for the period of 1931-2015.

 [Luechinger-Measuring Closeness in Proportional Representation Systems-401.pdf](#)

11:30am - 1:00pm

### B04: Health and Inequality

11:30am - 11:52am

#### Human Capital Accumulation, Income Protection Insurance And Poverty Reduction In Poor Developing Countries

[Weiguang Liu](#)

Nagoya University, Japan

Insurance is very important for poor developing countries. In an overlapping generation framework without saving, we analyzed the effect of a special form of health insurance: income protection insurance (IPI). We clarified how IPI coverage influences human capital accumulation through education investment under certain economic conditions. We have three main findings: (i) Under the assumption that an economy has the potential to escape from the poverty trap, we find that if individuals can choose IPI coverage freely, IPI will not help the economy escape from poverty. (ii) If we can lower the coverage to an optimal level, IPI will actually help the economy escape from poverty. (iii) The coverage preferred by individuals will increase with unhealthy probability, decrease with education efficiency and independent of the discount rate; the optimal coverage proportion will increase with the discount rate and decrease with education efficiency.

 [Liu-Human Capital Accumulation, Income Protection Insurance And Poverty Reduction-341.pdf](#)

11:52am - 12:15pm

#### Mortality Shocks Into Household Consumption - The Case of Mexico

[Marek Šedivý](#)

Charles University, Prague, Czech Republic

Death of a household member is one of the most significant shocks a household can face. It affects household consumption through the change in available resources as well as through the change in its composition. Consequently, it is difficult to identify the effect of within-household mortality on household per capita consumption. In this article, we provide novel evidence based on the Mexican Family Life Survey database. We provide multiple

contributions to the available literature. First, we assess to what extent the shock into household per capita consumption depends on the characteristics of the deceased. Second, we provide evidence on the persistence of the shock. Third, we consider how does the ability of households to smooth consumption depends on their characteristics. We find that Mexican households are capable of perfectly smoothing shocks into consumption caused by within-household mortality.

 [Šedivý-Mortality Shocks Into Household Consumption-386.pdf](#)

**12:15pm - 12:37pm**

**Cash Incentives To Mothers Or To Community Health Workers - What Contributes Better To The Health Of The Mother And The Newborn? Evidence From India**

**Susmita Baulia**

University of Turku, Finland

This paper investigates the role of demand-side incentives to mothers and supply-side incentives to community health workers (ASHAs) in improving maternal and child healthcare through a public healthcare reform in India. The programme entitled socio-economically backward mothers with cash assistance for giving birth at public health institutions, and simultaneously employed ASHAs as an immediate link between eligible mothers and the public health delivery system. Using variations across eligibility of mothers and differential implementation of ASHAs across states in a difference-in-difference framework, I find causal evidence that an eligible mother receiving both cash benefits and ASHA's counselling experienced 7.1 percentage points increase in institutional birth rate than an ineligible mother. In contrast, the corresponding increase for a mother with only cash benefits was 2.9 percentage points. Similar impact is found in early breastfeeding practices and antenatal check-ups of mothers and BCG vaccination of newborns.

 [Baulia-Cash Incentives To Mothers Or To Community Health Workers-343.pdf](#)

**12:37pm - 1:00pm**

**Birth Collapse and Long-Acting Reversible Contraceptives Policies**

**Rodrigo Ceni, Cecilia Parada, Ivone Perazzo, Eliana Sena**

Universidad de la Republica, Uruguay

We estimate the quantitative impact of a long-acting reversible contraceptives (LARCS) policy in the collapse of the Total Fertility Rate (TFR) in Uruguay. We exploit, first, the policy's expansion schedule of sub-dermal implants in public hospitals across the country, through an event study to capture causal effects, and second, a detailed birth administrative record for the last 20 years. We document an average reduction of 3% on the birth rate in the public hospitals across the two years after the policy. These effects were concentrated among teens with a decrease of 5.5% and, and it affects mainly the first birth. In the context of a reduction of 20% in birth in three years, the use of implants can explain one-third of the reduction in birth in public hospitals.

 [Ceni-Birth Collapse and Long-Acting Reversible Contraceptives Policies-532.pdf](#)

**11:30am - 1:00pm**

**B05: Local Public Finance III**

**11:30am - 11:52am**

**Does Inter-municipal Cooperation Help Improve Local Economic Performance? – Evidence From Poland**

**Monika Banaszewska<sup>1</sup>, Ivo Bischoff<sup>2</sup>, Aneta Kaczynska<sup>1</sup>, Eva Wolfschütz<sup>2</sup>**

<sup>1</sup>Poznań University of Economics and Business; <sup>2</sup>University of Kassel, Germany

This paper aims at testing whether inter-municipal cooperation (IMC) in policies to promote local business development has a positive impact on local economic performance. We analyze panel data set covering 1,849 Polish municipalities between 2007 and 2014. We use the unemployment rate and the rate of population growth as a proxy for local economic performance. To control for selection of treatment and the role of time-varying covariates, we apply weighted least squares based on inverse-probability of treatment weights as well as two-way fixed effects models with municipal-specific trends and analogous weights. Our results show that IMC reduces local unemployment rates while it does not affect population growth. The effect increases in the size of funds spent through the jointly administered budget of the union but does not carry over to the municipalities' own expenditures on local business development.

 [Banaszewska-Does Inter-municipal Cooperation Help Improve Local Economic Performance – Evidence-351.pdf](#)

**11:52am - 12:15pm**

**Vertical Fiscal Imbalances and Local Government Efficiency: Evidence From a Natural Experiment In Norway**

**Lars-Erik Borge, Luka Marcinko**

Norwegian University of Science and Technology (NTNU), Norway

The purpose of this paper is to analyze the impact of vertical fiscal imbalances (VFI) on efficiency in Norwegian local governments. It has become a popular claim that grant dependence is harmful for the performance of local governments because of less autonomy and lower accountability. We take advantage of a natural experiment where the macro tax share (inversely related to VFI) first was increased to 50 percent of revenues, and then reduced back to 40 percent. Our identification strategy utilizes that changes in the macro tax share affected individual local governments differently. The efficiency measure is global and captures most local public services. There is robust evidence that a higher tax share (lower VFI) contributes to higher efficiency and that the effect is causal. However, the quantitative effect is sensitive to choice of estimation method.

 [Borge-Vertical Fiscal Imbalances and Local Government Efficiency-586.pdf](#)

**12:15pm - 12:37pm**

**Accrual Accounting and the Local Government Budget**

**Christian Raffer**

Freie Universität Berlin, Germany

Transition from cash to accrual accounting is said to change a government's perception of its budget quite fundamentally. Although an exorbitant number of governments has reformed the mode of accounting at high costs in past years, reliable empirical evidence of consequences on their financial situation and decision making is still scarce. In this paper, budget variables are analyzed which are hypothesized to react to the reform: investment expenditure and revenue from asset sales. Microdata from 1100 local governments in the German state of Baden-Württemberg over the period 2005-2016 is exploited with different matching techniques combined with the conditional DiD estimator. Results imply a robust effect on municipal investment behaviour and indicate an impact on sales revenue. This corroborates latest empirical results. For the first time a common understanding of budgetary effects of the accrual accounting reform based on econometric analyses seems to emerge.

 [Raffer-Accrual Accounting and the Local Government Budget-507.pdf](#)

**12:37pm - 1:00pm**

**Health Expenditure In Italy: A Comprehensive Intergovernmental Model**

**Giacomo Pignataro<sup>1,2</sup>, Fabio Pammolli<sup>1,3</sup>, Francesco Porcellì<sup>4</sup>, Francesco Vidolfi<sup>5</sup>, Guido Borà<sup>6</sup>**

<sup>1</sup>Politecnico di Milano, Italy; <sup>2</sup>University of Catania, Italy; <sup>3</sup>CADS Human Technopole, Italy; <sup>4</sup>CAGE, Centre for Competitive Advantage in the Global Economy, Warwick, UK; <sup>5</sup>University of Roma Tre, Italy; <sup>6</sup>University of Siena and CERM Foundation, Italy

The paper provides an analysis of the determinants of health spending differentials among the Italian Regions for the

years 1998-2017. An original standardised spending framework is proposed that takes into account the appropriateness of the services provided and price/technical efficiency, as well as the main socio-economic demand variables. Italian economic duality in

terms of differences between historical and standard expenditure needs is reflected in regional health systems. Results suggest that spending reduction by the Regions for budgetary needs has mainly been achieved through the quantity of health services supplied rather than by reducing inefficiency.

 [Pignataro-Health Expenditure in Italy-361.pdf](#)

11:30am - 1:00pm

## B06: Optimal Tax-Transfer Policy

11:30am - 11:52am

### Old Age or Dependence. Which Social Insurance?

**Yukihiko Nishimura**<sup>1,2</sup>, **Pierre Pestieau**<sup>3,4</sup>

<sup>1</sup>Osaka University, Japan; <sup>2</sup>CESifo, Germany; <sup>3</sup>CREPP, Université de Liège, Belgium; <sup>4</sup>CORE, Belgium

We consider a society where individuals differ according to their productivity and their risk of mortality and dependency. We show that according to the most reasonable estimates of correlations among these three characteristics, if one had to choose between a public pension system and a long-term care social insurance, the latter should be chosen by a utilitarian social planner. With a Rawlsian planner, the balance between the two schemes does depend on the comparison between the probabilities of the worst-off individual and the probabilities of the rest of society.

 [Nishimura-Old Age or Dependence Which Social Insurance-357.pdf](#)

11:52am - 12:15pm

### Redistributive Taxation, Unemployment Insurance, and Make-work-pay

**Antoine Ferey**

CREST, Ecole Polytechnique, France

This paper studies the interactions between redistribution and social insurance in a general framework that nests two cornerstones of public economics: the Mirrlees-Saez optimal income taxation model and the Baily-Chetty optimal unemployment insurance model. In a mechanism design approach, I consider three different mechanisms and characterize optimal second-best allocations. Focusing on the most realistic mechanism, I show that the optimal second-best allocation can be implemented with three commonly used policy instruments. (1) A redistributive tax and transfer schedule blind to employment status and the origin of income, (2) an earnings-specific and actuarially fair unemployment insurance with eligibility criteria, and (3) an earnings subsidy conditional on being employed akin to an EITC or similar make-work-pay transfer programs. In a perturbation approach, I provide sufficient statistics formulas for the optimal schedules of these instruments that transparently highlight the interactions between redistribution and social insurance.

 [Ferey-Redistributive Taxation, Unemployment Insurance, and Make-work-pay-591.pdf](#)

12:15pm - 12:37pm

### Earnings Inequality, Population Aging And Social Security

**Pavel Brendler**

University of Bonn, Germany

Despite rising earnings inequality, the progressivity of the public pension system has remained unchanged in the U.S. since 1977. I ask: Why? I construct a heterogeneous agent model with uninsurable earnings shocks. The government chooses the pension system progressivity by maximizing the weighted welfare of all generations alive. I find that a shift in Pareto weights towards low ability households can explain why the system's progressivity has remained constant. Rising college premium and increased idiosyncratic labor productivity risk have opposing effects on the Pareto weights, with the latter effect dominating quantitatively. The empirical evidence on voter turnout rates by education supports the shift in Pareto weights towards low ability agents in the model.

 [Brendler-Earnings Inequality, Population Aging And Social Security-379.pdf](#)

12:37pm - 1:00pm

### Alternatives to Paying Child Benefit to the Rich: Means Testing or Higher Tax?

**Patricia Apps**<sup>1</sup>, **Ray Rees**<sup>2</sup>, **Thor Olav Thoresen**<sup>3,4</sup>, **Trine Engh Vatte**<sup>3</sup>

<sup>1</sup>The University of Sydney; <sup>2</sup>Ludwig Maximilian University; <sup>3</sup>Statistics Norway; <sup>4</sup>The University of Oslo

Transferring public benefits to people in no need of them appears to be a waste of public money. Thus, there seems to be support for a move away from universal child benefits and towards means testing. This study presents a critique of this overly-simplistic view and proposes a very simple alternative: instead of withdrawing the transfer as a function of income, which raises marginal tax rates for low and middle income parents, with accompanying detrimental effects on labour supply, redistribution can be achieved by higher income taxation of the rich. The role of the child benefit is discussed analytically in a piecewise linear schedule. Moreover, the argument is illustrated with reference to the design of the child benefit scheme for Norway, demonstrating the labour supply/redistribution trade-off by results from simulation models.

 [Apps-Alternatives to Paying Child Benefit to the Rich-229.pdf](#)

11:30am - 1:00pm

## B07: VAT I

11:30am - 11:52am

### VAT and the Taxation of Rents

**Motohiro Sato**<sup>1</sup>, **Robin Boadway**<sup>2</sup>, **Jean-Francois Tremblay**<sup>3</sup>

<sup>1</sup>Hitotsubashi University, Japan; <sup>2</sup>Queen's University; <sup>3</sup>University of Ottawa

Many countries are moving toward a cash-flow corporate tax to mitigate some of the distortions that conventional corporate taxes cause. At the same time, cash-flow corporate taxation applied on an origin basis is prone to international profit-shifting, which can lead to a competitive reduction in tax rates. To preclude this, some tax specialists and policymakers have called for a destination-based cash-flow tax. The VAT includes in its base rents as well as labour income, and there is much less reluctance to use the destination principle for the VAT. We study the role of a destination-based VAT as a supplement to origin-based cash-flow corporate taxation.

 [Sato-VAT and the Taxation of Rents-176.pdf](#)

11:52am - 12:15pm

### Gross Receipt Tax to Value-added Tax in China: A Puzzle of Rising Tax Burden

**Binzhen Wu**, **Yan Li**

School of Economics and Management, China, People's Republic of

The replacement of gross receipt tax (GRT) with value added tax (VAT) is an important phenomenon in the past half century. China started this reform in 2012 and the reform was the most important tax reform in China in the last two decades. One major purpose of the reform is to reduce firms' tax burden and equalize tax burden across firms. We find that, as expected, the change in tax burden varied substantially across industries and firms, and effective tax rate became more equalized after the reform. However, the average effective tax burden surprisingly increased for service industry after the reform. We provide evidence for two major explanations for the puzzle. First, the enforcement of VAT is better than that of GRT, which led to the increase in tax burden. Second, local government

increased enforcement to make up the loss of their tax revenue due to the reform.

 [Wu-Gross Receipt Tax to Value-added Tax in China-287.pdf](#)

**12:15pm - 12:37pm**

### **Understanding Responses To VAT Regulation And Enforcement Mechanism: Evidence From Thailand**

**Athiphat Muthitacharoen<sup>1</sup>, Wonma Wanichthaworn<sup>2</sup>, Trongwut Burong<sup>2</sup>**

<sup>1</sup>Chulalongkorn University, Thailand; <sup>2</sup>Revenue Department, Thailand

How do firms respond to VAT regulations and increased information available to tax authority? This paper examines the effects of VAT policy on firm behavior in an environment with large informality. We use a de-identified panel of VAT and corporate income tax returns that comprises the universe of Thai firms. Our identification strategy is based on a bunching framework and a difference-in-difference approach before and after Thailand's introduction of a policy that strengthened its VAT enforcement system in 2015. We first document a clear bunching response below the VAT registration threshold. We then show that the size of non-VAT businesses in the local economy is strongly related to the bunching pattern and has a substantially negative impact on the voluntary registration decision. Finally, we illustrate that increasing the information available to tax authority has a large and significant impact on compliance of both VAT and corporate income tax.

 [Muthitacharoen-Understanding Responses To VAT Regulation And Enforcement Mechanism-485.pdf](#)

**12:37pm - 1:00pm**

### **Modernizing the European VAT**

**Sijbren Cnossen**

CPB Netherlands Bureau for Public Policy Analysis, Netherlands, The

The harmonized European value-added tax (VAT) is anything but a modern consumption tax that taxes all goods and services at a uniform rate. As exemplified by an analysis of the Dutch version, some 60% of the base is exempted, that is, not taxed on output but on inputs. This has serious consequences.

- The VAT exemptions distort input choices, stimulate uneconomical self-supply and unnecessarily complicate administration and compliance. The welfare costs of the exemptions can be estimated at one half of one percent of gross domestic product (GDP).
- Research shows that under an equal yield assumption, the elimination of the exemptions and the introduction of a single rate in conjunction with a reduction in the standard rate should foster economic growth.
- The Member States of the European Union (EU) should be allowed to replace their defective VATs with a modern version. This would strengthen competitive conditions.

 [Cnossen-Modernizing the European VAT-349.pdf](#)

**1:15pm - 2:45pm**

## **C01: Corporate Taxation I**

**1:15pm - 1:37pm**

### **Effective Corporate Tax Rates and Firm Size: Evidence from Uganda**

**Silver Namunane**

University of Minnesota, United States of America

The debate on how high corporate tax rates should be has in the past two decades dominated tax policy discussions in developing countries. However, corporate tax rates do not reflect the true burden of a tax since they ignore the effect of allowable deductions which are captured in effective tax rates. The corporate tax rate in Uganda is a flat rate of 30 percent. In theory, every firm regardless of size should pay the same rate. However, the effective tax rates differ from the stated tax rate because of the differences in the ability of firms to minimize their tax liability. Within firm variation is used to estimate the effect of firm size on effective tax rates, the results reveal a negative effect which persists even when being part of large/medium taxpayers' office is used as an instrument for firm size. Finally, there is evidence that supports a non-linear effect.

 [Namunane-Effective Corporate Tax Rates and Firm Size-183.pdf](#)

**1:37pm - 2:00pm**

### **Overclaimed Refunds, Undeclared Sales, and Invoice Mills: Nature and Extent of Noncompliance in a Value-Added Tax**

**Mazhar Waseem**

University of Manchester, United Kingdom

I leverage a Pakistani tax reform that cuts the tax rate on the supply chains of five major industries of the country from 15% to 0% to estimate the extent of VAT noncompliance in the country. I find that at the baseline the treated industries overclaimed refunds by nearly 22% and underreported domestic B2C sales by nearly 43.5%. Together, this caused a total VAT revenue loss of PKR 38 billion, which translates into 11.5% (77% of the statutory rate of 15%) of the true taxable sales of these industries. I also explore the role of invoice mills in facilitating this noncompliance. I find that the amount of excess refund claimed by exporters nearly equals the amount of input tax involved on invoices issued to them by invoice mills, suggesting that almost all of revenue loss on export refunds takes place through the medium of invoice mills.

 [Waseem-Overclaimed Refunds, Undeclared Sales, and Invoice Mills-172.pdf](#)

**2:00pm - 2:22pm**

### **De-risking of Green Investments through a Green Bond Market: Empirics and a Dynamic Model**

**Joao Paulo Braga<sup>1</sup>, Willi Semmler<sup>2</sup>, Dieter Grass<sup>3</sup>**

<sup>1</sup>The New School for Social Research, United States of America; <sup>2</sup>The New School for Social Research, University of Bielefeld, and IIASA; <sup>3</sup>Vienna University of Technology and IIASA

Although the Paris Agreement requires an increase in green investments, capital markets are constrained. Literature shows governments could de-risk such investments. We estimate beta prices and yields and find public involvement in the green bonds market, especially for long maturities. Governments and Multilateral organizations de-risk investments by supporting the issuance of green bonds in contrast to private bonds that show higher yields, volatility and beta prices. Since it also means lower capital costs, we use empirical results and run a dynamic model with two types of firms: innovators (renewable energy) and incumbents (fossil fuel). The model shows that de-risked interest rates help to phase-in renewable energy firms in the market and avoid a debt increase. However, when the entrants carry negative pay-offs, the debt might increase and lead to a shake-out in the market. Subsidies and carbon taxation avoid that behavior. We also explore a stochastic version of the model.

 [Braga-De-risking of Green Investments through a Green Bond Market-643.pdf](#)

**2:22pm - 2:45pm**

### **CEO Risk Exposure Distorts Investment Decisions**

**Jeff Coles<sup>1</sup>, Jason Sandvik<sup>2</sup>, Nathan Seeger<sup>1</sup>**

<sup>1</sup>University of Utah, United States of America; <sup>2</sup>Tulane University

Firm investment decisions are distorted by risk-driven agency problems, shareholder taxes, and their interaction. We use variation in CEO compensation incentives (CEO delta and vega), differences in firm payout strategies, and variation in personal tax rates arising from the 2003 tax reform to overcome obstacles in studying the causal relation between CEO risk exposure and managerial decision-making. We find that M&A performance is 16%–28% higher for CEOs that are relatively insulated from risk compared to those who are exposed to more risk. Relative to

	<p>benchmark firms, the total market value lost through risk considerations, arising from CEO compensation and personal taxes, was at least \$600 billion and perhaps as large as \$1.473 trillion from 1993 to 2002.</p> <p><a href="#">Coles-CEO Risk Exposure Distorts Investment Decisions-574.pdf</a></p>
<p>1:15pm - 2:45pm</p>	<p><b>C02: International Taxation and Trade</b></p> <p>1:15pm - 1:37pm  <b>Formation Of Climate Coalitions And Preferential Free Trade - The Case For Participation Linkage</b>  <b>Thomas Kuhn, Radomir Pestow, Anja Zenker</b>  University of Chemnitz, Germany</p> <p>We deal with the endogenous formation of climate coalitions linked to a preferential free trade arrangement. In a multi-stage strategic trade model coalition and fringe countries can dispose of a policy regime incorporating a discriminatory import-tariff on dirty goods as well as emission permits. A fairly novel modelling of the preferential free trade area is at the core of our approach. Permits are imposed on producers and traded on a coalitional permit market. Further, countries taking a free-ride on the environment may equally build a free trade area. As a remarkable finding, we find strong support for the claim that preferential free trade can create fairly large and effective climate coalitions, though fringe countries were given the option of retaliated trade cooperation. This result is mainly driven by a favorable shift in the coalition's terms of trade. As a policy implication, negotiations on international climate treaties and free trade arrangements should be interlinked.</p> <p><a href="#">Kuhn-Formation Of Climate Coalitions And Preferential Free Trade-683.pdf</a></p> <hr/> <p>1:37pm - 2:00pm  <b>Corporate Taxes and Multi-Product Exporters: Theory and Evidence from Trade Dynamics</b>  <b>Lisandra Flach<sup>1</sup>, Michael Irlacher<sup>2</sup>, Florian Unger<sup>3</sup></b>  <sup>1</sup>LMU Munich, Germany; <sup>2</sup>JKU Linz; <sup>3</sup>Göttingen University</p> <p>This paper analyzes how exporters are affected by corporate tax reforms in destination markets. We introduce tax policy in a trade model of multi-product firms and show that producers face tougher competition in export markets with lower corporate tax rates. This competitive effect induces firms to reduce the number of exported products and to skew their export sales towards the better performing varieties. We estimate the effects of corporate taxes on trade dynamics by exploiting policy reforms in 45 destination countries of exports during the period 2005-2012. Our results provide strong support for competitive effects of corporate taxation.</p> <p><a href="#">Flach-Corporate Taxes and Multi-Product Exporters-608.pdf</a></p> <hr/> <p>2:00pm - 2:22pm  <b>How does Trade Policy Change over Time? Evidence from 5.7 Billion Tariffs</b>  <b>Feodora Teti</b>  ifo Institute &amp; LMU, Germany</p> <p>This paper presents a new global tariff database covering tariffs at the six-digit product level for 197 importing countries and their trading partners for 30 years, namely 1988 to 2017. This newly compiled data set will then be used to give much more detailed answers to old questions: What are the persistent patterns in tariffs across countries and sectors? How much does the tariff landscape change over the past three decades? The unique coverage in terms of number of countries and years allows to expand the analysis substantially and to pay especial attention to changes in trade policy. The analysis reveals large heterogeneity across countries, sectors and time.</p> <p><a href="#">Teti-How does Trade Policy Change over Time Evidence from 57 Billion Tariffs-543.pdf</a></p> <hr/> <p>2:22pm - 2:45pm  <b>Congestion, Wage Rigidities And The Provision Of Public Intermediate Goods</b>  <b>Johannes Pauser</b>  State Ministry of Saarland for Economic Affairs, Labor, Energy and Traffic, Germany</p> <p>This paper examines efficiency in the provision and utilization of a congestible public input in a symmetric tax competition framework with wage rigidities. Despite the fact that also lump-sum taxation is available for regional governments, second-best efficiency emerges only as a special case in the non-cooperative equilibrium. In the special case with Cobb-Douglas production, the congestion technology can be shown to be crucial for the analysis of efficiency in the decentralized equilibrium. Assuming decreasing marginal congestion, efficiency in the non-cooperative equilibrium is determined alone by the production and congestion elasticities. In contrast, factor prices such as the level of the wage rigidity and corresponding employment levels are, in addition, important to determine whether both provision and utilization levels of the public input are efficient in case of increasing marginal congestion.</p> <p><a href="#">Pauser-Congestion, Wage Rigidities And The Provision Of Public Intermediate Goods-565.pdf</a></p>
<p>1:15pm - 2:45pm</p>	<p><b>C03: Political Economy III</b></p> <p>1:15pm - 1:37pm  <b>Sabotage in Asymmetric Contests: Theory and Evidence</b>  <b>Magnus Strobel, Thomas Daske, Julian Hackinger</b>  Technical University of Munich, Germany</p> <p>We study how asymmetry in opponents' productive and destructive capabilities affects their sabotage efforts in a contest. In contrast to the existing literature, we find empirical evidence that sabotage is negatively linked to the asymmetry of the fixture. We substantiate this result by proposing a conventional contest-theoretical model that rationalizes our empirical findings. Due to its decisive role in determining the severity of sabotage in contests, we conjecture that asymmetry also affects the effectiveness of uniform fair-play enforcement policies. To shed light on this matter, we study the effects of a quasi-natural experiment, namely the introduction of the Video Assistant Referee, a detection mechanism intended to reduce foul play. Our difference-in-differences estimation results show a post-introduction increase of in-match injuries - our novel measure for sabotage - in sufficiently asymmetric fixtures. This asymmetry-dependence shows that the effectiveness of uniform fair-play enforcement policies is contingent on the contestants' relative capabilities.</p> <p><a href="#">Strobel-Sabotage in Asymmetric Contests-636.pdf</a></p> <hr/> <p>1:37pm - 2:00pm  <b>Climate Policy and Inequality in Two-Dimensional Political Competition</b>  <b>Waldemar Marz</b>  ifo Institute, Germany</p> <p>This paper examines how income inequality can affect the polarization of heterogeneous party platforms on climate policy (here: carbon tax). The implied consequences for the uncertainty of climate policy can be relevant for risk-averse investors in "green" technologies. Households are heterogeneous with respect to income and preferences for environmentalism and preferred redistribution. A static game-theoretic model of two-dimensional political competition on a carbon tax (with distributional implications) and an income tax is combined with a model of a carbon-intensive economy. For a higher inequality of pre-tax income and/or a higher salience of the issue of redistribution, polarization of the parties' carbon tax proposals in the equilibrium can increase - even if the income tax is used to counteract the increase in income inequality. This result does not depend on the progressivity of the carbon-tax revenue recycling</p>

	<p>mechanism.</p> <p> <a href="#">Marz-Climate Policy and Inequality in Two-Dimensional Political Competition-463.pdf</a></p> <hr/> <p><b>2:00pm - 2:22pm</b>  <b>On the Possibility of Democratic Redistribution in a Two Class Society</b>  <b>Christos Mavridis, Marco Serena</b>  Max Planck Institute for Tax Law and Public Finance, Germany</p> <p>We investigate the possibility of democratic redistribution of wealth in a society with some rich and some poor citizens called to vote over wealth redistribution under majoritarian rule. We adopt a standard pivotal-voter model with costly voting and more poor than rich citizens. Multiplicity of equilibria, as standard in pivotal-voter models, arises. However, we impose an intuitive refinement, namely that voting probabilities are continuous in the cost of voting, and find that such refinement pins down a unique equilibrium, which characterizes a key inequality threshold; if the number of poor citizens is lower than the square of the number of the rich citizens, then the poor citizens may vote in equilibrium and redistribution has a chance of winning, otherwise the poor citizens abstain with certainty and thus enter in a "poverty trap"—namely, redistribution is doomed to lose.</p> <p> <a href="#">Mavridis-On the Possibility of Democratic Redistribution in a Two Class Society-162.pdf</a></p> <hr/> <p><b>1:15pm - 2:45pm</b>  <b>C04: Inequality I</b></p> <p><b>1:15pm - 1:37pm</b>  <b>Economic Growth, Fiscal Inequality and Fiscal Decentralization: Evidence from China</b>  <b>Jiakai Zhang</b>  Graduate Center-CUNY, United States of America</p> <p>This paper investigates the impact of inequality in the geographic distribution of fiscal resources on regional economic growth under fiscal decentralization policy in the context of China's experience, using panel data for 28 provinces over the period 1987–2010. In the recent past, the structure of decentralized government in China has undergone two significant fiscal reforms: "fiscal contract responsibility system" (FRS) in 1985-1993, and "Tax Sharing System" (TSS) in 1994. I find that there are different impacts of overall fiscal inequality on economic growth pre- and post-1994. Second, I show that fiscal decentralization could improve regional growth in China. Finally, I examine the impact of extra-budgetary funds on the reduction of the gaps between the economic growth of rich and poor provinces.</p> <p> <a href="#">Zhang-Economic Growth, Fiscal Inequality and Fiscal Decentralization-193.pdf</a></p> <hr/> <p><b>1:37pm - 2:00pm</b>  <b>The Impact of Withdrawal Penalties at Age Notches on Retirement Savings</b>  <b>Ellen Stuart<sup>1</sup>, Victoria Bryant<sup>2</sup></b>  <sup>1</sup>University of Michigan, United States of America; <sup>2</sup>Internal Revenue Service, United States of America</p> <p>Tax-benefited retirement accounts are designed to motivate taxpayers to save for retirement. Account holders face tax penalties for withdrawing too early (before age 59.5) and for failing to take Required Minimum Distributions (RMDs) after age 70.5. Reduced-form exercises suggest that, each year, these penalties cause a minimum of 6.6 million taxpayers change the timing of withdrawals, with \$10.7 billion worth of distributions impacted. We estimate a dynamic life-cycle model and consider three counterfactual policies. Our results suggest that using the tax system to encourage taxpayers to save for retirement increases both taxpayer welfare and tax revenue. We find that increasing the penalty for early withdrawals from 10% to 30% or increasing the age at which RMDs kick in from 70.5 to 72 to be similarly welfare improving for the top income quartile, but that increasing the penalty for early withdrawals is considerably more welfare improving for the lowest income quartile.</p> <p> <a href="#">Stuart-The Impact of Withdrawal Penalties at Age Notches-297.pdf</a></p> <hr/> <p><b>2:00pm - 2:22pm</b>  <b>Government Size, Inequality and Veblen Effect</b>  <b>Hannu Tanninen<sup>1</sup>, Matti Tuomala<sup>2</sup>, Elina Tuominen<sup>2</sup></b>  <sup>1</sup>University of Eastern Finland; <sup>2</sup>Tampere University, Finland</p> <p>Over a hundred years ago, Thorstein Veblen put forward that the desire for social standing shapes individuals' consumption decisions in a crucial manner. We suggest that individuals may be more reluctant to contribute to the public sector in the presence of Veblen effect, especially when top-end inequality is high. In this paper we explore whether country-level data support this type of behaviour. We provide empirical examples of the link between the size of government and top income shares in advanced economies from 1965 to 2016. Our results lend support to Veblen's idea, namely we find that high top-end inequality is associated with smaller government size.</p> <p> <a href="#">Tanninen-Government Size, Inequality and Veblen Effect-646.pdf</a></p> <hr/> <p><b>2:22pm - 2:45pm</b>  <b>The Role Of Random Terms In Preference Based Welfare Metrics</b>  <b>Bart Capéau, André Decoster, Liebrecht De Sadeleer, Sebastiaan Maes</b>  KU Leuven Department of Economics, Belgium</p> <p>When analysing the outcomes of a discrete choice model with an individual welfare metric that takes preference heterogeneity into account, the latter is a random variable from the point of view of the econometrician due to the presence of unobserved preference heterogeneity. In this paper, we adapt the class of nested opportunity set metrics introduced by Fleurbaey (2011) to settings where individual choice is determined by a such a discrete choice model. We then show that the distribution of these objects can easily be derived from the conditional choice probabilities, which are nonparametrically estimable from cross-sectional data. In doing so, we impose a mild monotonicity assumption on the utility function, but allow for unrestricted unobserved preference heterogeneity. In addition, we also derive nonparametric results for the joint distribution of welfare and welfare differences and for social welfare.</p> <p> <a href="#">Capéau-The Role Of Random Terms In Preference Based Welfare Metrics-546.pdf</a></p> <hr/> <p><b>1:15pm - 2:45pm</b>  <b>C05: Local Public Finance IV</b></p> <p><b>1:15pm - 1:37pm</b>  <b>Reaction and Interaction: Local Fiscal Adjustment to a Tax and Equalisation Reform in Flanders</b>  <b>Lorenz Fischer<sup>1</sup>, Sander Ramboer<sup>2</sup></b>  <sup>1</sup>Johannes Kepler University Linz; <sup>2</sup>VATT Institute for Economic Research, Finland</p> <p>In the early 2000s, the municipalities of Flanders collectively raised tax rates by 10 to 20% over the course of just three years. Among the main reasons for the tax hikes were federal tax cuts which mechanically shrunk the local tax base. At the same time, a regional reform expanded the municipal fund, increasing general grant revenue for some but not for others. In this paper, we analyse the municipalities' reaction to these heterogeneous and geographically dispersed revenue shocks and try to rationalize the observed changes in local fiscal policy relying on the literature on vertical and horizontal fiscal externalities.</p> <p> <a href="#">Fischer-Reaction and Interaction-629.pdf</a></p> <hr/> <p><b>1:37pm - 2:00pm</b></p>
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**Fiscal Policy Adjustments to Budget Shocks: Evidence from German Municipalities****Désirée I. Christofzik<sup>1</sup>, Benny Schneider<sup>2</sup>**<sup>1</sup>Federal University of Applied Administrative Sciences, Germany; <sup>2</sup>University of Siegen, Germany

We study the fiscal policy reactions of municipalities in the German state of North Rhine-Westphalia to an unanticipated spending shock. The implementation of a horizontal transfer system led to additional contributions for selected municipalities. Using the quasi-random assignment, we examine whether these contributing municipalities adjust their tax setting behavior, respond by adapting expenditures, or incur debt in the short run. We find a sizable increase of net borrowing. This increase is even higher than the expansion of spending. Municipalities additionally refrain from increasing tax rates. The results point to delayed fiscal adjustments. We conclude that the design and the predictability of transfer systems have significant implications on the behavior of municipalities within decentralized systems.

 [Christofzik-Fiscal Policy Adjustments to Budget Shocks-447.pdf](#)
**2:00pm - 2:22pm****The Determinants of the Fiscal Distress of Italian Municipalities: How Much is it Due to Inadequate Resources Compared to Needs?****Francesco Porcelli<sup>3</sup>, Antonella Evangelista<sup>2</sup>, Alberto Zanardi<sup>1</sup>**<sup>1</sup>Ufficio Parlamentare di Bilancio, Italy; <sup>2</sup>SOSE SpA, Italy; <sup>3</sup>SOSE SpA, Italy

The aim of this paper is to empirically analyse the main factors affecting the probability of financial distress in Italian municipalities. On the basis of a cross-section database including all the municipalities which experienced or not financial distress in 2012-2018 we investigate in particular the role of structural deficiency of financial resources in making some municipality more financially vulnerable than others. The estimation results show that municipalities that suffered from a level of total resources lower than what is required to provide public services in their jurisdiction at standard levels as measured by Standard expenditure needs indicators are, ceteris paribus, more prone to run into financial distress.

 [Porcelli-The Determinants of the Fiscal Distress of Italian Municipalities-492.pdf](#)
**2:22pm - 2:45pm****Fiscal Windfall Curse****Simon Berset, Mark Schelker**

University of Fribourg, Switzerland

We study the impact of a one-off exogenous fiscal windfall on local public finances in the canton of Zurich in Switzerland. With the IPO of Glencore on the London Stock Exchange in 2011, its CEO had to pay an extraordinary tax bill of CHF 360 million. About CHF 238 million of that extra revenue entered the municipal resource equalization scheme and rained down on the municipalities of the canton of Zurich. This quasi-experimental setup and our unusually rich dataset allow us to estimate the causal effect of this one-off windfall on all municipal accounting positions. The windfall triggered large, permanent expenditure increases targeting specific groups (mostly public employees) as well as general tax cuts and user charge hikes. The resulting imbalances caused a 7.5-fold increase in gross debt relative to the windfall. This massive overreaction hints at a substantial fiscal windfall curse, even with strong fiscal institutions.

 [Berset-Fiscal Windfall Curse-513.pdf](#)
**1:15pm - 2:45pm****C06: Gender and Family Economics****1:15pm - 1:37pm****Gender Price Discrimination in the Annuity Market: Evidence from Chile****Piera Bello**

Universita' della Svizzera italiana / University College London, United Kingdom

This paper studies gender-based price discrimination in the annuity market. The dataset consists of transaction-level data. It exploits the fact that, in Chile, individuals can access the annuity market through three different channels: an independent financial advisor, a sales agent, or directly. The analysis shows that women who consult sales agents pay higher transaction prices compared to the other two groups of women, while there is no variation in men's prices across the three channels for market access. Additional evidence shows that this is not driven by differences in negotiation skills but rather by differences in initial prices. Firms charge higher initial prices to women who access the market through one of their sales agents. These results are consistent with an explanation that links the lack of competition between firms to discriminatory behaviour against female customers. Gender differences in financial literacy might explain the results.

 [Bello-Gender Price Discrimination in the Annuity Market-429.pdf](#)
**1:37pm - 2:00pm****Does Complexity or Money Matter for Benefit Take-up? Empirical Evidence from a Universal Childcare Benefit****Tomer Blumkin, Kaisa Kotakorpi, Tuomas Kosonen**

Tampere University and VATT Institute for Economic Research, Finland

We analyse to what extent the complexity of benefit rules affects take-up in a setting where the effects of complexity can be separated from other potential causes of non-take-up. The benefit we study is extensively used by individuals from all socioeconomic groups, namely the child homecare allowance in Finland. We use individual-level data on all mothers of young children, together with municipal-level data on the application rules for the benefit. Variation in the rules between municipalities and over time is used to estimate the causal effect of complexity on take-up. We find in a differences-in-differences setting that complexity has a very large effect on take-up. Complex application procedures cause individuals to forego a benefit of approximately 200 € per month, potentially for 2 years.

 [Blumkin-Does Complexity or Money Matter for Benefit Take-up Empirical Evidence-383.pdf](#)
**2:00pm - 2:22pm****Comparing the Quality of Home Care and Formal Child Care with Child Outcomes****Jonathan Gruber<sup>1</sup>, Kristiina Huttunen<sup>2</sup>, Tuomas Kosonen<sup>3</sup>**<sup>1</sup>Massachusetts Institute of Technology; <sup>2</sup>VATT Institute for Economic Research, Helsinki, Finland; <sup>3</sup>Labour Institute for Economic Research, Helsinki, Finland

We study the impacts of policy induced home care or day care decisions by parents on children as well as on longer term outcomes of the parents. We are able to utilize regional and over time exogenous variation in child home care allowance that significantly increases incentives to stay at home and take care of children that are under the age of three in Finland. Our results show that home care allowance decreases maternal employment and negatively affects the early childhood cognitive test results at the age of five, increases likelihood of choosing vocational secondary education and increases youth crimes. The results are more pronounced in municipalities that have higher average child care quality. We additionally utilize a day care fee reform induced lower day care prices that lead to better child outcomes. The results indicate that universal child policies can have substantial impact on the subsequent lives of children.

 [Gruber-Comparing the Quality of Home Care and Formal Child Care with Child Outcomes-589.pdf](#)
**2:22pm - 2:45pm****Do property taxes affect fertility? Quasi-experimental evidence from Portugal**

	<p><b>João Pereira dos Santos, Susana Peralta</b> Nova School of Business and Economics</p> <p>This paper uses quasi-natural variation through a central government legislated reform of local property taxes that occurred in 2008 in Portugal to obtain the causal impact of taxes on household fertility decisions. The reform creates a treated group of municipalities who are forced to decrease the property tax rate, thus generating a positive income effect on the residents. We use individual-level administrative data on all births occurred in Portugal between 2004 and 2011, socio-economic survey data, and combine it with municipal-level fiscal, demographic, and political data on 278 municipalities in mainland Portugal. Through a Difference-in-Differences strategy, we document an increase in fertility caused by lower property taxes. The result is driven by second and higher order births. Additionally, we show that these effects are larger in households in which the mother is either Portuguese, less educated or unemployed.</p> <p> <a href="#">Pereira dos Santos-Do property taxes affect fertility Quasi-experimental evidence-248.pdf</a></p>
1:15pm - 2:45pm	<p><b>C07: VAT II</b></p> <p><b>1:15pm - 1:37pm</b> <b>Trade and Welfare Effects of Export Tax: Theory And Evidence From China's Incomplete VAT Rebates</b> <b>Eric Bond<sup>1</sup>, Yuwan Duan<sup>2</sup>, Ting Ji<sup>2</sup>, Yi Lu<sup>3</sup></b> <sup>1</sup>Vanderbilt University, United States of America; <sup>2</sup>Central University of Finance and Economics; <sup>3</sup>School of Economics and Management, Tsinghua University</p> <p>While China was reducing tariffs as part of the WTO accession process, it was also effectively restricting exports in some sectors by reducing the rebates of the value added tax (VAT) for exporters. We use a multi-sector multi-country Ricardian model to examine the extent to which these de facto export tax changes benefited China and nullified some of the benefits to the rest of the world of China's trade liberalization. We also use our model to solve for China's optimal export taxes and calculate the impact of optimal export taxes on China and the rest of the world. Finally, we interpret the difference between actual export taxes and the optimal export taxes as a measure of China's preferences over industries, and test hypotheses regarding the determinants of these preferences.</p> <p> <a href="#">Bond-Trade and Welfare Effects of Export Tax-322.pdf</a></p> <hr/> <p><b>1:37pm - 2:00pm</b> <b>The Value Added Tax and Growth: Design Matters</b> <b>Atsuyoshi Morozumi<sup>1</sup>, Santiago Acosta-Ormaechea<sup>2</sup></b> <sup>1</sup>University of Nottingham; <sup>2</sup>International Monetary Fund</p> <p>Does the design of a tax matter for growth? Assembling a novel dataset for 30 OECD countries over the 1970-2016 period, this paper examines whether the value added tax (VAT) may have different effects on long-run growth depending on whether it is raised through the standard rate or through C-efficiency (a measure of the departure of the VAT from a perfectly enforced tax levied at a single rate on all consumption). Our key findings are twofold. First, for a given total tax revenue, a rise in the VAT, financed by a fall in income taxes, promotes growth only when the VAT is raised through C-efficiency. Second, for a given VAT revenue, a rise in C-efficiency, offset by a fall in the standard rate, also promotes growth.</p> <p> <a href="#">Morozumi-The Value Added Tax and Growth-302.pdf</a></p> <hr/> <p><b>2:00pm - 2:22pm</b> <b>The Impact of Plastic Money Use on VAT Compliance: Evidence from EU countries</b> <b>Amakoe Delali Alognon<sup>1</sup>, Antonios Marios Koumpias<sup>2</sup>, Jorge Luis Martinez-Vazquez<sup>1</sup></b> <sup>1</sup>Georgia State University, USA; <sup>2</sup>University of Michigan-Dearborn, USA</p> <p>This paper examines the impact of the proliferation in credit and debit card usage on consumption tax compliance using annual national level data for 26 EU member states from 2000 to 2016. We measure consumption tax compliance using estimated Value-Added Tax (VAT) gaps, defined as the difference between the theoretical VAT liability according to the law and actual VAT collections. Using this appropriate measure of VAT gap along with fixed effect panel regression and instrumental variables techniques, we find that plastic money use does not significantly affect the tax compliance gap while cash withdrawals appear to noticeably increase the gap. This paper contributes to the literature on the effect of modern means of payment on tax compliance. Specifically, it uses a more adequate measure of the VAT compliance gap and accounts for potential confounders such as tax policy choices and ex-ante enforcement capacity of tax administrations to curb the gap.</p> <p> <a href="#">Alognon-The Impact of Plastic Money Use on VAT Compliance-557.pdf</a></p> <hr/> <p><b>2:22pm - 2:45pm</b> <b>From Santiago to New York. Regulating a Monopolist that Faces Evaders</b> <b>Martin Besfamille<sup>1</sup>, Nicolás Figueroa<sup>1</sup>, León Guzmán<sup>2</sup></b> <sup>1</sup>Pontificia Universidad Católica de Chile, Chile; <sup>2</sup>New York University</p> <p>This paper features a monopoly that produces a single good but faces heterogeneous consumers that may decide to evade the payment of its price. By exerting a costly effort, the monopoly can increase the detection probability of evaders. To maximize the total surplus, a regulator sets the price to charge and socially costly transfers to ensure that the monopoly breaks-even. In the basic model with unit demands, fixed quality, and observable effort, the price is independent of the marginal cost. In particular, we analyze how the optimal regulatory price-effort scheme evolves when the marginal cost of public funds increases. Next, we extend the basic model to incorporate i) non-unit demands, ii) endogenous quality, and iii) moral hazard. In all extensions, we characterize the optimal price-effort scheme, and we discuss how these results depart from the conventional literature of natural monopoly regulation.</p> <p> <a href="#">Besfamille-From Santiago to New York Regulating a Monopolist that Faces Evaders-452.pdf</a></p>
3:00pm - 4:15pm	<p><b>Plenary II: Keynote II: Karen Palmer (Resources for the Future), "Flexible Electricity Demand and Decarbonization: Policy, Prices and Automation"</b> Session Chair: <b>Mireille Chiroleu-Assouline</b>, University Paris 1 Panthéon-Sorbonne</p>



<sup>1</sup>TU Berlin, Germany; <sup>2</sup>Anahuac University, Mexico

We consider a stochastically growing small open economy. The government borrows in the international financial market, collects tax revenue and provides a public infrastructure good. We compare two bond instruments: conventional bonds and GDP-linked bonds. The introduction of GDP-linked bonds increases the mean GDP growth rate and lowers the optimal debt-to-GDP level. Furthermore, it does not increase the equilibrium interest rate on sovereign bonds.

 [Kalamov-GDP-linked bonds and Economic Growth-621.pdf](#)

9:07am - 9:30am

### Inflation-Linked Bonds, Nominal Bonds, and Countercyclical Monetary Policies

Ed Westerhout

Fiscal Institute Tilburg, Netherlands, The

The majority of public debts is financed with nominal rather than inflation-linked bonds. What seems to make nominal bonds particularly attractive is that they make countercyclical monetary policies more effective. But can this argument alone explain the dominant position of nominal bonds? This paper constructs a model in which countercyclical monetary policies are effective on account of nominal bonds. Still, the paper finds that in two well-specified cases the optimal amount of nominal bonds is zero. This is due to, first, the inflation bias that relates to nominal bonds and, second, the inflation risk premium that distinguishes nominal from inflation-linked bonds. Based on these results, it is difficult to attribute the real-world dominance of nominal bonds to their attractive stabilization properties.

 [Westerhout-Inflation-Linked Bonds, Nominal Bonds, and Countercyclical Monetary Policies-517.pdf](#)

8:00am - 9:30am

### E03: Political Economy IV

8:00am - 8:22am

### Do Left-wing Governments Decrease Wage Inequality? Empirical Evidence Based on Salaries of Civil Servants

Björn Kauder<sup>1,4</sup>, Manuela Krause<sup>1</sup>, Niklas Potrafke<sup>2,3,4</sup>

<sup>1</sup>German Economic Institute (IW), Germany; <sup>2</sup>ifo Institute, Munich, Germany; <sup>3</sup>University of Munich, Germany;

<sup>4</sup>CESifo

We investigate whether left-wing governments decrease wage inequality. The data is based on salaries of German civil servants. Since a reform in 2006, German state governments are allowed to design salaries of civil servants. We employ encompassing data for pay levels and professions including judges, professors, policemen, and administrators and distinguish between levels of operating experiences. We use five wage inequality measures comparing salaries across pay levels and operating experiences. The results do not suggest that left-wing governments were more active in decreasing wage inequality than center or right-wing governments. Cabinet members are civil servants themselves and decide on their own salaries: government ideology is also not shown to predict salaries of cabinet members. Because left-wing governments are perceived as taking action against income and wage inequality, future research should employ data from other federal states such as the United States to examine how government ideology influences salaries of civil servants.

 [Kauder-Do Left-wing Governments Decrease Wage Inequality Empirical Evidence Based-236.pdf](#)

8:22am - 8:45am

### Political Leadership And The Quality Of Public Goods: Does Religion Matter?

Aloys Prinz, Christian Johannes Sander

University of Münster, Germany

We analyze the provision of public goods in alternative political regimes. Our theoretical model implies that the population is less satisfied with the public goods provision in theocratic or autocratic regimes compared to democratic regimes. In addition, the quality of public goods is conjectured to increase with increasing religious diversity in autocratic and democratic regimes. We test these hypotheses using the delivery quality indicator as a measure of public goods quality in 190 countries. Our empirical estimates confirm that both theocratic and autocratic regimes provide a lower average delivery quality than democracies. Furthermore, we find a positive association of religious leadership with delivery quality in strict autocracies. Greater religious diversity is linked to a better provision of public goods in democracies.

 [Prinz-Political Leadership And The Quality Of Public Goods-395.pdf](#)

8:45am - 9:07am

### Gender Gap in Political Careers: Evidence from Competitive Elections

Davide Cipullo

Uppsala University, Sweden

This paper exploits two-stages elections to investigate determinants and consequences of gender differences in voters' support. The empirical analysis builds on partisan primaries for the US House of Representatives and runoff elections in Italian municipalities. Candidates admitted to the final round by a narrow margin are equal in all characteristics, which include ambition and party support, to candidates who barely miss the qualification. I find that female candidates who barely qualify for the final round are respectively 20 and 40 percent less likely to be elected than barely qualified male candidates. Gender differences in the probability of election worsen the career trajectory of female candidates for up to three terms after treatment.

 [Cipullo-Gender Gap in Political Careers-359.pdf](#)

9:07am - 9:30am

### A Leaky Pipeline: Recontest Rates and the Underrepresentation of Women in Politics

Thushyanthan Baskaran<sup>1</sup>, Zohal Hessami<sup>2</sup>

<sup>1</sup>University of Siegen, Germany; <sup>2</sup>University of Mannheim, Germany

The underrepresentation of women in politics has received substantial attention in recent public debates. One important but mostly overlooked reason for female underrepresentation are gender gaps in recontest rates of candidates. Using hand-collected data on more than 110,000 candidates in four consecutive local council elections in Hesse between 2001 and 2016, we provide evidence for a raw gender recontest gap of about 5.7%, i.e. female candidates are 5.7 percentage points less likely than male candidates to run again conditional on having been candidates before. The existence of the gender recontest gap is robust across various model specifications and appears to be a nearly universal phenomenon. We also study in detail several mechanisms (party bias in fielding candidates, gender differences in electoral performance, extent of male dominance in local councils) to explain the observed gender recontest gap.

 [Baskaran-A Leaky Pipeline-551.pdf](#)

8:00am - 9:30am

### E04: Inequality II

8:00am - 8:22am

### The Effect of Cultural Consumption on Modern Economic Growth Path and Wealth Inequality

Tsuyoshi Shinozaki<sup>1</sup>, Anna Mignosa<sup>2</sup>, Mitsuyoshi Yanagihara<sup>3</sup>, Mazza Isidoro<sup>4</sup>, Minoru Kunizaki<sup>5</sup>

<sup>1</sup>Tohoku Gakuin University, Japan; <sup>2</sup>Catania University, Italy; <sup>3</sup>Nagoya University, Japan; <sup>4</sup>Catania University, Italy;

<sup>5</sup>Aichi University, Japan

This paper develops an economic growth model that includes cultural capital. We focus on the effect of cultural capital on economic growth and wealth inequality. Cultural capital holds both externalities and public goods characteristics such as non-rivalry and non-excludability. These properties are somewhat neglected in the literature on economic growth. We find that whether cultural capital accelerates economic growth or not depends on cultural capital and preferences for cultural goods. We also show that, along the transition path to the steady state, cultural capital always reduces wealth inequality. Thus, public support to culture contributes to the reduction of income inequality in the transition path.

 [Shinozaki-The Effect of Cultural Consumption on Modern Economic Growth Path and Wealth Inequality-530.pdf](#)

**8:22am - 8:45am**

### Revealing Equity Principles from the Tax System

**Kristoffer Berg**

University of Oslo, Norway

Which equity principles can support current tax policy? This paper shows how vertical and horizontal equity rationalize tax policy choices by governments. While vertical equity provides the standard inequality aversion rationale for redistributive taxation, most tax models ignore horizontal equity. Horizontal equity introduces a restriction against tax discrimination based on certain characteristics, which is necessary to explain current tax policy. The first contribution is to map the government's total marginal priority into the concerns for vertical and horizontal equity. Then I derive a sufficient statistic for the effect of horizontal equity on inequality aversion. The second contribution is to apply the model to the current gender neutral taxation in Norway. The result is that inequality aversion is overestimated if horizontal equity is ignored.

 [Berg-Revealing Equity Principles from the Tax System-308.pdf](#)

**8:45am - 9:07am**

### Inequality, Growth and the Environment: a Reappraisal

**Marianna Gilli<sup>1</sup>, Francesco Nicolli<sup>1</sup>, Francesco Vona<sup>2</sup>**

<sup>1</sup>University of Ferrara, Italy; <sup>2</sup>Centre de recherche en Économie (OFCE), Sciences Po, Paris, France

This work has the ambitious aim of building a new Environmental Kuznets Curve (EKC), which accounts for non-homotheticity in green preferences and sharp nonlinearities in the impact of economic growth on the environment. Theoretically, our research is motivated by the fact that, if environmental quality is a good with low priority in the hierarchical scale, both the first- and the second-moments of the within-country distribution of income matters in shaping pollution impacts of growth. Particularly, for a given level of income per capita, a richer median voter will be more willing to approve more stringent environmental policies and thus a lower inequality is beneficial for the environment. With non-homothetic preferences, the beneficial environmental effect of reducing inequality emerges only for countries that are sufficiently rich. Our results for CO<sub>2</sub>, SO<sub>2</sub> and N<sub>2</sub>O emissions corroborate our main hypothesis.

 [Gilli-Inequality, Growth and the Environment-127.pdf](#)

**9:07am - 9:30am**

### Late Payments, Liquidity Constraints and the Mismatch Between Due Dates and Payday

**Momi Dahan, Udi Nisan**

Hebrew University, Israel

This paper examines a small random liquidity shock to reveal the effect of liquidity constraints on late payment behavior. In Jerusalem, water bill due dates are randomly determined and therefore may occur just before or after social security paydays. We compared the likelihood of late payments by low-income households when they receive their social benefits a day after the water bill due date to the likelihood of late payment by the same households when they receive their benefits a day or more before the water bill due date. Using a large administrative data set, we found that a small random liquidity shock leads to a substantial increase in late payments of more than 10 percentage points among income support recipients and around 6 percentage points for old-age pension recipients with supplementary income. The mismatch may result in reduced psychological well-being, interest charges and late fees, contributing to the poverty penalty.

 [Dahan-Late Payments, Liquidity Constraints and the Mismatch Between Due Dates and Payday-270.pdf](#)

**8:00am - 9:30am**

## E05: Local Public Finance V

**8:00am - 8:22am**

### Coordinating To Avoid The Catastrophe

**Vitus Bühl, Robert C. Schmidt**

FernUniversität in Hagen, Germany

In the presence of a tipping point for dangerous climate damages, the cooperation problem of climate protection can be transformed into a coordination problem that is easier to deal with. In this paper, we focus on the question how non-signatories coordinate to avoid the catastrophe, for a known tipping point. In particular, for a multiplicity of equilibria in this coordination problem, the assumption that outsiders will always successfully coordinate to avoid the threshold, even if this is in their collective interest, seems overly optimistic. We analyze how the probability that the outsiders coordinate on an equilibrium in which the threshold is avoided, affects the incentives of countries to join the climate coalition. In some cases, there are multiple equilibria at the participation stage: an equilibrium with full participation, and an equilibrium in which a much smaller coalition forms – just so large that the catastrophe is avoided with positive probability.

 [Bühl-Coordinating To Avoid The Catastrophe-552.pdf](#)

**8:22am - 8:45am**

### Threat Misestimation and Collective Risk Management in Alliance

**Toshihiro Ihori<sup>1</sup>, Shintaro Nakagawa<sup>3</sup>, Martin McGuire<sup>2</sup>**

<sup>1</sup>National Graduate Institute for Policy Studies; <sup>2</sup>University of California-Irvine; <sup>3</sup>Konon University

This paper investigates the impacts on collective risk management of mistakes made in estimating the severity of a threat in a two allied country model. Misestimation concerning threat could occur in two ways. First, it comes from a bias in the estimate of loss in a bad event. Second, it comes from a bias in the estimation of the probability of a bad event. Because of such threat misestimates, countries may react to overprovide or underprovide public goods for international security. Using an alliance model developed in Ihori et al. (2019), we examine how misestimation of a threat affects burden-sharing and welfare among allies. Biased estimation affects the behavior of allies through changes in security spending motivated by self-insurance and self-production measures. Using simple numerical simulations, we investigate how misestimates affect burden-sharing and welfare in a simple alliance model.

 [Ihori-Threat Misestimation and Collective Risk Management-514.pdf](#)

**8:45am - 9:07am**

### Soft-Budget Constraints in Municipalities

**Zarko Kalamov<sup>1</sup>, Klaas Staal<sup>2</sup>**

<sup>1</sup>University of Technology Berlin; <sup>2</sup>Karlstad University, Sweden

We consider municipalities of different size that provide local public goods with positive externalities. A central government can induce optimal expenditure levels with matching grants, but the rationale behind this system leads to soft-budget constraints. We show that the too-big-to-fail and too-small-to-fail soft-budget constraints can emerge,

and derive the conditions under which each result emerges.

 [Kalamov-Soft-Budget Constraints in Municipalities-563.pdf](#)

**9:07am - 9:30am**

### Loan Choice of Local Governments in the United Kingdom

**David Avino<sup>2</sup>, Dennis De Widt<sup>1</sup>**

<sup>1</sup>Cardiff University, United Kingdom; <sup>2</sup>Liverpool University, United Kingdom

We study how local governments' debt financing decisions relate to the term structure of interest rates. To this end, we build a loan database merging fixed-rate and variable-rate loans originated by the Public Works Loan Board (PWLB), an agency of the UK Debt Management Office, with hand-collected data on variable-rate Lender Option Borrower Option (LOBO) loans offered by private sector banks. We document that a simple decision rule based on adaptive expectations is a major determinant of the time variation of the share of LOBO loans at both aggregate and individual loan level. LOBO-specific terms including loan maturity, call date and call frequency also play an important role. In addition to the adaptive decision rule, borrowing constraints are major determinants of the share of PWLB variable-rate loans. Our findings suggest that loan choices of local governments could be consistent with near-rational decision-making.

 [Avino-Loan Choice of Local Governments in the United Kingdom-107.pdf](#)

**8:00am - 9:30am**

## E06: Family Economics

**8:00am - 8:22am**

### Socio-Economic Determinants of Child Marriage: Evidence from the Iranian Provinces

**Mohammad Reza Farzanegan<sup>1</sup>, Mozghan Asna-ashary<sup>2</sup>, Mehdi Feizi<sup>3</sup>, Hassan F. Gholipour<sup>4</sup>**

<sup>1</sup>Philipps-Universität Marburg; <sup>2</sup>Ferdowsi University of Mashhad; <sup>3</sup>Ferdowsi University of Mashhad; <sup>4</sup>Swinburne University of Technology

We study the socio-economic determinants of child (girls below age of 19) marriage using a panel data of 30 Iranian provinces from 2007 to 2015. Our panel fixed effects and generalized method of moments (GMM) estimations show that the level of income per capita (with negative effect), inflation and income inequality (both with positive effect) are the significant determinants of child marriage. Our results which control for province fixed effects (e.g. local cultural norms or geographical conditions) do not show a significant effect of religiosity captured by households spending on religious products and services. To reduce child marriage which has long-run negative effects on the development of children, policymakers need to focus on economic issues and distribution of income, reducing the economic incentives or necessities of families to accept the child marriage. Child marriage is more rooted in economic deprivation than in religiosity of households.

 [Farzanegan-Socio-Economic Determinants of Child Marriage-110.pdf](#)

**8:22am - 8:45am**

### Family Policies and Child-Related Earnings Gaps in Germany

**Timm Bönke<sup>2</sup>, Ulrich Glogowsky<sup>1</sup>, Emanuel Hansen<sup>3</sup>, Holger Luethen<sup>2</sup>, Dominik Sachs<sup>1</sup>**

<sup>1</sup>LMU Munich, Germany; <sup>2</sup>FU Berlin; <sup>3</sup>University of Cologne

Combining German administrative data ranging from 1949 to 2015 with quasi-experimental variation, we study the dynamic impacts of parental leave policies on women's earnings trajectories. In a first descriptive part of the paper, we confirm the substantial and persistent effects of parenthood on mother's careers: Due to children, mothers earn roughly 55% less compared to fathers or women with-out children, even ten years after birth. Furthermore, the child-related earnings gap increased substantially from the 1950s to the early 2000s. In the second part of the paper, we exploit a dynamic regression discontinuity design to demonstrate that a sequence of parental leave reforms can explain a large share of this increase in the earnings gaps, both in the short and medium run. This finding suggests that, despite creating job security, parental leave policies can harm women's careers.

 [Bönke-Family Policies and Child-Related Earnings Gaps in Germany-582.pdf](#)

**8:45am - 9:07am**

### Children And Married Mothers' Labour Market Outcomes: Causal Evidence From German Tax Data

**Johannes Köckels, Sven Stöwhase**

Fraunhofer FIT, Germany

We estimate the causal effect of the number of children on maternal labour supply and income for Germany. To solve the problem of the endogeneity of fertility, we apply an instrumental variable approach by using twins at first and second birth as the exogenous variation for family size. Exploring unique administrative tax data including almost 7,000 observations with twin births, we are able to analyze these effects for heterogeneous subgroups of the German population. We find a negative effect of an additional child on maternal employment of 2.4 - 2.6 pp. An additional child reduces labour income by 472 Euro p.a., which is around 9.5% of average maternal labour income. Among families with at least two children, we don't find a significant effect. There are large differences between West and East Germany with stronger effects in West Germany after the second and in East Germany after the third child.

 [Köckels-Children And Married Mothers Labour Market Outcomes-355.pdf](#)

**9:07am - 9:30am**

### Behavioral Response of Non-Resident Parents to Child Support Obligations: Evidence From SOEP

**Marianna Schaubert**

Fraunhofer Institute, Germany

The present paper investigates how parents responsible for child maintenance payments have responded to changes in the amount of obligations. The potential endogeneity of child support obligations is addressed by using SOEP panel data from 1985-2013 and applying individual fixed-effects instrumental variable models. Results for parents younger than 50 years old show that a €10 increase in monthly child support obligations decreases the likelihood of having an additional child by about 0.39 percentage points (about 3% at the sample mean). Furthermore, an increase in obligations does not have an impact on the likelihood of cohabiting with a new partner or on hours spent with children. There is only weak evidence of a positive (re)marriage incentive. There seems to be no adjustment in the parent's labor supply. To my knowledge, the present investigation is the first causal analysis of parents' behavioral response to child support obligations in Germany.

 [Schaubert-Behavioral Response of Non-Resident Parents to Child Support Obligations-448.pdf](#)

**8:00am - 9:30am**

## E07: Education I

**8:00am - 8:22am**

### Postgraduate Mobility And Tools Of The War For Talent, Why Ecuador Is Different?

**Marcel Georges Gerard<sup>1</sup>, Yukari Matsuzuka<sup>2</sup>, Alice Sanna<sup>1</sup>**

<sup>1</sup>UCLouvain, Belgium; <sup>2</sup>Hitotsubashi University, Japan

The paper extends the analysis of the tools used by countries engaged in a war for talent, to get back bright students they have sent abroad, and to keep on their territory top fellows they attracted for postgraduate education: master degrees and PhD.

One tool especially retains our attention, called Ecuadorian scholarship. The government of Ecuador distributes scholarships for studies abroad. Selected students enrol and pay tuition fees and other expenses using either the scholarship or their own funds. If they use own funds, they have no obligation to the Ecuadorian authorities. Unlike that, if they use the scholarship, they have to work for the government for a period of time, or repay the scholarship, or a guaranty should do.

That device seems to increase the number of returnees significantly. A questionnaire is up to be distributed among students who benefited, or did not, from that mechanism.

 [Gerard-Postgraduate Mobility And Tools Of The War For Talent, Why Ecuador Is Different-641.pdf](#)

**8:22am - 8:45am**

### The Impact of Instruction Time on Student Achievement

**Katharina Wedel**

ifo Institute, Germany

Recent evidence finds a positive effect of the quantity of instruction on student achievement. I add to this by showing that this effect also depends on the quality of instruction. Using international TIMSS data, I exploit within-student between-subject variation and apply a student fixed effects model. I find that one hour more instruction time leads to a 0.03 standard deviation increase in students' test scores across all countries, but has no significant effect in developing countries. However, the effect is moderated by teacher qualifications: also in developing countries, instruction time by a high-qualified teacher increases test scores by 0.02 standard deviations.

 [Wedel-The Impact of Instruction Time on Student Achievement-216.pdf](#)

**8:45am - 9:07am**

### The Impact Of Feedback On Effort And Performance In University Education: Evidence From A Field Experiment In Germany

**David Hardt**

Friedrich-Alexander University Erlangen-Nuremberg, Germany

This paper analyzes how university students' effort and exam performance respond to interim feedback on performance. In a field experiment, I randomly assign students into a treatment providing pre-exam feedback on their performance in an online test. Feedback increases study effort, but decreases the probability of passing the exam. Heterogeneity analyses suggest that the decrease is driven by students with a fixed grade target. One possible interpretation is that feedback can bias some students' beliefs about optimal learning strategies.

 [Hardt-The Impact Of Feedback On Effort And Performance In University Education-505.pdf](#)

**9:07am - 9:30am**

### Do Class-size Caps Have Unintended Consequences?

**A. Abigail Payne**

University of Melbourne, Australia

We study an unintended consequence of the introduction of a class-size cap on primary schooling grades. To meet the requirements of the cap, schools increased the use of multiple-grade classes which combined students in two grades (e.g. 2nd and 3rd grade) into a single classroom. Our study contributes to the research that explores the effect of classroom composition on student performance, utilizing data from 2,825 schools and over 900,000 students in 3rd grade. We explore the effects of differences in the probability of being placed in a multiple-grade classroom. Overall, we find that students in schools with higher probabilities perform worse on standardized tests. The effect is stronger for females than for males. However, for the subset of students that are identified as having special needs, we find that an increased likelihood of being enrolled in a multiple grade classroom has a strongly positive effect on test performance.

 [Payne-Do Class-size Caps Have Unintended Consequences-312.pdf](#)

**9:45am - 11:15am**

## F01: Firm Taxation I

### Is The Use Of Parental Debt Tax-Efficient?

**Mohammed Mardan, Arnt Ove Hopland**

Norwegian School of Economics (NHH), Norway

This study highlights the role of tax planning in explaining the use of parental debt by incorporating loss-making affiliates. We show that multinational firms' incentive to finance affiliates via parental loans qualitatively differs between high- and low-tax affiliates. While a higher loss probability implies that the parental debt-to-asset ratio decreases in affiliates facing a higher tax rate than the parent firm, it increases for affiliates in countries with a lower tax rate. We test our theoretical prediction using a unique affiliate-level panel dataset of Norwegian-based multinational entities' tax returns for the period 1993-2005, which allows us to observe both the bilateral lending-borrowing relationships between the parent and the subsidiaries as well as pre-tax profit/loss statements over time. The results of our empirical investigation show that the increases in the net parental debt-to-asset ratio is about three times higher in low-tax affiliates than in high-tax affiliates.

### Payroll Tax Reductions for Minimum Wage Workers: Relative Labor Cost or Cash Windfall Effects?

**Sophie Cottet**

Paris School of Economics, France

In France, Social Security Contributions, which tax both employers and employees, are particularly high in international standards. I exploit a series of reforms in the 1990s which reduced employer contributions at the minimum wage level. Using linked employer-employee administrative data, I study firm-level effects as well as the impact on the distribution of wages. I show that these reforms further distorted the distribution of wages towards the minimum wage, revealing a relative-costs effect. This change in distribution is due to higher retention and stems exclusively from firms with previously very low shares of minimum-wage workers. On the contrary, firms which saw their labor costs mechanically reduced by these reforms, increased employment at higher wage levels. In line with a cash-windfall effect, I also find that these firms, which saw their labor costs ex ante reduced by these reforms, showcased higher growth of employment and profits.

### Exploring different measures of residual profits using National Accounts

**Ana Cinta Cabral Gonzalez, Tibor Paul Hanappi, Belen Zinni, Nadim Ahmad**

OECD, France

This paper presents a methodology to estimate the extent and location of residual profits across jurisdictions, based primarily on National Accounts. The method has the flexibility of being applicable over time and to different levels of aggregation, e.g. total economy, corporate sector; allowing to monitor developments in the location of profits. Using micro-aggregated data sources in combination, the paper also seeks to provide estimates of the extent and location of residual profits attributable to MNEs across jurisdictions. Preliminary results are presented for OECD and non-OECD countries.

### Green Consumers, Emission Taxes, and Firm Relocation

**Laura Birg<sup>1</sup>, Jan S. Vofßwinkel<sup>2</sup>**

<sup>1</sup>University of Göttingen, Germany; <sup>2</sup>Nürtingen Geislingen University, Germany

This paper studies the interaction of environmental policy and green preferences under potential firm relocation. A green firm and a brown firm choose the environmental quality of their products. Both an emission tax and

consumers' willingness to pay for green products encourage investment in environmental quality. Firms may relocate to avoid taxation or abstain from investment in environmental quality to produce at lower cost.  
If the green firm does not relocate, both the green firm and the brown firm provide higher quality levels. Compared to first-best taxation, the equilibrium emission tax is lower (higher) if only the brown (green) firm relocates.

9:45am - 11:15am

**F02: International Taxation and Profit Shifting I**

9:45am - 10:07am

**Tariff Elimination versus Tax Avoidance: Free Trade Agreements and Transfer Pricing****Hiroshi Mukunoki<sup>1</sup>, Hirofumi Okoshi<sup>2</sup>**<sup>1</sup>Gakushuin University, Japan; <sup>2</sup>University of Munich, Germany

This paper explores new roles of rules of origin (ROO) when multinational enterprises (MNE) manipulate their transfer prices for avoiding a high corporate tax. ROO are accompanied by a formation of free trade agreement (FTA) and they require exporters to identify the origin of exports to be eligible for preferential tariff rate. The results suggest that a value-added criterion of ROO has an effect to restrict the MNEs' abusive transfer pricing. Interestingly, an FTA with ROO can induce the MNEs to shift profits from a low-tax country to a high-tax country. Because ROO augment tax revenues inside the FTA countries, they can transform a welfare-reducing FTA into a welfare-improving FTA.

 [Mukunoki-Tariff Elimination versus Tax Avoidance-268.pdf](#)

10:07am - 10:30am

**Exploring Residual Profit Allocation****Rudolf A. De Mooij, Michael Keen, Li Liu, Sebastian Beer, Shafik Hebous**

IMF, United States of America

Schemes of residual profit allocation (RPA) have recently and rapidly come to prominence in policy discussions, yet almost nothing is known about their impact on revenue, investment and efficiency. This paper explores these issues, conceptually and empirically. It finds residual profits to be substantial, but concentrated in a relatively few MNEs, headquartered in few countries. The impact on tax revenue of reallocating excess profits under RPA, while adverse for investment hubs, appears beneficial for lower income countries even when the formula allocates by destination-based sales. The impact on investment incentives is ambiguous and specific both to countries and MNE groups; only if the rate of tax on routine profits is low does aggregate efficiency seem likely to increase.

 [De Mooij-Exploring Residual Profit Allocation-654.pdf](#)

10:30am - 10:52am

**Profit Shifting in Two-sided Markets under a Destination-Based Cash Flow Tax****Henrik Svensli, Guttorm Schjelderup**

NHH Norwegian School of Economics, Norway

We study a multinational two-sided platform firm's (MNEs) pricing decisions on intra-firm transactions under a destination-based cash flow tax (DBCFT). The two-sided platform firm derives income from two customer groups connected through a positive network externality. Our main finding is that transfer prices deviate from marginal cost of production for a decentralized MNE under both universal and unilateral adoption of the DBCFT. When decisions are centralized, and the DBCFT is universally adopted, profit shifting is eliminated. Under unilateral adoption of the DBCFT when decisions are centralized profits are shifted to the adopting country. The extent of profit shifting and the impact from the network externality relies on functional form assumptions.

 [Svensli-Profit Shifting in Two-sided Markets under a Destination-Based Cash Flow Tax-434.pdf](#)

10:52am - 11:15am

**Corporate Taxation and the Distribution of Income****James R. Hines Jr.**

University of Michigan, United States of America

Corporate taxation affects the distribution of income both by changing relative returns to capital and labor and by reducing the share of corporate activity in the economy. Corporate investments are safer and have more diversified ownership than noncorporate alternatives, so a tax-induced reduction in corporate activity contributes to income dispersion and thereby increases income inequality. This effect is so large that higher corporate taxes can be associated with greater income inequality even when the corporate tax burden falls entirely on capital owned disproportionately by the rich. Risk considerations alone imply that a ten percent higher U.S. corporate tax rate increases by 0.8-1.7 percent the fraction of U.S. received by the top one percent of the income distribution, which may more than offset the distributional effect of reducing average returns to capital.

 [Hines Jr.-Corporate Taxation and the Distribution of Income-637.pdf](#)

9:45am - 11:15am

**F03: Political Economy V**

9:45am - 10:07am

**A Theory of Political Authority, Institutional Inertia, and Budget Discontinuity: Chinese Provincial Leadership Successions and Budgetary Changes****Dongmin Yao, Yongyi Zhu, Wenhong Yan**

Central University of Finance and Economics, China, People's Republic of

While budget structure discontinuity signals decisional shifts, it is less studied in the Chinese context. We identify and explain budget structure discontinuity in 30 Chinese provinces between 1996 and 2018. We identify that fiscal expenditure on economic development and that on science, education, culture, and healthcare (SECH) are more discontinuous, while expenditure on public safety is more incremental. We find that because Chinese provincial leaders have strong incentives to outperform predecessors and leaders of other provinces for better promotional prospects and transfer payments, new chief leaders gather political authority as their tenure increases and utilize their authority to overcome institutional inertia to achieve political missions, causing budget discontinuity. We empirically verify our mechanism and find that leaders strive for the upper reaches in economic development and approach the national average in SECH. With our mechanism, we form a coherent logic chain among institutional arrangements, budget discontinuity, and fiscal performance.

 [Yao-A Theory of Political Authority, Institutional Inertia, and Budget Discontinuity-148.pdf](#)

10:07am - 10:30am

**Accountability and the Allocation of Bureaucratic Skill: Evidence from India****Sebastian Jävervall**

Uppsala University, Sweden

Does increased government transparency improve the allocative efficiency of bureaucrats? I study the impact of politician disclosure requirements on the allocation of bureaucrats to public assignments and the returns to bureaucratic skill in India. By combining information on bureaucrats' qualifications, I construct a measure of bureaucratic mismatch – an index measuring the extent to which a bureaucrat is under- or overqualified to perform a specific task. Exploiting the staggering of Indian state assembly elections, I find that information disclosure reduces mismatches by about 2.5% of a standard deviation. This effect is primarily driven by mismatch reductions across the most important bureaucratic tasks and is larger in posts which matter the most for local policy implementation. Information disclosure also increases the returns to bureaucratic skill, defined as the probability of reaching top bureaucratic positions. These results are primarily explained by incoming chief ministers' propensity to reallocate

bureaucrats to new assignments post-disclosure.

 [Jävervall-Accountability and the Allocation of Bureaucratic Skill-339.pdf](#)

**10:30am - 10:52am**

**Good Public Policy: Multi-seat Majoritarian Elections as a New Institutional Approach**

**Reiner Eichenberger<sup>1,2</sup>, Patricia Schafer<sup>1</sup>, David Stadelmann<sup>2,3</sup>**

<sup>1</sup>University of Fribourg, Fribourg, Switzerland; <sup>2</sup>University of Bayreuth, Bayreuth, Germany; <sup>3</sup>CREMA, Center for Research in Economics, Management and the Arts

The welfare of nations is determined by the quality of their political institutions. But how do high quality institutions look like? The academic discourse focused so far on three elements: decentralization, direct democracy and the electoral system. Much of the latter research focuses on comparing majoritarian elections in single-seat districts with proportional elections in multi-seat districts. In contrast, we argue that there is a third and highly promising way of designing the electoral system: majority rule in multi-seat districts. We claim that this design exhibits important advantages, especially if combined with proportional elections for some of the political offices. We draw on the extensive Swiss experience with multi-seat majoritarian elections. We explain how these electoral institutions work and how they enhance the relationship between citizens, politicians, and parties, and we provide broad descriptive empirical evidence for their good performance.

 [Eichenberger-Good Public Policy-277.pdf](#)

**10:52am - 11:15am**

**Electoral Cycles in Macroeconomic Forecasts**

**Daive Cipullo, André Reslow**

Uppsala University, Sweden

This paper investigates whether governments release over-optimistic forecasts for GDP growth approaching elections. High-frequency data at the forecaster level from the United States, Sweden, and the United Kingdom document that governments overestimate short-term GDP growth by 0.16–0.31 percentage points in the months approaching a vote. Consistent with a model of political selection, in which the incumbent government releases optimistic forecasts to signal high ability in order to increase re-election probability, we find that the bias is larger when the incumbent government is not term-limited or constrained by a parliament led by the opposition. Moreover, the bias is allocated across different forecast horizons based on election seasonality. We also show that a reform that outsourced the main forecasting function from the HM Treasury in the United Kingdom to a newly formed government agency reduced the overall bias of forecasts, but not the electoral cyclicity.

 [Cipullo-Electoral Cycles in Macroeconomic Forecasts-285.pdf](#)

**9:45am - 11:15am**

**F04: Income Tax and Labor Supply Behavior I**

**9:45am - 10:07am**

**Earnings Responses to Even Higher Taxes**

**Dingquan Miao<sup>2</sup>, Håkan Selin<sup>1</sup>, Martin Söderström<sup>1</sup>**

<sup>1</sup>Institute for Evaluation of Labour Market and Education Policy (IFAU), Sweden; <sup>2</sup>Linnaeus University, Växjö, Sweden

Sweden introduced a phase-out of the earned income tax credit in 2016. As a consequence, taxpayers belonging to the top 5 percent of the earnings distribution, already facing high taxes, experienced a 7 % reduction in their net-of-tax shares. While exploiting rich full-population administrative data up to 2017, we evaluate earnings responses to the reform. When graphically and econometrically comparing earnings growth at different segments of the distribution, we estimate a significant relative earnings reduction in the treatment group immediately appearing in 2016, and growing in 2017. The implied earnings elasticity is fairly low and around 0.1. We interpret the essential features of the response using a simulation model, in which people have noisy perceptions of the piece-wise linear tax code. To simulate the empirically observed response, we need to add more noise to perceptions than what is motivated by earnings uncertainty alone.

 [Miao-Earnings Responses to Even Higher Taxes-271.pdf](#)

**10:07am - 10:30am**

**Labor Supply Responses and Adjustment Frictions: A Tax-Free Year in Iceland**

**Josef Sigurdsson**

Bocconi University

Labor income earned in Iceland in 1987 was not taxed. I use this to study labor supply responses to temporary wage changes. I construct a new population-wide dataset of earnings and working time from digitized payslips and use two identification strategies to estimate intensive and extensive margin Frisch elasticities of 0.37 and 0.07, respectively. These average responses are driven by those with the ability to adjust in response: extensive margin responses are driven by young and close-to-retirement cohorts and intensive margin responses are driven by workers in temporally flexible and hourly paid jobs, though take-up of secondary jobs contributes to one-tenth of the overall response. Finally, I find that married women with children respond more than husbands, who themselves respond negatively to wives' tax cuts, consistent with substitutability in non-market time. Overall, the results suggest that adjustment frictions and household interdependencies reduce aggregate labor supply responses to tax cuts.

 [Sigurdsson-Labor Supply Responses and Adjustment Frictions-419.pdf](#)

**10:30am - 10:52am**

**Labor Supply Response to a Tax Holiday: The Take-Home From a Large and Salient Shock**

**Arnaldur Stefánsson**

University of Gothenburg, Sweden

I study labor supply adjustments during a year in which labor income was tax-free (a tax holiday). Due to a transformation from a retroactive to a pay-as-you-earn tax system, Icelandic labor income earned in 1987 was never taxed. Still, there was no cash-flow shock as taxpayers, during the tax holiday, paid taxes on income earned in the year before. This provides an ideal setting for estimating the Frisch elasticity of labor supply. In a difference-in-difference setting, exploiting a progressive tax scheme, I estimate an intensive margin elasticity of 0.06. There is no evidence of an extensive margin response. It is possible that individuals face stronger frictions during the tax holiday than in the long run. Therefore, I exploit an additional tax reform, combined with the tax holiday, showing that the data is consistent with a tax holiday elasticity of 0.05 and a long-run Frisch elasticity of 0.43.

 [Stefánsson-Labor Supply Response to a Tax Holiday-627.pdf](#)

**10:52am - 11:15am**

**Job Displacement and Wage Distribution Effects on a Centralized Wage Bargaining Scheme**

**Rodrigo Ceni, Paula Carrasco, Cecilia Parada, Sofia Santin**

Universidad de la Republica, Uruguay

The objective of this paper is to determine the job displacement and the wage distribution effects of a centralized scheme of minimum wages, which consists of a national minimum wage, and ninety sectoral minimum wages above it. National government sets general guidelines, then workers' unions and employers' chambers bargain the minimum wage adjustment. We use a novel and unique database of private workers and the minimum wages by sectors for ten years. To estimate job displacement, we exploit as identification strategy, those jobs with wages above the current minimum wage, but below the next minimum one. We find an overall negative impact on the survival of jobs, and this effect is more significant among those jobs occupied by women and youngsters. We also

	<p>find an overall contraction in the wage distribution, which is higher and localized in the lower wages among the more binding population, such that females and youngsters.</p> <p> <a href="#">Ceni-Job Displacement and Wage Distribution Effects on a Centralized Wage Bargaining Scheme-528.pdf</a></p>
<p><b>9:45am - 11:15am</b></p>	<p><b>F05: Fiscal Federalism</b></p> <p><b>9:45am - 10:07am</b>  <b>"Fiscal Decentralization and Preference Heterogeneity"</b>  <b>Takeshi Miyazaki</b>  Kyushu University, Japan</p> <p>Oates' Decentralization Theorem is the basis of the theory of fiscal federalism. This study reconsiders the theorem with a focus on the role of preference heterogeneity. The Decentralization Theorem predicts that the larger (smaller) the heterogeneity in preferences for local public goods across regions, the larger (smaller) the benefits of decentralization. Contrary to this conventional view, the present study shows that larger degrees of preference heterogeneity may increase the benefits of centralization. If the difference in preferences is small and/or spillovers in local public goods are large, then a rise in the preference of a region with higher taste, among two regions with different tastes, is more likely to increase the welfare differential between centralization and decentralization. Thus, larger preference difference may make a centralized regime preferable to a decentralized regime in terms of welfare.</p> <p> <a href="#">Miyazaki-Fiscal Decentralization and Preference Heterogeneity-321.pdf</a></p> <hr/> <p><b>10:07am - 10:30am</b>  <b>Fiscal Episodes In The EMU: Elasticities And Non-keynesian Effects</b>  <b>Antonio Afonso</b>  ISEG, Portugal</p> <p>We estimate short- and long-run elasticities of private consumption for fiscal instruments, using a Fixed Effects model for the 19-euro area countries during the period of 1960-2017. According to the results, positive "tax revenue" elasticities indicate that consumers have a Ricardian behaviour. "Social benefits" appear to have a non-keynesian effect on private consumption. In addition, using a narrative approach to identify fiscal consolidations, it is seen that private consumption continues to exhibit a non-keynesian response to tax increases, both in the short and long-run, and "other expenditures" have a recessive impact during "normal times". Furthermore, "social benefits" are more contractionary in consolidations than in both expansions and "normal times". Additionally, after the launch of the EMU, expansionary fiscal consolidations became harder to observe, and "other expenditure" and "investment" lost their non-keynesian role.</p> <p> <a href="#">Afonso-Fiscal Episodes In The EMU-103.pdf</a></p> <hr/> <p><b>10:30am - 10:52am</b>  <b>A Theory of Economic Disintegration</b>  <b>Eckhard Janeba, Karl Schulz</b>  University of Mannheim, Germany</p> <p>We develop a theory of economic disintegration that features both endogenously formed tax and trade policies. We show very generally that the economic disintegration of a country from an economic union leads to a deeper integration of international trade institutions. Moreover, we set up a multi-country, multi-sector general equilibrium trade model with internationally mobile firms. We address the key dimensions of economic disintegration, such as tariffs, non-tariff barriers, the harmonization of production standards and regulations, as well as household migration and analyze their effects on the domestic tax policies of asymmetric countries.</p> <p> <a href="#">Janeba-A Theory of Economic Disintegration-305.pdf</a></p> <hr/> <p><b>10:52am - 11:15am</b>  <b>Local Government Fiscal Regulation in the EU: The Impact of Balanced Budget Rules</b>  <b>Beate Jochimsen<sup>1</sup>, Christian Raffer<sup>2</sup></b>  <sup>1</sup>HWR Berlin, Germany; <sup>2</sup>Hertie School of Governance</p> <p>In the past decades many European countries implemented numerical fiscal rules in order to strengthen fiscal discipline on all levels of government. Although plenty of research points to the discipline-enhancing effect of these rules on the national level, comparably little is known about their impact on local governments. This is even truer when it comes to the effect of specific rules like the Balanced Budget Rule (BBR). With this contribution, we shed some light on the question if BBRs are an effective instrument to put local government budget balances on a sound footing. We estimate a dynamic fiscal reaction function within a LSDVC framework using a panel of 19 European countries over a period of 19 years (1997-2015). The results suggest a discipline enhancing effect of BBRs over a range of different specifications. Thus, simply making a BBR has no effect; what counts is its proper implementation.</p> <p> <a href="#">Jochimsen-Local Government Fiscal Regulation in the EU-363.pdf</a></p>
<p><b>9:45am - 11:15am</b></p>	<p><b>F06: Property Taxation I</b></p> <p><b>9:45am - 10:07am</b>  <b>Properties of Property Taxation</b>  <b>Rainald Borck<sup>1</sup>, Jun Oshiro<sup>2</sup>, Yasuhiro Sato<sup>3</sup></b>  <sup>1</sup>University of Potsdam, Germany; <sup>2</sup>Okinawa University, Japan; <sup>3</sup>University of Tokyo</p> <p>We explore properties of decentralized property taxation in the system of cities taking location decision of agents into consideration. Fiscal decentralization causes inefficient race to the top taxation because local authorities excessively provide local public goods to attract mobile workers, thereby eroding tax base of other regions. We evaluate the actual tax structure in Japan and Germany by conducting numerical simulations. Comparing to the observed state, the equilibrium tax rates under the decentralized regime are higher in Japan but lower in Germany. Transition to the decentralized regime from the observed one raises social welfare for both countries by 0.2–2.9%. Centralized taxation can mitigate inefficiency of the race to the top behavior. Welfare gains from such coordination are limited.</p> <p> <a href="#">Borck-Properties of Property Taxation-374.pdf</a></p> <hr/> <p><b>10:07am - 10:30am</b>  <b>Who Bears the Burden of Real Estate Transfer Taxes? Evidence from the German Housing Market</b>  <b>Mathias Dolls, Clemens Fuest, Carla Krolage, Florian Neumeier</b>  ifo Institute, Germany</p> <p>This paper examines the effects of real estate transfer taxes (RETT) on house prices using a rich micro dataset on German properties covering the period from 2005 to 2018. We exploit a 2006 constitutional reform that allowed states to set their own RETT rates, leading to frequent increases in states' tax rates in subsequent years. Our monthly event study estimates indicate a price response that strongly exceeds the change in the tax burden for single transactions. I.e., twelve months after a reform, a one percentage point increase in the tax rate reduces property prices by on average 3.5%. Effects are stronger for apartments and apartment buildings than for single-family houses. We interpret these results in the context of a theoretical model that accounts for the effects of RETT on a property's resale value.</p> <p> <a href="#">Dolls-Who Bears the Burden of Real Estate Transfer Taxes Evidence-347.pdf</a></p>

	<p><b>10:30am - 10:52am</b></p> <p><b>Heterogeneous Price Effects Of The Real Estate Transfer Tax In Germany</b></p> <p><b>Désirée I. Christofzik<sup>3</sup>, Lars P. Feld<sup>2</sup>, Mustafa Yeter<sup>1</sup></b></p> <p><sup>1</sup>German Council of Economic Experts, Germany; <sup>2</sup>Walter Eucken Institute; <sup>3</sup>Federal University of Applied Administrative Sciences</p> <p>We use quarterly data for German districts and large cities to study how housing prices respond to higher transaction costs triggered by tax increases. Following a large-scale reform of fiscal federalism, decision making power for the real estate transfer tax has been allocated to the state level followed by several and substantial tax hikes. This created variation over time and across states. In our empirical analysis, we exploit this variation. By distinguishing between rural and urban as well as shrinking and growing regions, we find heterogeneous price responses. Housing prices decrease stronger in rural and shrinking regions. This implies that a higher share of the economic incidence of this tax falls on the seller in these regions.</p> <p> <a href="#">Christofzik-Heterogeneous Price Effects Of The Real Estate Transfer Tax-553.pdf</a></p>
	<p><b>10:52am - 11:15am</b></p> <p><b>Property Taxation, Housing, and Local Labor Markets: Evidence from German Municipalities</b></p> <p><b>Max Löffler<sup>1</sup>, Sebastian Sieglöcher<sup>2</sup></b></p> <p><sup>1</sup>Maastricht University; <sup>2</sup>ZEW and University Mannheim</p> <p>We analyze the incidence and the welfare implications of property taxation. We suggest a novel theoretical perspective by introducing property taxes in a spatial equilibrium model, where workers and firms are mobile but have location-specific preferences, and where tax revenues finance local public goods. The model predicts that welfare effects of property taxation depend on four reduced-form elasticities. We estimate these elasticities using an event-study design and exploiting the institutional setting of municipal property taxation in Germany with more than 31,000 tax reforms in the years between 1992–2017. Our results imply that renters bear one fifth, firm owners about one third, and land owners more than 40 percent of the welfare loss of property tax increases.</p> <p> <a href="#">Löffler-Property Taxation, Housing, and Local Labor Markets-673.pdf</a></p>
<p><b>9:45am - 11:15am</b></p>	<p><b>F07: Education II</b></p> <p><b>9:45am - 10:07am</b></p> <p><b>Should School-level Results Of National Assessments Be Made Public?</b></p> <p><b>Atsuyoshi Morozumi<sup>1</sup>, Ryuichi Tanaka<sup>2</sup></b></p> <p><sup>1</sup>University of Nottingham; <sup>2</sup>University of Tokyo</p> <p>How national standardized assessments should be designed has been debated extensively. This paper contributes to this debate by examining empirically how the public disclosure of information on school-level assessment scores impacts student outcomes. To this end, we highlight the policy reform in Japan in 2014, whereby the Ministry of Education granted each municipality the discretion to decide whether to make assessment results of each school within the municipality public. Utilizing the resulting variations in the information disclosure system across municipalities, we show that the disclosure of school-level test scores increases students' average test scores, without increasing the dispersion of individual scores among students. Inspecting the mechanism, schools under accountability pressure make better use of diagnostic information from assessments to improve teaching quality. Analysis further suggests that publishing school-level results does not have any adverse impact on students' non-cognitive skills.</p> <p> <a href="#">Morozumi-Should School-level Results Of National Assessments Be Made Public-306.pdf</a></p> <p><b>10:07am - 10:30am</b></p> <p><b>Government Funding Incentives and Study Program Capacities in Public Universities</b></p> <p><b>Jan Morten Dyrstad, Mia Marie Walgren Sohlman, Tor Henrik Teigen</b></p> <p>NTNU, Norway</p> <p>The paramount objective of the European Bologna process is to increase productivity in higher education in Europe. Performance based funding (PBF) of public higher education institutions (HEIs) has been extended as a measure for this objective, and one would expect adjustment of study program capacities to take place. On Norwegian data we show that the HEIs adjust program capacities such that the long run elasticity of enrollment w.r.t. capacity equals one, as theory predicts, but only if there is internal and/or external competition for students, otherwise not. Moreover, the strengthening of PBF in 2006 did not affect capacity adjustment, with one possible exception. Instead of adjusting capacities the HEIs adjust admissions to meet targets of full enrollment. The results question the effectiveness of the ongoing reform processes of European higher education, with a policy implication of more attention on overall allocation of study places, instead of more PBF.</p> <p> <a href="#">Dyrstad-Government Funding Incentives and Study Program Capacities-180.pdf</a></p> <p><b>10:30am - 10:52am</b></p> <p><b>The Earlier, The Better? Grading Policies In Primary School And Student Achievement*</b></p> <p><b>Lukas Mergel, Ludger Wößmann, Larissa Zierow</b></p> <p>ifo Institute, Germany</p> <p>We examine whether having grades on report cards in primary schools enhances student achievement and students' motivation to go to school. We exploit within-country variation in grading policies from Germany's decentralized school system, where a series of state-level reforms introduced or abolished number grades in favor of narrative reports in the first two years of primary school. We find that grading early in primary school has no significant short-run effect on student achievement or students' motivation to go to school, on average. In the medium-run, however, motivation increases. Heterogeneity analysis reveals that early grading narrows the achievement gap between students of different socioeconomic backgrounds by about one-fourth of the total gap in the short-run, and further strengthens the equality-enhancing effects in the medium-run.</p> <p> <a href="#">Mergel-The Earlier, The Better Grading Policies In Primary School And Student Achievement-633.pdf</a></p>
<p><b>11:30am - 1:00pm</b></p>	<p><b>G01: Firm Taxation II</b></p> <p><b>Optimal Multi-Regime Tax Systems</b></p> <p><b>Joel Slemrod<sup>1</sup>, John Douglas Wilson<sup>2</sup></b></p> <p><sup>1</sup>University of Michigan; <sup>2</sup>Michigan State University</p> <p>Developing countries often use two taxes to collect revenue from firms, a turnover tax for small firms and a profit tax for large firms. We study the optimal design of this tax system in an economy where taxes not only distort the output decisions of firms (the "intensive margin"), but also their choice between operating in the formal sector of the economy, where taxation is possible, or in the untaxed informal sector (the "extensive margin"). The optimal tax rule for each tax is derived, and we show that if firms with outputs above a particular level must pay the profit tax, then a set of firms will reduce their outputs to this level to avoid paying the profit tax ("bunching"). This tax system is compared to alternatives, and other policies are analyzed, including license fees and auditing and monitoring of firms.</p> <p> <a href="#">Slemrod-Optimal Multi-Regime Tax Systems-628.pdf</a></p>

**Taxation of Multi-Product Firms with Cost Complementarities****Arlynn Quinton White**

University of North Carolina at Chapel Hill, United States of America

I analyze how taxes impact prices, quantities, and welfare when products are connected via demand or cost relationships. Exploiting spatial and temporal variation in taxes from 1993 to 2015, I estimate a discrete-choice, oligopoly model of the U.S. aviation industry—a network setting where demand-side substitutes are straightforward to observe and cost complementarities arise naturally. I show that cost complementarities increase incidence on taxed products and cause incidence to spill over across products. Taxation of hub airports generates larger spill-over effects and greater negative effects on consumer welfare. Simulations of revenue-neutral tax policies such as standardization of taxes across routes and subsidization of hub airports find improvement in consumer welfare on average, but effects are limited by competing effects on prices in untaxed routes.

 [White-Taxation of Multi-Product Firms with Cost Complementarities-249.pdf](#)
**Rent Taxation, Externalities, and BEPS****Diderik Lund**

University of Oslo, Norway

In theory a tax on natural resource rent is neutral. If possible, all such rent should be taxed at high rates in order to minimize the need for other, distortionary taxes. This paper considers two reasons to deviate from a neutral tax. One is the problem of base erosion and profit shifting that may occur if rent is taxed at a high rate. This may be counteracted by relying partly on a tax on output value instead of rent taxation alone. It is also assumed that there is a negative externality proportional to the output of the resource. This can be corrected by a Pigouvian tax on output. The analysis shows that the output tax that follows from the first of these considerations does not alleviate the second problem, and vice versa. There is even a positive interaction term.

 [Lund-Rent Taxation, Externalities, and BEPS-279.pdf](#)
**What is Driving the Decline in Contributions of Multinational Firms to Corporate Tax Revenues?****Katarzyna Bilicka**

Utah State University, United States of America

This paper explores reasons for declining contributions of multinational firms to corporate tax revenues. Using a population of UK corporate tax returns, I show that over the period 2000 - 2014 multinationals paid a declining fraction of corporate tax revenues, while expanding in size. In 2014 over 70% of total assets reported on UK company balance sheets were held by companies that paid no tax and are part of a multinational group. I show that a large and increasing fraction of companies that belong to large multinational groups with low growth of total assets reports to have no taxable profits. Further, tax incentives for small and medium companies have increased the number and the revenues of those companies. Finally, an increasing fraction of companies in multinational groups enter the UK market reporting no taxable profits in the first year, and 80% remain doing so in later years.

 [Bilicka-What is Driving the Decline in Contributions of Multinational Firms-219.pdf](#)

11:30am - 1:00pm

**G02: International Taxation and Profit Shifting II**

11:30am - 11:52am

**An Assessment of Global Formula Apportionment****Rudolf A. De Mooij, Li Liu, Dinar Prihardini**

IMF, United States of America

Formula apportionment is receiving increased attention. This paper exploits different datasets to assess the direct revenue implications for individual countries under alternative formulas. The distributional effects across countries are found to be large, reflecting major discrepancies between where profits are currently attributed and where factors of production are located or sales take place. The largest losses appear in investment hubs, while several large advanced countries are likely to gain. Developing countries gain most likely if employment receives a large weight in the formula; they also tend to benefit, on average, from a formula based on sales by destination.

 [De Mooij-An Assessment of Global Formula Apportionment-656.pdf](#)

11:52am - 12:15pm

**Transfer Pricing with Dishonest Subsidiaries****Timothy Goodspeed**

Hunter College - CUNY, United States of America

This paper explores how parent multinationals set transfer prices when subsidiaries are dishonest and abscond with part of the profits. With dishonest subs and knowledgeable parents, we find that the parent's transfer price (1) is higher than the optimal transfer price with no evasion, (2) is a nonlinear function of evasion, and (3) a higher subsidiary tax rate may increase or decrease the optimal transfer price. On the one hand a higher foreign tax rate leads to a higher transfer price to shift income home; on the other hand, it leads to more evasion which if strong enough might overwhelm the ability to bring income back home.

 [Goodspeed-Transfer Pricing with Dishonest Subsidiaries-223.pdf](#)

12:15pm - 12:37pm

**International Business Tax Reform: Modelling Impacts On Investment Incentives Based On Forward-looking Effective Tax Rates****Tibor Paul Hanappi, Ana Cinta Gonzalez Cabral**

OECD, France

The digitalisation of the economy poses challenges to the international tax system. The OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) has agreed to examine and develop a set of proposals to reform international tax rules comprised in two pillars. This paper develops a framework to analyse the impact of Pillar 1 and 2 on investment decisions. Based on the standard effective tax rate framework, it extends the model to incorporate the profit shifting behaviour of multinationals (MNEs) and the various design features of the proposals. The results, covering over 70 jurisdictions, account for differences in tax bases and rates; and are empirically calibrated to account for differences across countries in the location of multinationals' low-tax profits. Overall, the results suggest that the proposals would lead to modest increases on global ETRs, with the biggest effects falling on investment hubs.

 [Hanappi-International Business Tax Reform-602.pdf](#)

12:37pm - 1:00pm

**Tax Losses and Ex-Ante Offshore Transfer of Intellectual Property****Michael Stimmelmayr<sup>1</sup>, Joel Slemrod<sup>2</sup>, Rishi R. Sharma<sup>3</sup>**<sup>1</sup>University of Bath, United Kingdom; <sup>2</sup>University of Michigan, USA; <sup>3</sup>Colgate University, USA

In this paper, we show that multinational firms have an incentive to transfer intellectual property with an uncertain return to a low-tax jurisdiction when the treatment of losses are asymmetric at home. Firms have an incentive to avoid potentially negative profits at home by transferring its intellectual property to a foreign affiliate before learning the profitability of the asset. The results also show that firms can have similar incentives to transfer intellectual property to a jurisdiction, where tax rates are comparable or even higher than at home if the foreign jurisdiction offers a more symmetric treatment of losses.

 [Stimmelmayr-Tax Losses and Ex-Ante Offshore Transfer of Intellectual Property-609.pdf](#)

11:30am - 1:00pm	<b>G03: Political Economy VI</b>
	<p><b>11:30am - 11:52am</b></p> <p><b>Elections and Government (In)Efficiency: Evidence from German Municipalities</b></p> <p><b>Florian Dorn</b> ifo Institute Munich, University of Munich (LMU), Germany</p> <p>Several studies have shown how electoral cycles influence fiscal and policy outcomes. There is however no evidence whether efficiency in the provision of public goods and services is affected by strategic behavior around election dates. This paper examines the causal effect of electoral cycles in the executive branch (mayor) on local government efficiency using OLS fixed effects, event study, and instrumental variable estimations in a large balanced panel of around 2000 municipalities in the German state of Bavaria. Cost efficiency estimates are released by employing a fixed effects semi-parametric stochastic frontier analysis. The results show that mayoral cycles decrease inefficiencies in election and pre-election years by around 0.75 – 0.85 %. The effect is larger if executive and council election cycles overlap, and when incumbent mayors run for office again. My findings suggest an efficiency-enhancing effect of election cycles in an institutional framework of high fiscal decentralization, transparency and direct elections.</p> <p> <a href="#">Dorn-Elections and Government-644.pdf</a></p>
	<p><b>11:52am - 12:15pm</b></p> <p><b>Perceived Immigration And Voting Behavior</b></p> <p><b>Roberto Zotti, Pierluigi Conzo, Davide Bellucci</b> University of Torino, Italy</p> <p>Several studies document significant effects of real immigration on electoral outcomes. This paper focuses, instead, on expected immigration by looking at how Italian voters' behavior is affected by pre-electoral sea arrivals of refugees. We develop an index of exposure to refugee arrivals that varies over time and across municipalities depending on the nationality of the incoming migrants. It captures the impact of expected immigration on voting behavior, on top of the effects of real immigration measured by the local stock of immigrants and refugees. We find that in municipalities where refugees are more expected to arrive, political participation decreases, whereas protest votes and support for extreme-right, populist and anti-immigration parties increases. Since these effects are stronger in areas better served by internet, characterized by high immigration salience, and located closer to the ports of disembark, electoral campaigns likely played a key role in boosting voters' expectations of future arrivals.</p> <p> <a href="#">Zotti-Perceived Immigration And Voting Behavior-607.pdf</a></p>
	<p><b>12:15pm - 12:37pm</b></p> <p><b>Enfranchising Foreigners: What Drives Natives' Willingness to Share Power?</b></p> <p><b>Anna Koukal<sup>1,2</sup>, Patricia Schafer<sup>2</sup>, Reiner Eichenberger<sup>2</sup></b> <sup>1</sup>Swiss Distance University Institut; <sup>2</sup>University of Fribourg</p> <p>Universal suffrage is a core element of democracy. However, in many democratic countries a large part of the inhabitants are foreigners without suffrage. This paper analyzes the conditions under which domestic citizens are willing to extend suffrage to foreign residents. We explore a new municipality level dataset of 35 Swiss referenda on the enfranchisement of foreigners at the cantonal level. The Swiss setting provides a unique laboratory for capturing the drivers of the enfranchisement of foreigners, as it allows for measuring revealed preferences of the actual electorate. Our OLS and IV estimates show that voters are the less willing to enfranchise foreigners the more the municipal share of foreigners is increasing. This effect increases in the cultural distance between the foreign and native population. We discuss potential instrumental and non-instrumental channels that might explain our findings.</p> <p> <a href="#">Koukal-Enfranchising Foreigners-632.pdf</a></p>
	<p><b>12:37pm - 1:00pm</b></p> <p><b>Expressive Voting As Self-signaling</b></p> <p><b>Juho Antti Iivari Alasalmi</b> University of Konstanz, Germany</p> <p>I propose a model of voting for redistributive policy under uncertainty about future incomes that incorporates both the expressive and instrumental accounts of voting behavior. The expressive motivations of voting are endogenized as anticipatory concerns of future consumption with voting as a possibility for self-signalling: voting for low taxation, or more generally, identifying with the party that supports low taxation, is consistent with the desirable belief of high future consumption. The model can simultaneously explain why given the negligible impact of voting on the aggregate outcome and the nonnegligible costs of voting, voters vote in the first place and why voters sometimes seem to vote against their self-interest, at least in the narrow sense of economic outcomes. The model also generates novel predictions. Given income expectations, higher degree of income uncertainty may decrease the demand for redistribution.</p> <p> <a href="#">Alasalmi-Expressive Voting As Self-signaling-292.pdf</a></p>
11:30am - 1:00pm	<b>G04: Income Tax and Labor Supply Behavior II</b>
	<p><b>11:30am - 11:52am</b></p> <p><b>The Impact of Parental Leave Benefits on Pre-Birth Earnings</b></p> <p><b>Ulrich Glogowsky<sup>1</sup>, Emanuel Hansen<sup>2</sup>, Leonie Koch<sup>1</sup>, Andreas Peichl<sup>1,3</sup>, Dominik Sachs<sup>1</sup></b> <sup>1</sup>LMU Munich, Germany; <sup>2</sup>University of Cologne; <sup>3</sup>ifo</p> <p>The German parental leave benefits were introduced in 2007. The benefits imply strong incentives to increase pre-birth earnings as the amount of benefits is explicitly linked to the earnings of the 12 months before birth. This implies that effective marginal tax rates for pre-birth earnings of expecting parents are substantially lowered. The variation in effective marginal tax rates is much larger than used in previous studies estimating the elasticity of taxable income. We want to exploit this quasi-experimental setting to explore the effects on pre-birth earnings and thereby estimate earnings elasticities. In addition, the incentive structure is rather complex and the marginal replacement rate for the parental leave benefit is less salient. Hence, expecting parents could misperceive the exact incentive structure. This will allow us to contribute to the literature on tax complexity and misperceptions.</p> <p> <a href="#">Glogowsky-The Impact of Parental Leave Benefits on Pre-Birth Earnings-420.pdf</a></p>
	<p><b>11:52am - 12:15pm</b></p> <p><b>In-work Benefits Under Participation And Hours Constraints. Improving Labor Supply Incentives For Secondary Earners</b></p> <p><b>Kai-Uwe Mueller, Katharina Wrohlich</b> DIW Berlin, Germany</p> <p>The paper extends a static discrete-choice labor supply model by adding participation and hours constraints. Both, preferences and restrictions are allowed to vary by and are related through observed and unobserved characteristics. We distinguish various restrictions mechanisms: labor demand rationing, working hours norms varying across occupations, and insufficient public childcare on the supply side of the market. We apply the empirical framework to evaluate an in-work benefit for low-paid parents in Germany supposed to increase work incentives for secondary earners. Based on the structural model we are able to disentangle behavioral reactions into the pure incentive effect and the limiting impact of constraints at the intensive and extensive margin. We find that the in-work benefit for parents substantially increases working hours of mothers of young children, especially when they have a</p>

low education. Simulating the effects of restrictions shows their substantial impact on employment of mothers with young children.

 [Mueller-In-work Benefits Under Participation And Hours Constraints Improving Labor Supply Incentives-653.pdf](#)

**12:15pm - 12:37pm**

### Estimating the Elasticity of Taxable Income: New Insights and a New Approach

**Katrine Jakobsen<sup>1</sup>, Jakob Egholt Søgaard<sup>2</sup>**

<sup>1</sup>University of Copenhagen, Denmark; <sup>2</sup>University of Copenhagen, Denmark

We revisit the estimation of taxable income responses using tax reforms, and show that the state-of-the-art estimation strategy is in essence a Triple Difference Estimation (DiDiD). This insight makes the identifying assumption clear: Absent tax reforms the difference in income trends across the income distribution would have remained constant. We show how this assumption of constant trend differentials can be validated both graphically and econometrically by inspecting income dynamics across the income distribution between periods with and without tax reforms, and we see this new approach as an essential tool for evaluating the credibility of elasticity estimates. We illustrate our new approach using tax and benefit reforms in Denmark.

 [Jakobsen-Estimating the Elasticity of Taxable Income-102.pdf](#)

**12:37pm - 1:00pm**

### Information, Ethnic Diversity, and Preferences for Redistribution

**Dirk Foremny**

Universitat de Barcelona / I.E.B., Spain

Results from a large-scale survey experiment in Spain reveal large misperceptions about the level of taxes and the level of government which sets tax rates and receives revenues. Respondents underestimate their true tax burden, but an information treatment is able to remove that difference relative to a control group. Another treatment informs participants about the fact that 50% of the personal income tax base belongs to regional governments. I show that the first treatment

changes the way respondents would design a tax reform towards a more progressive system. The second treatment is particularly important with respect to the ethnic diversity in Spain. Treated respondents regard income differences between rich and poor as more important. The effect is approximately 10% relative to the baseline, and larger for individuals born in their region of residence and those which report strong regionalities.

 [Foremny-Information, Ethnic Diversity, and Preferences for Redistribution-442.pdf](#)

**11:30am - 1:00pm**

### G05: Bunching

**11:30am - 11:52am**

### Tax Withholding and Earnings Supply: Evidence from Bunching at the Withholding Eligibility

**David Leite<sup>1,2,3</sup>**

<sup>1</sup>Paris School of Economics; <sup>2</sup>EHESS; <sup>3</sup>Institute of Public Policy - Lisbon

This paper reveals taxpayers' responses at the starting point of tax withholding.

Relying on a large dataset of Portuguese tax returns for the fiscal year of 2014, we use bunching techniques to identify responses to effective or perceived tax incentives. First, we find no excess mass at the kinks of the tax schedule for wage earners and self-employed taxpayers. Second, we find that wage earners and self-employed workers in de facto employer-employee relationships strongly bunch at the annual values of full-time minimum wage. Third, we find that self-employed taxpayers deriving their income from many different payors significantly bunch at the tax withholding eligibility threshold. We interpret these findings as revealing misperceptions on the tax system, as the withholding threshold is neutral with respect to the final tax liability. Our results might contribute to the design of socially optimal tax collection systems, particularly in contexts of progressive taxation and uncertain incomes.

 [Leite-Tax Withholding and Earnings Supply-238.pdf](#)

**11:52am - 12:15pm**

### Using the Alternative Minimum Tax to Estimate the Elasticity of Taxable Income for Higher-Income Individuals

**Ali Abbas**

Cornell University, United States of America

This paper exploits large kinks generated by the intersection of the regular income tax and the alternative minimum tax (AMT) schedules to provide fresh estimates of the elasticity of taxable income with respect to the net-of-tax rate. Such cross-schedule interactions can confound the location of analyzable kinks if either of the two schedules are considered independently of each other. Further, the magnitude of the kink resulting from this interaction is greater than for kinks found separately in the two tax schedules, potentially generating more substantial behavioral responses. I use publicly available Statistics of Income (SOI) individual tax return data from 1993-2011 to exploit bunching around the "intersection kink point" and generate estimates of the elasticity of taxable income for higher-income individuals in the United States. Estimated elasticity is 0.14, an order of magnitude higher than earlier bunching estimates, and as high as 0.29 for taxpayers revealing no long-term capital gains between 2003-2011.

 [Abbas-Using the Alternative Minimum Tax to Estimate the Elasticity-327.pdf](#)

**12:15pm - 12:37pm**

### Bunching by Owners of Small Corporations: Targeted Tax Incentives and Firm Heterogeneity

**Nicole Bosch<sup>1</sup>, Gabriella Massenz<sup>2</sup>**

<sup>1</sup>CPB Netherlands Bureau for Economic Policy Analysis; <sup>2</sup>Tilburg University

We use tax return and administrative Dutch microdata over 2008-2014 to analyze bunching of firms at the two kinks of the corporate income tax schedule for small and medium sized firms. We find evidence of bunching at the 200,000 euros tax kink, with great heterogeneity across firms. Specifically, larger and older firms are more responsive to changes in tax rates. Moreover, we investigate the use of targeted tax incentives and loss offsets to reduce taxable income and find that the use of investment deductions and pension reservations is widespread but heterogeneous across firms. Although bunching behavior is less clear at the zero threshold, we find somewhat similar patterns in heterogeneity and use of targeted tax incentives.

 [Bosch-Bunching by Owners of Small Corporations-301.pdf](#)

**12:37pm - 1:00pm**

### Better Bunching, Nicer Notching

**Marinho Berthana<sup>1</sup>, Andrew McCallum<sup>2</sup>, Nathan Seeger<sup>3</sup>**

<sup>1</sup>University of Notre Dame; <sup>2</sup>Federal Reserve Board; <sup>3</sup>University of Utah, United States of America

A continuous distribution of agents that face a piecewise-linear schedule of incentives results in a distribution of responses with mass points located where the slope (kink) or intercept (notch) of the schedule changes. Bunching methods use these mass points to estimate an elasticity parameter, which summarizes agents' responses to incentives. This paper studies identification of the elasticity. First, a notch identifies the elasticity but a kink does not when the distribution of agents is non-parametric and continuous. Second, we propose new identification assumptions on the distribution of agents that are weaker than assumptions currently made in literature. Third, we revisit the original empirical application of the bunching estimator, which is in the economics literature that examines the largest means-tested cash transfer program in the United States. Our weaker identification assumptions result in meaningfully different estimates of the elasticity of reported income with respect to tax rates.

 [Berthana-Better Bunching, Nicer Notching-571.pdf](#)

11:30am - 1:00pm

## G06: Property Taxation II

11:30am - 11:52am

### The Impact of Local Property Taxation on Firm Growth and Location: Evidence from Flanders

**Sander Ramboer**

VATT Institute for Economic Research, Finland

Determinants of firm growth and location patterns are many and often unobserved. The influence of local taxation is likely to be dominated by other factors, whose variation over time and space may well be correlated with local tax setting behaviour. In this paper, we set out from this observation to causally identify the effect of large property tax shocks on firm growth and location decisions. By zooming in on firms and entrants clustered near municipal borders, local pull and push factors are accounted for through spatial differencing. This identification approach is enhanced by instrumental variables and by taking into account previously overlooked place-based policy and local public investment, shown to otherwise bias the property tax effect. Nevertheless, the results provide strong evidence for a negative impact of property taxation on firm growth and entry.

 [Ramboer-The Impact of Local Property Taxation on Firm Growth and Location-515.pdf](#)

11:52am - 12:15pm

### Housing Taxation: A New Database For Europe

**Salvador Barrios<sup>1</sup>, Cecile Denis<sup>2</sup>, Vīginta Ivaskaite-Tamosiune<sup>1</sup>, Adriana Reut<sup>3</sup>, Estefania Vazques Torres<sup>1</sup>**

<sup>1</sup>European Commission, Joint Research Centre; <sup>2</sup>European Commission, Directorate-General for Taxation and Customs Union; <sup>3</sup>European Commission, Directorate-General for Economic and Financial Affairs

Tax incentives favouring homeownership are widely used in developed economies. Homeownership is often thought to bring a number of positive contributions, from the promotion of households' saving to enhanced community engagement. However, housing tax incentives are also considered as a major source of distortions for households' decisions, especially in absence of taxation of in-kind services related to housing consumption and in presence of mortgage interest payment deductibility. Our database includes information for the period 1995-2017 on transfer taxes incurred when buying a house, implicit recurrent property taxes owed by households, capital gain taxes, imputed rent taxation and mortgage interest tax reliefs. We use this data to estimate the user cost of owner-occupied housing (UCOH) following the approach proposed by Poterba, (1992) and Poterba and Sinai (2008), which provides a synthetic indicator on the distortions exerted by the tax system on households' housing investment choices.

 [Barrios-Housing Taxation-196.pdf](#)

12:15pm - 12:37pm

### Efficiency and Equity Effects of Place-Based Policies: Evidence from Capital Subsidies in East Germany

**Tobias Etzel<sup>2</sup>, Sebastian Sieglöcher<sup>1</sup>, Nils Wehrhöfer<sup>1</sup>**

<sup>1</sup>ZEW and University of Mannheim, Germany; <sup>2</sup>Bundesbank

We study the effects of capital investment subsidies mostly targeted at East German manufacturing firms post reunification. Exploiting quasi-experimental variation in the regional targeting of capital subsidies and administrative data on the regional and firm level, we estimate the causal effects of a large-scale place-based policy on local employment. In the course, we pay special attention to inter-regional as well as intraregional, inter-sectoral spillovers, which underly the overall policy effect. Moreover, we assess the distributional implications of the policy, assessing its contribution to the overall change in within-East inequality.

 [Etzel-Efficiency and Equity Effects of Place-Based Policies-675.pdf](#)

12:37pm - 1:00pm

### Intercity Infrastructure and Policy Choices of Local Governments

**Eddy H.F. Tam<sup>1</sup>, Jing Xing<sup>2</sup>**

<sup>1</sup>Centre for Business Taxation, Saïd Business School, University of Oxford; <sup>2</sup>Antai College of Economics and Management, Shanghai Jiao Tong University

Intercity transportation reduces trade costs among regions and can lead to concentration of production. We examine how such infrastructure affects the incentives and policy choices of local governments, using the construction of China's national expressway as a natural experiment. Governments of connected peripheral counties changed both the level and the composition of their budgetary spending. They became less involved in inter-jurisdictional spending competition that aimed to attract private capital. We further find that firms in connected peripheral counties received less subsidies and faced a higher effective tax rate. Peripheral county governments also became less likely to privatize state-owned firms with the expressway connection. Our study indicates that intercity transportation infrastructure can suppress incentives of peripheral local governments to promote growth, which may widen the economic inequality between core and peripheral regions.

 [Tam-Intercity Infrastructure and Policy Choices of Local Governments-389.pdf](#)

11:30am - 1:00pm

## G07: Migration I

11:30am - 11:52am

### The Indirect Fiscal Benefits of Low-Skilled Immigration

**Mark Colas<sup>2</sup>, Dominik Sachs<sup>1</sup>**

<sup>1</sup>LMU Munich, Germany; <sup>2</sup>University of Oregon

We explore how low-skilled immigration indirectly affects public finances through the effect on wages and tax payments of natives. We derive a simple transparent formula for this indirect fiscal effect for the canonical model (college and high school labor as imperfect substitutes) and for alternative settings that have been considered in the empirical immigration literature. Based on existing estimates of the wage effects and a careful calibration of marginal tax rates, we show that one low-skilled immigrant adds between \$500 and \$1,500 annually to U.S. public finances through this channel.

 [Colas-The Indirect Fiscal Benefits of Low-Skilled Immigration-584.pdf](#)

11:52am - 12:15pm

### The Gift of Moving: Intergenerational Consequences of a Mobility Shock

**Josef Sigurdsson<sup>1</sup>, Emi Nakamura<sup>2</sup>, Jon Steinsson<sup>2</sup>**

<sup>1</sup>Bocconi University; <sup>2</sup>University of California, Berkeley

We exploit a volcanic "experiment" to study the costs and benefits of geographic mobility. We show that moving costs (broadly defined) are very large and labor therefore does not flow to locations where it earns the highest returns. In our experiment, a third of the houses in a town were covered by lava. People living in these houses were much more likely to move away permanently. For those younger than 25 years old who were induced to move, the "lava shock" dramatically raised lifetime earnings and education. Yet, the benefits of moving were very unequally distributed within the family: Those older than 25 (the parents) were made slightly worse off by the shock. The large gains from moving for the young are surprising in light of the fact that the town affected by our volcanic experiment was (and is) a relatively high income town.

 [Sigurdsson-The Gift of Moving-423.pdf](#)

12:15pm - 12:37pm

### The Role Of Information Provision For Attitudes Towards Immigration: An Experimental Investigation

**Patrick Bareinz<sup>1</sup>, Silke Uebelmesser<sup>1,2</sup>**

<sup>1</sup>Friedrich-Schiller-University Jena; <sup>2</sup>CESifo

We conduct a survey experiment to estimate the effect of information provision on attitudes towards immigration in Eastern Germany. Our focus lies on two theory-based economic channels: labor market and welfare state concerns. Our experimental design employs probability-based representative survey data and experimentally varies the quantity and the type of information provided to respondents. We find that the provision of a bundle of information on both the share and the unemployment rate of foreigners decreases welfare state concerns about immigration. In conjunction, larger and hence more biased beliefs about the unemployment rate of foreigners are negatively linked with immigration attitudes. Data-driven analyses reveal that treatment effects vary considerably across societal groups. Our results offer important implications for policy measures aiming to reduce biases in beliefs about immigration, suggesting that careful targeting and composition of information campaigns can increase their effectiveness in the context of the public debate on immigration.

 [Bareinz-The Role Of Information Provision For Attitudes Towards Immigration-436.pdf](#)

1:15pm - 2:45pm

### H01: Tax Evasion I

#### Tax Evasion, Public Goods and Tax Progressivity: Evidence from Taxing the Ghosts

**Enrico Rubolino**

University of Essex, United Kingdom

Stricter tax enforcement can raise tax collections, finance public goods provision and lower the efficiency costs of raising taxes. We study these links in the context of the Ghost Buildings program: an anti-tax evasion policy that detected buildings not reported on land registry in Italy. Using cross-municipality variation in scope for enforcing buildings' registration, we show that tax collections account for around three-fourth of the projected revenue increase. We find complementarity between enforcement and local tax rates on property and income, which ultimately led to larger investments in schools. Exploiting a discontinuity in incentives for complying with the program, we show that constraining local administrators' discretion in enforcing tax collection was a crucial mechanism.

 [Rubolino-Tax Evasion, Public Goods and Tax Progressivity-232.pdf](#)

#### Does Giving Tax Debtors a Break Improve Compliance and Income? Evidence from Quasi-Random Assignment of IRS Revenue Officers

**William C. Boning<sup>1</sup>, Joel Slemrod<sup>2</sup>, Elen Stuart<sup>2</sup>, Alex Turk<sup>3</sup>**

<sup>1</sup>U.S. Department of the Treasury; <sup>2</sup>University of Michigan, United States of America; <sup>3</sup>Internal Revenue Service, United States of America

When economic hardship prevents a tax debtor from paying basic living expenses, the IRS puts debt collection efforts on hold and designates the debt currently not collectible (CNC). Suspending collection eases the pressure on debtors, which could lead them to reduce payments against their debt. Pausing collection could also enable debtors to stabilize their finances and earn greater income. This paper uses the quasi-random assignment of IRS Revenue Officers to tax debtors' cases as an instrumental variable to identify the causal effects of putting off debt collection on tax compliance and future income. We find that, among marginal hardship cases, suspending collection reduces debt payments and increases debt outstanding. In contrast to ordinary least squares estimates, we do not find that pausing collection efforts significantly reduces the likelihood that debtors file tax returns or reduces debtors' incomes.

 [Boning-Does Giving Tax Debtors a Break Improve Compliance and Income Evidence-298.pdf](#)

#### Size, Characteristics And Distributional Effects Of Self-Employment Income Tax Evasion In Italy

**Carlo Fiorio**

university of milan, Italy

By building a novel dataset linking the 2013 Italian Household Budget Survey with individual tax records over a period of 7 years, we manage to estimate a food expenditure equation disentangling households with prevalent income from self-employment, which is self-declared, from those with mostly third-party reported income, reducing measurement error by a great extent. We also depart from the usual constant share of underreporting, showing that underreporting heterogeneity among self-employed is significant, being larger for singles and for college-educated households. We show that self-employed workers in Italy exhibit a similar attitude to tax evasion than in other developed countries, hence pointing to the structure of the economy for an explanation of why aggregate tax evasion in Italy is larger than in other developed countries.

 [Fiorio-Size, Characteristics And Distributional Effects Of Self-Employment Income Tax Evasion-497.pdf](#)

#### Corporate Taxation and Evasion Responses: Evidence from a Minimum Tax in Honduras

**Thiago Scot<sup>1</sup>, Felipe Lobel<sup>2</sup>**

<sup>1</sup>UC Berkeley, United States of America; <sup>2</sup>UC Berkeley, United States of America

In this paper we use administrative data on the universe of corporate taxpayers between 2011-2018 to study the impact of a minimum tax implemented in Honduras. We first document substantial tax evasion when costs are deductible: large corporations significantly increase their reported profit margins when incentives to over report costs disappear, implying evasion rates of up to 17% of profits. We then show that firms strategically reduce reported revenue in order to locate below the exemption threshold for the minimum tax policy and estimate revenue elasticity around one. Bunching is less pronounced when third-party information on revenues is available, suggesting the response is partly explained by misreporting. Using these parameters, we calibrate a model of firm optimization and study the impacts of alternative tax schedules. As designed, we estimate the minimum tax policy increased tax revenues by up to 30%, but at the cost of substantially decreasing firms' aggregate profits.

 [Scot-Corporate Taxation and Evasion Responses-488.pdf](#)

1:15pm - 2:45pm

### H02: Environmental Economics III

1:15pm - 1:37pm

#### Climate Change-Expenditure and Economic Growth Links in India: An Empirical Analysis

**Lekha S Chakraborty, Amandeep Kaur**

NIPFP, India

The paper examines the links between climate change related public expenditure and economic growth in the context of subnational governments in India, against the analytical backdrop of environmental federalism. Using the panel model estimations, we examined the impact of fiscally decentralized public policy stance on climate change in India, along with the economic growth variables. The paper takes the empirical analysis of the widely explored Kuznets U phenomenon between growth and the environmental quality, incorporating the public expenditure variables. The inferences from the fixed effects models of pooled least squares reveal a link between decentralized climate responsive budgeting and the environmental quality. The policy implication of these inferences get further strengthened with the efficacy of ecological intergovernmental fiscal transfers designed in India on environmental

quality indicators, despite the initial negative effects of GDP growth on climate change.

 [Chakraborty-Climate Change-Expenditure and Economic Growth Links-577.pdf](#)

**1:37pm - 2:00pm**

### **Deadly Variation: The Effect of Temperature Variability on Mortality**

**Isabel Hovdahl**

Norwegian University of Science and Technology, Norway

While economists have focused on the effect of mean temperatures on mortality, climate scientists have emphasized that global warming might not only lead to an increase in mean temperatures, but can potentially also affect temperature variability. This is the first paper to estimate the causal effect of temperature variability on mortality. Using monthly state level data for the US in the period 1969-2004, I offer three main results: (1) Increased monthly temperature variation causes increased mortality, (2) omitting the effect of temperature variability on mortality can severely bias our predictions on the number of temperature-induced fatalities caused by global warming, and (3) adaptation to increased temperature variability is more difficult than adaptation to increased mean temperatures.

 [Hovdahl-Deadly Variation-394.pdf](#)

**2:00pm - 2:22pm**

### **Strategic Interdependencies Among Governments in the Provision of Energy**

**Doina Radulescu<sup>1</sup>, Philippe Sulger<sup>2</sup>**

<sup>1</sup>University of Bern, Switzerland; <sup>2</sup>Swiss Competition Authority

Many economies are concerned with the future security of their electricity supply. This is rooted in the necessity to decarbonise energy systems and in the nuclear phase-out. Hence, some countries, instead of investing in own domestic energy capacity, rely on energy production by their neighbours and prefer to import electricity at low prices. At the same time, many countries claim to drastically cut back their fossil fuel energy production. Yet, they increasingly rely on fossil fuel energy imports from abroad. To analyse these interdependencies we employ data on new plant investment capacities in 25 European countries from 1971 to 2017 and data on energy imports, production and consumption from the International Energy Agency. We first examine how governments strategically respond to changes in investment by countries in the vicinity. Using spatial econometric models we find a negative relationship between countries' investment in energy capacities. Second, we use fixed effects and instrumental variable estimators as well as an event study framework to analyse the link between domestic fossil energy production and imports. Our results reveal that a decline in domestic fossil energy production has a positive effect on fossil energy imports, suggesting that countries substitute one for the other.

 [Radulescu-Strategic Interdependencies Among Governments in the Provision-493.pdf](#)

**2:22pm - 2:45pm**

### **The Local Economic Impact of Natural Disasters**

**Brigitte Roth Tran<sup>1</sup>, Daniel John Wilson<sup>2</sup>**

<sup>1</sup>Federal Reserve Board; <sup>2</sup>Federal Reserve Bank of San Francisco

We use county panel data to study the dynamic response of local economies following disasters in the U.S. Specifically, we estimate disaster impulse response functions for personal income per capita, as well as a broad range of other economic outcomes, using a panel version of the local projections estimator. In contrast to prior studies using cross-country variation, we find that the longer-run (as of 8 years out) effect of disasters on personal income per capita is significantly positive, driven largely by an increase in average weekly wages. We then assess the heterogeneity of disaster impacts across several dimensions including disaster severity. We find that the more severe the disaster, as measured by monetary damages, the larger the longer-run increase in income per capita. In the final part of the paper, we assess the role of government disaster aid as a mediating factor contributing to the post-disaster response of personal income.

 [Roth Tran-The Local Economic Impact of Natural Disasters-473.pdf](#)

**1:15pm - 2:45pm**

## **H03: Political Economy VII**

**1:15pm - 1:37pm**

### **Rubber Stamping Opportunity Zones**

**Tarik Umar, Jefferson Duarte, Emmanuel Yimfor**

Rice University, United States of America

Theory suggests that when communication between different levels of government is impaired or there are political pressures, central planners may not be able to maximize social welfare. We provide novel empirical support for these mechanisms using a recent place-based policy allowing governors to designate certain census tracts as opportunity zones (OZs), conferring tax incentives for investment. We collect communications between mayors (local officials) and governors (central planners) nominating which tracts to select. We find: First, though mayors' nominations are the most important determinant of governors' OZ selections, nominations appear to be non-informative for the policy's effect. This finding is consistent with an impairment of communication and governors simply allocating projects to all interested local officials (universalism). Second, governors rubber stamp nominations more when political pressures are greater. Finally, rubber stamping resulted in 40% of selected OZs being in areas that were predictably expected to bring no additional investments.

 [Umar-Rubber Stamping Opportunity Zones-456.pdf](#)

**1:37pm - 2:00pm**

### **Lobbying For Size And Slice Of The Quota**

**Pauli Lappi**

University of Helsinki, Finland

The formation and the allocation of an emission quota is analyzed in a common agency framework with two stages. First, the principals (firms or countries) lobby for the size of the aggregate quota. Second, after the aggregate quota has been set, the principals lobby for the individual slices of the quota. It is shown that although the slices are allocated such that the marginal profits of the principals are equalized, the size of the aggregate quota is distorted from the social optimum characterized by the Samuelson's rule for public goods. This quota is set such that the aggregate marginal profit from it is less than the marginal damage, and in effect, there is an overallocation of individual and aggregate quotas. The results are extended to cover tradable emission permits.

 [Lappi-Lobbying For Size And Slice Of The Quota-234.pdf](#)

**2:00pm - 2:22pm**

### **Positive Spillovers from Negative Campaigning**

**Vincenzo Galasso, Tommaso Nannicini, Salvatore Nunnari**

Bocconi University, Italy,

Negative advertising is frequent in electoral campaigns, despite its ambiguous effectiveness: negativity may reduce voters' evaluation of the targeted politician but have a backlash effect for the attacker. We study the effect of negative advertising in electoral races with more than two candidates with a large scale field experiment during an electoral campaign for mayor in Italy and a survey experiment in a fictitious mayoral campaign. In our field experiment, we find a strong, positive spillover effect on the third main candidate (neither the target nor the attacker). This effect is confirmed in our survey experiment, which creates a controlled environment with no ideological components nor strategic voting. The negative ad has no impact on the targeted incumbent, has a sizable backlash effect on the attacker, and largely benefits the idle candidate. The attacker is perceived as less cooperative, less

likely to lead a successful government, and more ideologically extreme.

 [Galasso-Positive Spillovers from Negative Campaigning-185.pdf](#)

**2:22pm - 2:45pm**

**Polls, the Press, and Political Participation: The Effects of Anticipated Election Closeness on Voter Turnout**

**Leonardo Bursztyn<sup>1</sup>, Davide Cantoni<sup>2</sup>, Patricia Funk<sup>3</sup>, Noam Yuchtman<sup>4</sup>**

<sup>1</sup>University of Chicago; <sup>2</sup>LMU Munich; <sup>3</sup>Università della Svizzera italiana, Switzerland; <sup>4</sup>London School of Economics  
Models of voting, including the canonical rational voter model, predict that voters are more likely to turn out when they anticipate a closer election. Yet, evidence of a causal effect of anticipated election closeness on voter turnout is limited. We exploit naturally occurring variation in the existence, closeness, and dissemination of pre-election polls to identify a causal effect of anticipated election closeness on voter turnout in Swiss referenda. Closer elections are associated with greater turnout only when polls exist. Examining within-election variation in newspaper reporting on polls across cantons, we find that close polls increase turnout significantly more where newspapers report on them most. This holds examining only "incidental" exposure to coverage by periodicals whose largest audience is elsewhere. The introduction of polls had larger effects in politically unrepresentative municipalities, where locally available information differs most from national polls.

 [Bursztyn-Polls, the Press, and Political Participation-199.pdf](#)

**1:15pm - 2:45pm**

**H04: Labor Market Policy and Taxation**

**1:15pm - 1:37pm**

**Optimal Taxation of Robots**

**Uwe Thuemmel**

University of Zurich, Switzerland

I study the optimal taxation of robots and labor income. In the model, robots substitute for routine labor and complement non-routine labor. I show that while it is optimal to distort robot adoption, robots may be either taxed or subsidized. The robot tax exploits general-equilibrium effects to compress the wage distribution. Wage compression reduces income-tax distortions of labor supply, thereby raising welfare. In the calibrated model, the optimal robot tax for the US is positive and generates small welfare gains. As the price of robots falls, inequality rises but the robot tax and its welfare impact become negligible.

 [Thuemmel-Optimal Taxation of Robots-587.pdf](#)

**1:37pm - 2:00pm**

**The Dynamics Of Earnings, Labor Market Transitions, And Earnings Inequality In Sweden**

**Johan Erik Holmberg**

Umeå University, Sweden

In this paper I build a life cycle earning dynamics model including endogenous employment and job changes and estimate it with indirect inference using Swedish register data. Using this model I provide some insight on the sources of life cycle earning inequality and their relative importance and the role of education, accumulation of general and firm specific experience, unobserved heterogeneity and job changes for career development, employment and the accumulation of pension entitlements. The results show that unemployment has large effects on life cycle earnings and employment status, and that general accumulation of experience is more important than firm specific experience in determining labor market outcomes in Sweden.

 [Holmberg-The Dynamics Of Earnings, Labor Market Transitions, And Earnings Inequality-360.pdf](#)

**2:00pm - 2:22pm**

**The Impact of Aging and Automation on the Macroeconomy and Inequality**

**Nikolai Stähler**

Deutsche Bundesbank, Germany

We build a life-cycle model in which a representative firm produces a final good using routine and non-routine labor and capital. Routine labor can be substituted for by automation capital (e.g. robots). We show that both, population aging and higher robot productivity, foster the increased use of robotics. Population aging decreases and technological progress in automation technologies increases output per capita in the long run. Inequality in labor income, wealth and consumption increases. Hence, although expected advances in automation technologies are able to mitigate or circumvent output losses in the aggregate, this comes at the cost of increased inequality. Our analysis thus suggests that reaping the benefits from technological progress will require promoting inclusion and participation of those who are likely to lose. Our model seems suitable to serve as a laboratory for analyzing upcoming policy suggestions in this direction.

 [Stähler-The Impact of Aging and Automation on the Macroeconomy and Inequality-388.pdf](#)

**2:22pm - 2:45pm**

**It Takes Two To Tango: Labor Responses To An Income Tax Holiday In Argentina**

**Dario Tortarolo<sup>1</sup>, Guillermo Cruces<sup>2</sup>, Victoria Castillo<sup>3</sup>**

<sup>1</sup>University of California, Berkeley; <sup>2</sup>University of Nottingham; <sup>3</sup>Ministry of Labor

We exploit a large and quasi-randomized 2.5 year-long income tax holiday to identify intertemporal labor responses of high-wage earners to net wage changes. In August 2013, the Argentine government exempted a group of wage earners from the income tax and left the remaining group taxed until February 2016, when the holiday was repealed. Eligibility was based on whether past wage earnings were below a fixed threshold, creating a discontinuity that treated workers who coexist in the same labor market with sharply different marginal and average tax rates—0% for workers below the threshold. Using rich administrative data and an RDD approach, we estimate a precise and very small wage earnings elasticity of 0.02 to this large, salient, and temporary income tax change. We show evidence that low responses might be driven by labor demand constraints and rigidities, and that employer-employee cooperation is required for wage earners to respond to tax changes.

 [Tortarolo-It Takes Two To Tango-422.pdf](#)

**1:15pm - 2:45pm**

**H05: Optimal Taxation I**

**1:15pm - 1:37pm**

**Piecewise Linear Income Taxation Revisited**

**Robin Boadway<sup>1</sup>, Katherine Cuff<sup>2</sup>**

<sup>1</sup>Queen's University, Canada; <sup>2</sup>McMaster University, Canada

We analyze the optimal two-bracket piecewise linear income tax system focusing on establishing conditions determining whether the marginal tax rate is higher in the top tax bracket. We consider both the extensive- and intensive-margin labour supply cases, and both maximin and utilitarian social welfare functions. A crucial determinant is the relative size of the elasticities of labour supply (either participation or quantity of work) for higher- versus lower-wage workers.

 [Boadway-Piecewise Linear Income Taxation Revisited-522.pdf](#)

	<p><b>1:37pm - 2:00pm</b>  <b>Optimal Taxation and the Equal-Sacrifice Social Welfare Function</b>  <b>Kristoffer Berg, Paolo Giovanni Piacquadio</b>  University of Oslo, Norway  We propose and axiomatically characterize a family of welfare criteria that prioritize individuals making larger sacrifices. By combining efficiency with a concern for equality of sacrifice, our criteria avoid serious shortcomings of utilitarianism. We illustrate our results within the Mirrleesian optimal taxation framework. Our simulated equal-sacrifice optimal tax schedule for the US has marginal tax rates in line with the US tax system and about 20 percentage points lower than the utilitarian recommendation.   <a href="#">Berg-Optimal Taxation and the Equal-Sacrifice Social Welfare Function-367.pdf</a></p>
	<p><b>2:00pm - 2:22pm</b>  <b>Non-linear Taxation with Monopsony Power</b>  <b>Albert Jan Hummel</b>  University of Amsterdam  This paper studies the implications of monopsony power for optimal income taxation and welfare. Firms observe workers' abilities while the government does not and monopsony power determines what share of the labor market surplus is translated into pure economic profits. Monopsony power makes labor income taxes less (more) effective in redistributing labor (capital) income, because it increases the tax incidence that falls on firms. Monopsony power enables the government to exploit the informational advantage of firms, but at the expense of exacerbating inequality in capital income. I illustrate these findings by calibrating the model to the US economy.   <a href="#">Hummel-Non-linear Taxation with Monopsony Power-561.pdf</a></p>
<p><b>1:15pm - 2:45pm</b></p>	<p><b>H06: Housing Markets</b></p> <p><b>1:15pm - 1:37pm</b>  <b>Restrictions of Short-Term Rentals and the Housing Market: Evidence from Quasi-Experimental Variation in Germany</b>  <b>Michael Jähn<sup>1,2</sup>, Patrick Gauß<sup>1,2</sup>, Nadine Riedel<sup>1</sup>, Andrea Schneider<sup>3</sup></b>  <sup>1</sup>Westfälische Wilhelms-Universität Münster, Germany; <sup>2</sup>Ruhr Graduate School in Economics; <sup>3</sup>Jönköping International Business School  The increase in short-term rentals and the simultaneous lack of affordable housing have compelled several German cities to implement restrictions on short-term rentals (HSOs). Based on daily booking data from the largest platform provider Airbnb, we use synthetic control methods and spatial regression discontinuity designs to estimate the effects of HSOs on the supply of short-term rentals in Berlin and Munich. We find very limited reduction in short-term rentals for commercial platform users. In addition, we estimate effects on long-term rents and housing prices. We do, however, not find any economically significant effects.   <a href="#">Jähn-Restrictions of Short-Term Rentals and the Housing Market-329.pdf</a></p> <p><b>1:37pm - 2:00pm</b>  <b>How Do School District Boundary Changes and New School Proposals Affect Housing Prices?</b>  <b>Xiaozhou Ding, Christopher Bollinger, Michael Clark, William Hoyt</b>  University of Kentucky, United States of America  In the past fifty years, a voluminous literature estimating the value of schools through capitalization in home prices has emerged. Prior research has identified capitalized value using various approaches including discontinuities caused by boundaries. We use changes in school boundaries and the proposal of a new school. Our findings from redistricting in the Fayette county school district (KY) show that prices for homes redistricted from a lower-performing (based on test scores) school into the proposed school catchment area increase by six percent. Houses redistricted from higher-performing schools to lower-performing schools decrease in value by three to five percent. We estimate that homes in the redistricted areas increased by \$108 million relative to homes that were not redistricted.   <a href="#">Ding-How Do School District Boundary Changes and New School Proposals Affect Housing Prices-299.pdf</a></p> <p><b>2:00pm - 2:22pm</b>  <b>Public Good Provision and Local Employment - Evidence from Grammar School Closures in East Germany</b>  <b>Martin Simmler<sup>1</sup>, Ronny Freier<sup>2</sup>, Christian Wittrock<sup>3</sup></b>  <sup>1</sup>Oxford University; <sup>2</sup>DIW Berlin and Technische Hochschule Wildau; <sup>3</sup>Ruhr Universitaet Bochum  This paper assesses the impact of public good provision for the spatial distribution of employment as predicted by a local labor market model that allows for commuting. Using local grammar school closures in East Germany after 2000 in a difference-in-differences estimation framework coupled with an entropy balancing strategy, we find that the school closures triggered a decline in the number of (employed) residents by 11%. The number of local employees, in contrast, decreases by just 6% as in-commuters do not respond to the school closures. Moreover, we find - as predicted - that the school closures reduce house prices and that the share of land used for housing declines, albeit only to a small extent.   <a href="#">Simmler-Public Good Provision and Local Employment-459.pdf</a></p> <p><b>2:22pm - 2:45pm</b>  <b>Should We Ban AirBnB? Short-Term Rental Regulations and Housing Prices</b>  <b>João Pereira dos Santos, Susana Peralta, Duarte Gonçalves</b>  Nova School of Business and Economics  We analyze the impact of short-term rental on housing prices through a quasinaural experiment that exploits a ban imposed in 2018 by the municipality of Lisbon in several of its neighborhoods. We rely on administrative data on the registries of short-term rental housing units and neighborhood housing prices and sold quantities in Lisbon and Porto to employ i) difference-in differences models and ii) event-study designs. Our findings document a sizeable peak in new registries during the period between the announcement of the ban and its implementation, suggesting that agents were able to avoid the restriction. We also show that the ban fell short on its claims and validate the theory that buyers in the housing market value the option to participate in the short-term rental market upon purchase.   <a href="#">Pereira dos Santos-Should We Ban AirBnB Short-Term Rental Regulations and Housing Prices-246.pdf</a></p>
<p><b>1:15pm - 2:45pm</b></p>	<p><b>H07: Migration II</b></p> <p><b>1:15pm - 1:37pm</b>  <b>Information On Monetary Benefits As An Incentive To Learn The Destination Language</b>  <b>Fabian Koenings, Chun Wai Ho, Tina Haussen</b>  Friedrich Schiller University, Germany  We investigate how information on the monetary benefits from being proficient in the destination language affects the intention to learn this language. For this purpose, we conduct a randomized survey experiment among international students. The results show that treatment influences the willingness to participate in a language course but, surprisingly, the effect goes in opposite directions across groups. While those with an already medium or higher proficiency level of the destination language are encouraged to participate, students with no or basic proficiency of</p>

the destination language decrease their participation. The effect sizes range from a 7 percentage points decrease in the probability to participate in a German course for respondents with a basic level of German proficiency to an increase of more than 17 percentage points for respondents with very good German.

 [Koenings-Information On Monetary Benefits As An Incentive To Learn The Destination Language-559.pdf](#)

**1:37pm - 2:00pm**

#### **Migration Aspirations and Intentions**

**Matthias Huber<sup>1</sup>, Nikolka Till<sup>2</sup>, Poutvaara Panu<sup>2,3</sup>, Ann-Marie Sommerfeld<sup>4</sup>, Silke Uebelmesser<sup>1,3</sup>**

<sup>1</sup>University of Jena, Germany; <sup>2</sup>Ifo Institute at the University of Munich; <sup>3</sup>CESifo; <sup>4</sup>University of Goettingen, Germany  
This study aims at contributing to the understanding of how migration decisions are made. We base our analysis on two novel datasets. First, we conducted a survey among university students in different countries. Second, we conducted a survey among language course participants at 14 Goethe Institutes worldwide, a self-selected subset of the population, which is likely further in the process of considering migration than the overall population. We categorize migration intentions into considerations and preparations. This allows to identify different degrees of intention which are closer to migration behavior. Using binary logit regressions, we identify determinants of migration intentions on the individual and the country level. While intentions refer to the actual situation, aspirations are desires in case of an 'ideal situation'. We have a closer look at individuals whose aspirations and intention do not point in the same direction - thus identifying migration barriers and drivers.

 [Huber-Migration Aspirations and Intentions-575.pdf](#)

**2:00pm - 2:22pm**

#### **Do Immigrants Affect Crime? Evidence From Panel Data For Germany**

**Silke Uebelmesser<sup>1,2</sup>, Rita Maghularia<sup>3</sup>**

<sup>1</sup>Friedrich-Schiller-University Jena; <sup>2</sup>CESifo; <sup>3</sup>Technical University Dresden, Germany

The paper analyses the empirical relationship between immigrants and crime using panel data for 391 German administrative districts between 2003 and 2016. Employing different standard Panel estimation methods, we show that there is no positive association between the immigrant rate and the crime rate. We assess the robustness of this result by considering the heterogeneity of Immigrant groups with respect to gender, age, country of origin and – if applicable – refugee status, and study naturalized immigrants. We also take into account possible spillover effects of immigrants on criminal activities by Germans, omitted variables and spatial correlation. Furthermore, taking advantage of the panel-structure of the data set we employ an instrumental variable approach that deals with the possibly endogenous allocation of immigrants and allows for causal interpretation of the estimates. There is no evidence that immigrants increase crime.

 [Uebelmesser-Do Immigrants Affect Crime Evidence From Panel Data-154.pdf](#)

**2:22pm - 2:45pm**

#### **The Welfare Magnet Hypothesis: Evidence From an Immigrant Welfare Scheme in Denmark**

**Ole Agersnap, Amalie Sofie Jensen, Henrik Jacobsen Kleven**

Princeton University, United States of America

We study the effects of welfare generosity on international migration using a series of large changes in welfare benefits for immigrants in Denmark. The first change, implemented in 2002, lowered benefits for immigrants from outside the EU by about 50%, with no changes for natives or immigrants from inside the EU. The policy was later repealed and re-introduced. The differential treatment of immigrants from inside and outside the EU, and of different types of non-EU immigrants, allows for a quasi-experimental research design. We find sizeable effects: The benefit reduction reduced the net flow of immigrants by about 5,000 people per year, or 3.7 percent of the stock of treated immigrants, and the subsequent repeal of the policy reversed the effect almost exactly. Our study provides some of the first causal evidence on the widely debated "welfare magnet" hypothesis.

 [Agersnap-The Welfare Magnet Hypothesis-598.pdf](#)

**3:00pm - 4:15pm**

#### **Plenary III: Keynote III: Rick van der Ploeg (University of Oxford), "Climate Policy, Natural Resources and Public Finance Post Covid-19"**

Session Chair: **Marco Runkel**, University of Technology Berlin

Date: Friday, 21/Aug/2020

8:00am - 9:30am	<b>J01: Tax Evasion II</b>
8:00am - 8:22am	<p><b>Firms And Tax Audits – Evidence From Risk Based Tax Audits In Finland</b></p> <p><b>Annika Nivala<sup>1,2</sup>, Jarkko Harju<sup>2</sup>, Kaisa Kotakorpi<sup>3,2,4</sup>, Tuomas Matikka<sup>2</sup></b></p> <p><sup>1</sup>University of Turku, Finland; <sup>2</sup>VATT Institute for Economic Research; <sup>3</sup>Tampere University; <sup>4</sup>CESifo</p> <p>This paper studies firm responses to tax audits using full population data on operational tax audits and tax returns in Finland. Studying risk based audits can provide important evidence for tax enforcement policy, as risk based audits are a central tool in firm tax enforcement. We first describe the type and behavior of the audited firms. Large firms, limited companies and some industries are more likely to be audited, and the audited firms first grow faster but start shrinking in size before the audit compared to firms that are not audited. We use matching to account for observable differences in selection into getting audited and show that the matched firms have similar trend prior to the audit. We find that the audited firms permanently increase reported profits after getting audited. This seems to be due to an increase in reported turnover rather than a decrease in costs.</p> <p> <a href="#">Nivala-Firms And Tax Audits – Evidence From Risk Based Tax Audits-284.pdf</a></p>
8:22am - 8:45am	<p><b>Estimating Tax Noncompliance Among Self-Employed With Evidence From Pleasure Boat Registers</b></p> <p><b>Per Engström<sup>1</sup>, Johannes Hagen<sup>2</sup>, Edvard Johansson<sup>3</sup></b></p> <p><sup>1</sup>Uppsala University, Uppsala; <sup>2</sup>Jönköping University, Sweden; <sup>3</sup>Abo Akademi University, Finland</p> <p>In this paper, we improve upon the Pissarides-Weber (PW) method for estimating tax evasion among self-employed by utilizing unique register-based consumption measures from the Swedish and Finnish mandatory registers for pleasure boats. Our contributions are twofold: i) The PW method crucially relies on the assumption that the intrinsic consumption preferences are the same for self-employed and wage earner households. Thanks to our rich data we are able to directly test this assumption by contrasting the Engle curves between wage earner households and households that will become self-employed in the future. We find no economically significant differences between the two groups prior to becoming self-employed. This lends clear support to the assumption of similar intrinsic preferences between the two groups. ii) The large sample size that comes with register-based consumption measures allows us to challenge the standard functional form assumptions in previous applications. The estimated sizes of income underreporting in absolute \$ amount is almost constant over reported income levels, while previous studies have assumed that the underreporting is proportional to income.</p> <p> <a href="#">Engström-Estimating Tax Noncompliance Among Self-Employed With Evidence-510.pdf</a></p>
8:45am - 9:07am	<p><b>Gender differences in tax evasion - Evidence from Norwegian micro data</b></p> <p><b>Julie Brun Bjørkheim<sup>1</sup>, Odd Erik Nygård<sup>2</sup></b></p> <p><sup>1</sup>Norwegian University of Life Sciences; <sup>2</sup>Statistics Norway</p> <p>Who evades taxes? The current paper utilizes rich register data to analyze tax evasion among the self-employed in Norway with an aim to quantify gender differences in income underreporting. We use the expenditure approach to assess tax evasion, and in particular concerning tax-deductible charitable contributions, as reported on the tax return. This method uses data on expenditures to predict true income for the self-employed and measures evasion as the difference between predicted income and tax-reported income. We find that the self-employed on average underreport 13% of true income. However, the results for the sub-sample of single individuals show an unexpected pattern, and this is most evident for single male self-employed individuals. Thus, we are concerned with interpreting the coefficient purely as income tax evasion, but that it also reflects differences in preference for charitable giving between the employed and self-employed.</p> <p> <a href="#">Brun Bjørkheim-Gender differences in tax evasion-523.pdf</a></p>
9:07am - 9:30am	<p><b>Dividend Withholding Tax Avoidance Across Europe: the Revenue Loss Associated with Loopholes</b></p> <p><b>Evelna Gavrilova-Zoutman, Floris Tobias Zoutman</b></p> <p>NHH Norwegian School of Economics, Norway</p> <p>We study the effect of dividend-withholding tax (DWT) arbitrage on tax revenue for Scandinavian countries. For identification we rely on a 2016 reform in Denmark, that effectively outlawed DWT arbitrage. We employ an event-study analysis in which we compare stock lending on i.) normal trading days, to trading days around the ex-dividend date, and ii.) trading days before the reform in Denmark, to trading days after the reform in Denmark. We find that, prior to the Danish reform stock lending spikes by about 1.36 standard deviations on ex-dividends days, relative to standard trading days with no significant difference between countries. After the reform, the spike in Sweden and Norway persists, but it drops by 73 percent in Denmark. Our analysis is consistent with an overall tax-revenue loss associated with DWT arbitrage of X (PM). We illustrate our findings through a short case study on Danske Bank.</p> <p> <a href="#">Gavrilova-Zoutman-Dividend Withholding Tax Avoidance Across Europe-366.pdf</a></p>
8:00am - 9:30am	<b>J02: Environmental Regulation I</b>
8:00am - 8:22am	<p><b>Product Liability When Cumulative Harm Is Incurred By Both Consumers And Third Parties</b></p> <p><b>Tim Friehe<sup>1</sup>, Eric Langlais<sup>2,3</sup>, Elisabeth Schulte<sup>1</sup></b></p> <p><sup>1</sup>University of Marburg; <sup>2</sup>EconomiX; <sup>3</sup>University of Paris, Nanterre</p> <p>Traditional law and economics analyses of product liability assume that expected harm is proportional to usage. This paper builds on Daughety and Reinganum (2013a, 2014) by assuming that harm is increasing and convex in usage. In contrast to previous contributions, we analyze liability rules when not only consumers but also third parties incur harm. We show that the social ranking of liability rules previously established for the case in which only consumers suffer harm (strict liability dominates no liability and negligence) may be reversed if third party harm is sufficiently important.</p> <p> <a href="#">Friehe-Product Liability When Cumulative Harm Is Incurred-128.pdf</a></p>
8:22am - 8:45am	<p><b>The Performance Evaluation of State Grassland Ecological Rewards</b></p> <p><b>Fengqin Han, Dan Li</b></p> <p>Chinese Academy of Fiscal Science, People's Republic of China</p> <p>Since 2011, the State Grassland Ecological Rewards(GER) has implemented in 13 provinces (regions) in China. This policy provided subsidies to pastoralists, aimed at reducing livestock number on grassland and increasing income of households. Taking Nileke County of Xinjiang, China as a case study, this research evaluated the performance of GER from ecological, economic and social aspects. The results showed that after 2011, livestock number in pastoral area decreased. But the livestock in agricultural area showed large growth. Farmers pay herders</p>

to graze their livestock on the herder's pasture. Widespread transactions between farmers and herders led to overgrazing on pasture and grassland degradation. GER also had no significant contribution on improving household income and encouraging livelihood transition. Based on the findings, we put forwards suggestions from three aspects: improving the design of the GER policy, establishing performance evaluation system, and strengthening the supervision and punishment of grassland overgrazing.

 [Han-The Performance Evaluation of State Grassland Ecological Rewards-661.pdf](#)

**8:45am - 9:07am**

**Pay As You Throw: Evidence On The Incentive To Recycle**

**Leonzio Rizzo<sup>1</sup>, Riccardo Secomandi<sup>2</sup>**

<sup>1</sup>Università di Ferrara & IEB, Italy; <sup>2</sup>Università di Ferrara & Università di Parma

Pay as you throw system implies that people pay according to the mixed waste they produce. In particular in the municipality of Ferrara users pay a fee until a given number of produced bags, after that number they will be charged for every additional bag. We test the impact of the introduction in July 2017 of the pay as you throw system on waste recycling by using a synthetic control method, utilizing as donor pool of 36 municipalities of Emilia Romagna served by the multi-utility Hera. We find that the introduction of the new tariff increased the waste recycling of Ferrara with respect to its synthetic. In fact, after one year of the implementation of the new tariff Ferrara has increased his percentage waste recycling on total waste by 40% with respect to what its synthetic counterfactual has done.

 [Rizzo-Pay As You Throw-417.pdf](#)

**9:07am - 9:30am**

**Technology Beats Capital - Sharing the Carbon Price Burden in Federal Europe**

**Christina Rooffs<sup>1,2</sup>, Beatriz Gaitan<sup>1</sup>, Ottmar Edenhofer<sup>1,2,3</sup>, Kai Lessmann<sup>1</sup>**

<sup>1</sup>Potsdam Institute for Climate Impact Research, Germany; <sup>2</sup>Technical University of Berlin, Germany; <sup>3</sup>Potsdam Institute for Climate Impact Research, Germany, Technical University of Berlin, Germany, Mercator Research Institute on Global Commons and Climate Change, Berlin, Germany

Passing federal environmental policy reform is a challenge as the approval of interest groups such as consumers and state-level governments is often a prerequisite. Among others, the burden sharing's progressivity has a large impact on reform approval. We investigate how carbon tax payments by states to a federal authority are influenced by differences in technological emission intensity and wealth and show how they can turn out to be at the expense of poor states. We show that a uniform federal carbon tax that is endorsed by all states with equal per capita transfers can theoretically put a higher burden on poorer states than richer states. The opposite applies for transfers based on historical emissions (sovereignty transfers) which reduce the burden of emission-intensive states. We test our results numerically in a general equilibrium model with a vertical federalism governance structure calibrated to the European Union.

 [Rooffs-Technology Beats Capital-450.pdf](#)

**8:00am - 9:30am**

**J03: Populism and Extremism**

**8:00am - 8:22am**

**Right-Wing Populists in Power**

**Luisa Doerr<sup>1</sup>, Niklas Potrafke<sup>2</sup>, Felix Roesel<sup>3</sup>**

<sup>1</sup>ifo Institute, University of Munich; <sup>2</sup>ifo Institute; <sup>3</sup>ifo Institute, Dresden branch

We investigate which economic and fiscal policies right-wing populists implement in office. Right-wing populists use a strong anti-establishment rhetoric and propose restrictions to immigration. Regarding economic policy, right-wing populists are stuck between the devil and the deep blue sea because they aim at catering a wide range of voters. Our sample includes mayors of the Austrian FPÖ which are quite representative for other populist movements such as the French FN or the Italian Lega. Austrian mayors are powerful players in local politics, described as "village pashas" and deciding on, for example, staff and local public goods. We exploit narrow victories and the defeats of right-wing populists in RDD regressions. The results do not suggest that right-wing populist mayors implement different economic policies than mayors of established parties, but budget transparency decreases. We conclude that right-wing populists rely on a strong rhetoric, but implement quite conventional economic policies, which they seek to hide.

 [Doerr-Right-Wing Populists in Power-403.pdf](#)

**8:22am - 8:45am**

**Between Fearmongers and Samaritans: How Information Provision Affects Attitudes toward the Right of Asylum**

**Bernd Hayo<sup>1</sup>, Florian Neumeier<sup>2</sup>**

<sup>1</sup>University of Marburg, Germany; <sup>2</sup>ifo Institute Munich, Germany

We utilise information experiments embedded in a representative population survey to elicit the German's attitude toward the right of asylum. For the information experiment, we randomly assign the interviewees to different groups and 'treat' each group with different information about the asylum-seekers that came to Germany in 2015 and 2016. The treatments involve information about (i) the total number of asylum-seekers, (ii) the fiscal costs as well as (iii) the potential long-run economic benefits associated with the intake of refugees, (iv) the share of Muslim asylum-seekers, and (v) the share of war refugees. Our findings indicate that providing information about the fiscal costs associated with the intake of refugees as well as information about the share of Muslim refugees significantly raise opposition against the right of asylum.

 [Hayo-Between Fearmongers and Samaritans-212.pdf](#)

**8:45am - 9:07am**

**Globalization, Impatience, and Populist Voting**

**Thomas Aronsson<sup>1</sup>, Clemens Hetschko<sup>2</sup>, Ronnie Schöb<sup>3</sup>**

<sup>1</sup>University of Umea, Sweden; <sup>2</sup>University of Leeds, United Kingdom; <sup>3</sup>Freie Universität Berlin, Germany

Societies see growing support for politicians who advocate an end to globalization. Our theory links impatience in the form of present-biased preferences to voter's appraisal of a positive income shock due to globalization that brings about short-run costs and delayed gains. We show that impatient individuals may refuse further globalization, if they are subject to borrowing constraints. Using German data, we confirm that impatient people support right-wing populist parties. Furthermore, the effect is amplified in people who may be limited in their ability to borrow. A government that seeks to ensure support for further globalization may use up-front redistribution to resolve this issue.

 [Aronsson-Globalization, Impatience, and Populist Voting-336.pdf](#)

**9:07am - 9:30am**

**Online and Offline Determinants of Large Scale Protests: Insights from the Yellow Vests Movement**

**Pierre Boyer<sup>1</sup>, Thomas DELEMOTTE<sup>2</sup>, Germain Gauthier<sup>2</sup>, Vincent Rollet<sup>2</sup>, Benoit Schmutz<sup>1</sup>**

<sup>1</sup>Ecole Polytechnique, France; <sup>2</sup>CREST

This paper studies the Gilets jaunes movement, large scale protests which emerged in France in 2018. The movement presents two specific features: (i) demonstrations were highly decentralized on the French territory; (ii)

8:00am - 9:30am	<p>social media played a major role in the diffusion and organization of protests. To study both of these dimensions, this paper brings together unique data on the online activities of the yellow vests (Facebook interactions and online petitioning), their physical demonstrations (blockades on roundabouts), and administrative data at the regional level. We show that low commitment online activities - such as signing the petition against taxes on gasoline prior to the movement's formation - signal a latent potential for mobilization. Finally, to further investigate the movement's motivations and concerns, we analyze a large corpus of 21 million Facebook interactions related to the yellow vests.</p> <p> <a href="#">Boyer-Online and Offline Determinants of Large Scale Protests-250.pdf</a></p>
8:00am - 9:30am	<p><b>J04: Labor Market Policy I</b></p> <p><b>8:00am - 8:22am</b>  <b>Minimum Wage, Market Imperfection, and Production Efficiency: Panel Event Study in Vietnam</b>  <b><u>Manabu Nose</u></b>  The University of Tokyo, Japan  Industries in developing countries involve a host of small businesses which compete with foreign or state-owned firms. This paper examines how an unexpected spike of minimum wages disproportionately affected employment and productivity of domestic and foreign firms under the mixed market structure using Vietnam's enterprise census. While foreign firms were somewhat shielded from the policy shock, production of domestic firms has become smaller and informal. A panel event study model finds that small domestic firms constrained by the minimum wage regulation significantly reduced employment (-14%), profit margins (-1 percentage point) and TFP (-2%) over three years. The narrow margins of adjustments in capital-labor mix explains the productivity loss. Moreover, a triple-difference regression indicates that small firms faced significantly large negative minimum wage effect when foreign or state-owned firms hold strong price setting power in the same market.</p> <p> <a href="#">Nose-Minimum Wage, Market Imperfection, and Production Efficiency-562.pdf</a></p> <hr/> <p><b>8:22am - 8:45am</b>  <b>Employment-maximizing minimum wages</b>  <b><u>Tobias Seidel</u><sup>1</sup>, <u>Gabriel Ahlfeldt</u><sup>2</sup>, <u>Duncan Roth</u><sup>3</sup></b>  <sup>1</sup>University of Duisburg-Essen, Germany; <sup>2</sup>London School of Economics; <sup>3</sup>IAB  Motivated by a reduced-form evaluation of the impacts of the German nationally uniform minimum wage on labour, goods and housing markets, we develop a simple model that nests a monopsonistic labour market with heterogeneous firms. The model predicts that the employment effect of a minimum wage is a bell-shaped function of the minimum wage level. Consistent with the model prediction, we find the largest positive employment effects in regions where the minimum wage corresponds to 48% of the pre-policy median wage and negative employment effects in regions where the minimum exceeds 80% of the pre-policy median wage. Our estimates provide first bounds for evidence-based minimum wages that avoid detrimental employment effects.</p> <p> <a href="#">Seidel-Employment-maximizing minimum wages-227.pdf</a></p> <hr/> <p><b>8:45am - 9:07am</b>  <b>Adjustment Costs and Incentives to Work: Evidence from a Disability Insurance Program</b>  <b><u>Arezou Zaresani</u></b>  University of Melbourne, Australia  How important is adjustment cost for individuals who face a change in work incentives induced by a policy change? I provide the first estimate of adjustment cost in the context of a Disability Insurance (DI) program by exploiting a policy change that increased work incentives by increasing the exemption threshold. I use bunching at the thresholds to estimate adjustment cost and earnings elasticity. The estimates of adjustment cost are quite sizeable and heterogeneous. The estimates of earnings elasticity, from both static and dynamic models, are larger than the elasticity estimated with no adjustment cost, suggesting that adjustment cost attenuates the responses to work incentives. Policies designed to increase labor supply will work if the work incentives are large enough to offset the adjustment cost. Accounting for adjustment cost then might explain the disparate findings on the effects of an increase in work incentives on the labor supply of beneficiaries of DI programs.</p> <p> <a href="#">Zaresani-Adjustment Costs and Incentives to Work-496.pdf</a></p> <hr/> <p><b>9:07am - 9:30am</b>  <b>The Effects of Working Hours Constraints on Work Hours and Labor Market Participation</b>  <b><u>Kai-Uwe Mueller</u><sup>1</sup>, <u>Sascha Drahs</u><sup>2</sup></b>  <sup>1</sup>DIW Berlin; <sup>2</sup>German Pension Insurance  Hours constraints play an important role in the determination of actual hours worked by employees. Especially during critical life phases with pressure on employees' time budgets, workers may want to change from full- to part-time work. Using administrative employment records we exploit a reform that introduced a legal right to work part-time for employees in large firms in Germany. We estimate causal effects of the legal right to work part-time on work hours and subsequent employment probabilities. We find only moderate positive effects on the transition rate to work part-time for women employed in firms with more than 200 employees. However, we identify considerable effect heterogeneity with respect to age: For full-time employees above the age of 50, we find that the introduction of the legal right to work part-time increased the transition rate from full-time to part-time work by 1-2.5 percentage points (or 25 to 50%).</p> <p> <a href="#">Mueller-The Effects of Working Hours Constraints on Work Hours and Labor Market Participation-651.pdf</a></p>
8:00am - 9:30am	<p><b>J05: Optimal Taxation II</b></p> <p><b>8:00am - 8:22am</b>  <b>Globalization, Income Risk And Redistributive Taxation: The Role Of Incentive Contracts</b>  <b><u>Andreas Haufler</u><sup>1</sup>, <u>Carlo Perroni</u><sup>2</sup></b>  <sup>1</sup>LMU Munich, Germany; <sup>2</sup>University of Warwick, UK  We study optimal redistributive taxation in an economy where performance-based compensation differentials are needed to incentivize effort. A linear progressive income tax improves post-tax equality but reduces the return to effort and thus undermines incentive contracts. Market integration can increase the spread of project returns and make contract choices more responsive to changes in the level of taxation, resulting in a lower optimum income tax rate under a revenue-maximization objective. A uniform distribution of ability types is sufficient for this result to generalize to the case where the tax planner pursues a utilitarian objective. Our analysis offers an explanation for why taxes have become less progressive in many countries while income inequality has risen. Distinctively, our results obtain in an environment where individuals are inter-jurisdictionally immobile, and thus complement existing literature that derives falling rates of taxation from relocation responses.</p> <p> <a href="#">Haufler-Globalization, Income Risk And Redistributive Taxation-258.pdf</a></p> <hr/> <p><b>8:22am - 8:45am</b>  <b>Pareto-Improving Tax Reforms</b>  <b><u>Felix J. Bierbrauer</u><sup>1</sup>, <u>Pierre C. Boyer</u><sup>2</sup>, <u>Emanuel Hansen</u><sup>1</sup></b>  <sup>1</sup>Center for Macroeconomic Research, University of Cologne, Germany; <sup>2</sup>CREST, Ecole Polytechnique, France  This paper presents necessary and sufficient conditions for the existence of Pareto-improving tax reforms. The</p>

conditions can be expressed as sufficient statistics and have a wide range of potential applications in public finance. We discuss one such application in detail: the introduction of the Earned Income Tax Credit (EITC) in the US. We find that the introduction of the EITC can be viewed as a response to an inefficiency in the tax and transfer system prevailing at the time. This adds a new perspective to the literature on why the EITC is a good idea, emphasizing Pareto improvements rather than equity-efficiency trade-offs.

 [Bierbrauer-Pareto-Improving Tax Reforms-433.pdf](#)

**8:45am - 9:07am**

### **Correct Me if You Can - Optimal Non-Linear Taxation of Externalities**

**Andreas Gerster<sup>1</sup>, Michael Kramm<sup>2</sup>**

<sup>1</sup>University of Mannheim, Germany; <sup>2</sup>Technical University of Dortmund, Germany

A growing literature has shown that behavioral biases influence consumer choices. So-called externalities are ubiquitous in many settings, including energy efficiency investments and the consumption of sin goods, such as cigarettes and sugar. In this paper, we use a mechanism design approach to characterize the optimal non-linear tax (or subsidy) for correcting behaviorally biased consumers. We demonstrate that market choices are informative about consumers' bias, which can be exploited for targeting via a non-linear tax schedule. We investigate the properties of optimal externality taxes and find that they are typically convex. Furthermore, we show that the implementability of optimal externality taxes is ensured as long as there is a minimum alignment of preferences among the designer and the consumers. We derive sufficient statistics for approximating the optimal tax schedule and apply our findings by determining the optimal non-linear subsidy for energy efficiency in the light bulb market.

 [Gerster-Correct Me if You Can-344.pdf](#)

**8:00am - 9:30am**

### **J06: Sin Regulation**

**8:00am - 8:22am**

### **Taxing Sugar-Sweetened Beverages - Tax Design, Substitution Patterns, and Product Variety**

**Laura Birg**

University of Göttingen, Germany

This paper studies the effect of a sugar tax on prices, quantities, and product reformulation in a market for beverages, where consumers may choose between vertically and horizontally beverages. A tax on the sugar sweetened soft drink decreases the price of the soft drink and increases prices for the diet soft drink and the "non-soft" drink, shifts market shares from the soft drink to the diet soft drink and the "non-soft" drink, and increases the sugar content of the soft drink. A tax on soft drinks decreases prices of all drinks, shifts market shares from the soft drink to the diet soft drink and the "non-soft" drink, and increases the sugar content of the soft drink.

 [Birg-Taxing Sugar-Sweetened Beverages-677.pdf](#)

**8:22am - 8:45am**

### **Tax Reform, Unhealthy Commodities and Endogenous Health**

**Jiunn Wang<sup>1</sup>, Laura Marsiliani<sup>2</sup>, Thomas Renstrom<sup>2</sup>**

<sup>1</sup>University of Exeter, United Kingdom; <sup>2</sup>Durham University Business School, United Kingdom

We develop a dynamic general equilibrium model with endogenous health to explore how tax reforms with taxes on unhealthy commodities impact consumer behaviour and welfare. Analytical results suggest that taxes on unhealthy commodities may fail to improve health because the beneficial impacts of reducing unhealthy consumption could be offset by a simultaneous decrease in health investment. Our simulations show that, when coupled with tax reforms where income taxes are adjusted, taxes on unhealthy commodities can improve health and welfare more effectively. Our analysis may inform policy making decisions on taxation of unhealthy commodities when a government can adjust pre-existing taxes.

 [Wang-Tax Reform, Unhealthy Commodities and Endogenous Health-665.pdf](#)

**8:45am - 9:07am**

### **The Case for Food Subsidies**

**Albert Jan Hummel<sup>1</sup>, Vinzenz Ziesemer<sup>2</sup>**

<sup>1</sup>University of Amsterdam; <sup>2</sup>Erasmus University Rotterdam

The Atkinson-Stiglitz theorem on uniform commodity taxes breaks down if prices are endogenous. This paper investigates the implications for optimal food subsidies in China. To do so, we build a general equilibrium model with food and non-food production, and two types of labor: high-skilled and low-skilled. The government optimizes a linear tax on labor income and a proportional tax or subsidy on food consumption. Low-skilled workers have a comparative advantage in the production of food. Food subsidies raise the relative demand for food, which reduces the skill premium and indirectly redistributes income from high-skilled to low-skilled workers.

We calibrate our model to match key moments from the Chinese economy, including the share of low-skilled and high-skilled workers in food and non-food production and spending patterns that we obtain from micro-level survey data. Our results indicate that optimal food subsidies are close to the levels currently observed in the data.

 [Hummel-The Case for Food Subsidies-560.pdf](#)

**9:45am - 11:15am**

### **K01: Tax Evasion III**

**9:45am - 10:07am**

### **Tax Enforcement with Somewhat Honest Taxpayers**

**Yeliz Kacamak**

Bogazici University, Turkey

Standard compliance theory assumes that individuals evade to the extent it benefits them monetarily. However, a growing empirical literature suggests that many underlying cognitive considerations may play a non-trivial role when individuals make decisions.

This study aims to analyze whether optimal audit rules that are the result of standard models survive a model with agents that are "somewhat honest" due to an intrinsic characteristic. I show the canonical cut-off audit rule where above a certain threshold no reported income is audited (introduced by Reinganum and Wilde (1986a) and further developed by Sanchez and Sobel (1993)) is not optimal in this setting. Moreover, contrary to many audit rules in the literature, an incentive compatible audit strategy can include auditing higher reports by a higher probability compared to a lower report.

 [Kacamak-Tax Enforcement with Somewhat Honest Taxpayers-494.pdf](#)

**10:07am - 10:30am**

### **Tax Evasion and Inequality - A Model Approach**

**Tim Sofke**

Technical University Braunschweig, Germany

This paper presents a model reconciling tax evasion and inequality. Despite governmental attempts to create a macroeconomically optimal income tax schedule, in an unequal society high-income individuals engage in circumvention activities abroad whereas low-income people do not. Therefore, tax progressivity at the top decreases and the equalizing impact on post-tax incomes is undermined. Two solution approaches are analyzed: a solo-run which designs the tax rate with anticipation of individual evasion behavior and nowadays broadly introduced

information exchange between countries. Both curb evasion at the top, but the former one reveals ambiguous results on welfare and worsens inequality, while the latter one turns out to push shifting incentives to zero and, at the same time, keeps up the initially intended tax rate.

A simulation provides quantitative access and illustrates theoretical results.

 [Sofke-Tax Evasion and Inequality-182.pdf](#)

**10:30am - 10:52am**

### **Tax Evasion and Flat Tax Reforms under Reference Dependent Preferences. Simulations and Distributive Effects**

**Andrea Albarea, Michele Bernasconi, Anna Marenzi, Dino Rizzi**

University Ca' Foscari Venice, Italy

It is often argued that a flat tax rate can reduce tax noncompliance. The prediction is however inconsistent with classical portfolio theory of tax evasion. We study the impact of a flat tax in a microsimulation tax-benefit model of Italy based on reference dependent preferences. Contrary to classical theory, under reference dependent preferences a flat tax reform can increase or decrease taxpayers' compliance depending on whether taxpayers' incomes are below or above a reference point. We conduct various simulations of flat tax reforms which compute endogenously the reference point in the model. Our simulations show that a flat tax can hardly reduce the overall evasion rates in Italy. Tax gaps can reduce only when the flat rate induces implausibly large supply-side effects; or under strong behavioral (ethical) taxpayers' response. Redistributive effects are in any case large.

 [Albarea-Tax Evasion and Flat Tax Reforms under Reference Dependent Preferences Simulations and Distributive.pdf](#)

**10:52am - 11:15am**

### **Evading Compliance Costs: Evidence from VAT Reforms in Japan**

**Takafumi Suzuki<sup>1</sup>, Takafumi Kawakubo<sup>2,4</sup>, Kohei Asao<sup>3,4</sup>**

<sup>1</sup>The University of Tokyo, Japan; <sup>2</sup>London School of Economics, UK; <sup>3</sup>Ministry of Finance, Japan; <sup>4</sup>Policy Research Institute, Japan

This paper disentangles the motivations for firms responding to size-dependent tax regulations by exploiting the value-added tax (VAT) reforms in Japan. Tax threshold and tax rate has changed over the past three decades since the introduction of VAT. We extend the model of Harju et al. (2019) to incorporate various tax reforms and derived empirically testable implications. By using a novel panel of Japanese Census Survey of Manufactures covering the period of VAT introduction and reforms, we found that the observed output response by firms is mainly caused by compliance costs rather than tax rates, suggesting the major factor of tax avoiding incentives is compliance costs for small firms/entrepreneurs in Japan. The authorities are encouraged to ease compliance costs while enhancing tax revenue to achieve more efficient tax design.

 [Suzuki-Evading Compliance Costs-542.pdf](#)

**9:45am - 11:15am**

## **K02: Environmental Regulation II**

**9:45am - 10:07am**

### **Carbon Pricing Design: Effectiveness, efficiency and feasibility**

**Florens Simon Flues, Kurt Van Dender**

OECD, France

Carbon pricing helps countries steer their economies towards and along a carbon-neutral growth path. This paper considers how the design of carbon pricing instruments affects their effectiveness, efficiency and feasibility. Design choices matter both for taxes and Emission Trading Systems (ETSs). Considering the role of carbon price stability for clean investment, the paper shows how volatile carbon prices can cause risk-averse investors to forego clean investment that they would have undertaken with more stable prices. The paper then evaluates the effectiveness and efficiency of policy instruments to stabilise carbon prices in ETSs, which tend to produce more volatile carbon prices than taxes. The paper analyses the auction reserve price in California the carbon price support in the UK, and the market stability reserve in the EU ETS. Considering feasibility, the paper discusses the tax (or emission) base, how revenue use can affect support from households and firms, and administrative choices.

 [Flues-Carbon Pricing Design-245.pdf](#)

**10:07am - 10:30am**

### **Taxation of Fuel and Vehicles When Emissions are Constrained**

**Geir H M Bjertnæs**

Statistics Norway, Norway

A tax on fuel combined with tax exemptions or subsidies for fuel-efficient vehicles is implemented in many countries to fulfill the Paris agreement and to curb mileage-related externalities from road traffic. The present study on the other hand shows that a tax on fuel should be combined with heavier taxation of low- and zero emission vehicles to curb mileage-related externalities and to fulfill emission targets within the transport sector. The emission target is fulfilled by adjusting the CO<sub>2</sub>-tax component on fuel. The road user charge on fuel is designed to curb mileage-related externalities. The heavier tax on low- and zero emission vehicles prevent motorists from avoiding the road user charge on fuel by purchasing low- and zero emission vehicles.

 [Bjertnæs-Taxation of Fuel and Vehicles When Emissions are Constrained-244.pdf](#)

**10:30am - 10:52am**

### **Optimal Environmental Taxation in the Presence of Pollution and Congestion: A General-Equilibrium Analysis**

**Xiaoxiao Ma<sup>1</sup>, Laura Marsiliani<sup>2</sup>, Thomas Renstrom<sup>2</sup>**

<sup>1</sup>University of Leeds, United Kingdom; <sup>2</sup>Durham University Business School, United Kingdom

We derive the structure of optimal fuel and road taxes in an economy with (i) vintage vehicles and, (ii) pollution and congestion externalities caused by driving. It is shown that the optimal road taxes on new vehicles are higher in that new vehicles generate more mileage of travel which implies more congestion. We also derive the optimal fuel tax when it needs to be uniform. We next calibrate the model on U.S. data. Here, in the presence of a congestion externality, the optimal fuel tax for old vehicles is higher which shows that the marginal cost of pollution outweighs the marginal cost of congestion. When we implement a uniform fuel tax, its rate lies between optimal ones for new and old vehicles and the road tax is the same for both types of vehicles. We also find that long-run utility is marginally higher under a full set of tax instruments.

 [Ma-Optimal Environmental Taxation in the Presence of Pollution and Congestion-639.pdf](#)

**10:52am - 11:15am**

### **Can Subsidies Rather Than Pollution Taxes Break The Trade-Off Between Economic Output And Environmental Protection?**

**Thomas Renstrom<sup>1</sup>, Luca Spataro<sup>2</sup>, Laura Marsiliani<sup>1</sup>**

<sup>1</sup>Durham University Business School, United Kingdom; <sup>2</sup>University of Pisa, Italy

We build a general equilibrium dynamic model in which individual investors are endowed with "warm-glow" preferences a la Andreoni (1990) so that they feel partly responsible for the pollution content of their portfolio. Through investors' portfolio choice, firms are induced to engage in costly abatement activities, given that higher pollution also implies a higher cost of capital. In this scenario, we characterize the equilibrium of the economy and investigate, through a fiscal reform analysis, the effects of such tax instruments on the equilibrium scale of the

economy, per-capita consumption, pollution abatement and "pollution premium". We show that an increase of the pollution tax, while reducing pollution, also depresses consumption, the scale of the economy and the pollution premium. On the contrary, an increase of subsidies on abatement activity increases the scale of the economy and can also decrease pollution and the pollution premium and increase per-capita consumption.

 [Renstrom-Can Subsidies Rather Than Pollution Taxes Break The Trade-Off Between Economic Output And.pdf](#)

9:45am - 11:15am

### K03: Social Movements

9:45am - 10:07am

#### The Power of Documentaries in China: Social Media, Public Attentions, and Pollution

**Pinghan Liang, Wei ZOU, Xiaoxing Qi**

Sun Yat-sen University, China, People's Republic of

This paper investigates the causal impact of social media activities on firms' pollutant emissions. The unexpected release and short-lived circulation of the environmental documentary Under the Dome in China in 2015, offers a natural experiment. Based on a comprehensive firm-level dataset, we find that more public attention to the documentary, measured by social media posts, led to significantly less pollutant emissions of local firms. To address the endogeneity problem, we instrument the public attention by the city's distance to the closest cities covered in the documentary. We investigate three channels: individual environmental awareness, consumers pressures on firms, and bottom-up pressures on local authorities. In particular, public attention leads to more petitions of environmental problems, consequently strengthening environmental regulatory actions by local governments.

 [Liang-The Power of Documentaries in China-539.pdf](#)

10:07am - 10:30am

#### Does Competition Spur Social Media Deployment Among Local Governments? Evidence From The Deployment Of Facebook In The German State Of Hesse

**Aleksandra Wimberger, Ivo Bischoff**

University of Kassel, Germany

We employ a hazard model to analyze the decisions of local government to deploy social media (namely Facebook). The main research question is the following: Does electoral or inter-jurisdictional competition drive social media deployment? Our results find a strong impact of inter-jurisdictional competition. Municipalities facing intense tax competition and suffering from emigration launch an official municipal page on Facebook much earlier. Somewhat surprisingly, our study does not find an impact for electoral competition. In line the theory of yardstick competition, we find the probability that a certain municipality launches a Facebook page increases in the number of its neighbors being present on this platform. Fiscally strong municipalities are more likely to be on Facebook while population size is insignificant.

 [Wimberger-Does Competition Spur Social Media Deployment Among Local Governments Evidence-518.pdf](#)

10:30am - 10:52am

#### Optimal Environmental Radical Activism

**Mireille Chiroleu-Assouline<sup>1</sup>, Ariane Lambert-Mogliansky<sup>2</sup>**

<sup>1</sup>Université Paris 1 Panthéon-Sorbonne, France; <sup>2</sup>Paris School of Economics, France

We study the problem faced by radical activists relying on non-violent civil disobedience who want to maximize firms' compliance with high environmental standards. Disruptive actions and the threat thereof are used to force firms to concede i.e., to engage in self-regulation. We adopt a mechanism design approach to characterize an optimal radical campaign. The analysis informs that the least vulnerable and most polluting firms should be targeted with disruptive actions while the others are granted a guarantee not to be targeted in exchange for a concession. We find that optimal radical campaigns are relatively resilient to repression. Next, we consider heterogeneity in firms' abatement cost to find that an optimal campaign optimizes the allocation of abatement efforts and creates incentives for innovation. We discuss some other welfare properties of optimal radical campaign.

 [Chiroleu-Assouline-Optimal Environmental Radical Activism-697.pdf](#)

10:52am - 11:15am

#### The Economic Costs of a Secessionist Conflict: The Case of Catalonia\*

**Leonzio Rizzo<sup>1</sup>, Alejandro Esteller<sup>2</sup>**

<sup>1</sup>Università di Ferrara & IEB, Italy; <sup>2</sup>Universitat de Barcelona & IEB, Spain

Due to the pro-independence demands of part of its electorate, the political fit of Catalonia within Spain has created important political tensions, in particular for the last few years. This has progressively affected several dimensions of society in Catalonia, potentially including the economy. The illegal referendum in favor of independence held in October 2017, which was the climax of political and social tension, raised the bar of the conflict rather than increasing the prospects of its end. We analyze a complete set of margins potentially affected by the referendum, including real (aggregate demand and supply) and financial responses. Using a synthetic control method, we find strong evidence of an outflow of short-term bank deposits after the referendum; on the real side, we find weak evidence of responses on the aggregate supply as well (number of capital increases and number of new registered firms).

 [Rizzo-The Economic Costs of a Secessionist Conflict-184.pdf](#)

9:45am - 11:15am

### K04: Labor Market Policy II

9:45am - 10:07am

#### Competition And Wages For Licensed Workers

**Anna Thoreson<sup>1,2</sup>**

<sup>1</sup>Uppsala University; <sup>2</sup>IFAU

This paper studies how wages respond to employer concentration using a 2009 reform that deregulated the Swedish pharmacy market. The reform involved a substantial increase in the number of employers on the pharmacy labour market. However, the change in employer concentration was not geographically uniform: certain areas experienced large changes while others were largely unaffected. Exploiting this geographical variation, elasticities of wages with respect to labour market concentration (LMC) are estimated to be between -0.02 and -0.05. The empirical approach relies only on the variation in concentration induced by the privatisation of pre-existing pharmacies to remedy the concern that actual LMC is endogenous. The positive wage effects from reduced LMC are relatively stable over time. They are most prevalent for stayers rather than new hires and those with more experience and longer tenure. Overall, the paper adds to a growing literature that finds that market concentration matters for workers' wages.

 [Thoreson-Competition And Wages For Licensed Workers-428.pdf](#)

10:07am - 10:30am

#### Unemployment Benefits And The Transition Into Self-Employment

**Sebastian Camarero Garcia<sup>1,2</sup>, Michelle Hansch<sup>3</sup>**

<sup>1</sup>ZEW Mannheim; <sup>2</sup>University of Mannheim; <sup>3</sup>Humboldt University

Although a relevant share of firms is created out of unemployment, little is known about the role of unemployment insurance (UI) generosity for self-employment. Using Spanish administrative data including so far inaccessible information on self-employment, we exploit reform-driven exogenous variation in UI benefits to identify the causal effect of a decrease in benefits on total employment and decompose it into the effects on transitions into self-

employment and regular employment. Conducting regression discontinuity estimations, we find the causal effect of benefits on post-unemployment outcomes to differ: while the job-finding rate increases, the startup rate decreases, suggesting that omitting self-employment when estimating the effect of UI generosity on total employment may lead to overestimation bias. UI benefit duration elasticity estimates reveal that cutting benefits extends unemployment duration for individuals transitioning into self-employment but shortens unemployment duration for individuals getting re-employed. Our findings should be considered for the (optimal) design of UI systems.

 [Camarero Garcia-Unemployment Benefits And The Transition Into Self-Employment-482.pdf](#)

**10:30am - 10:52am**

**Minimum Wage Policy and the Labor Supply of Households**

**Adam Lavecchia**

McMaster University, Canada

In this paper, I estimate the causal effect of minimum wage increases on the labour supply of households. Using U.S. state and federal minimum wage variation from 1989-2014 and an event study methodology, I find that minimum wage increases (i) lower the labor force participation and employment rates but (ii) increase the earnings of members likely to be directly impacted by the higher wage floor. Furthermore, I find that the earnings of the spouses of likely minimum wage workers differentially respond, depending on whether they are also likely to be at the minimum wage. In particular, the spouses of low-wage workers respond to minimum wage increases by (i) increasing their earnings if they are also a low wage worker and (ii) decreasing their earnings if they are a high wage worker. The implications of the empirical results for models of household labour supply are then discussed.

 [Lavecchia-Minimum Wage Policy and the Labor Supply of Households-648.pdf](#)

**10:52am - 11:15am**

**Financial and Non-financial Work Incentives of Disability Insurance Recipients**

**Tuuli Paukkeri, Terhi Ravaska**

VATT Institute for Economic Research, Finland

We study how the rules of the disability insurance (DI) system affect disability benefit recipients' labour supply decisions. We utilise the earnings thresholds of Finnish DI benefit recipients and a reform which introduced automatic reinstatement of benefits after a work period of maximum of two years. We study bunching behaviour relative to the monthly thresholds, and estimate the impact of the reform on the probability of working and monthly earnings in differences-in-differences setting. We find that the reform increased the labour supply of disability beneficiaries, compared to individuals with similar health problems who applied for disability benefit but were rejected. The reform also affected the earnings thresholds of lowest-income DI benefit recipients, allowing us to compare the incentive effect of earnings thresholds and automatic reinstatement.

 [Paukkeri-Financial and Non-financial Work Incentives of Disability Insurance Recipients-384.pdf](#)

**9:45am - 11:15am**

**K05: Optimal Taxation III**

9:45am - 10:07am

**On The Choice Between Price And Quantity Instrument Under Endogenous Lobby Formation****Pauli Lappi**

University of Helsinki, Finland

The choice between emission tax and emission quotas and the choice on the level of the instrument is analyzed in a political economy framework with endogenous lobby formation. The polluting firms can influence the choice between these instruments in addition to the level of the instrument, and choose whether to take part in the lobby group. It is shown that if some of the firms do participate in the lobby group, then the level of either instrument is different from the level that results in the social optimum. Sufficient conditions for the existence of non-null lobby group are presented in addition to a condition that results in a group that consists of firms with the lowest participation costs. Furthermore, it is shown with specific function forms that the firms who expect to be lobbyists will unambiguously favor a quantity instrument over a price instrument, and can induce the regulator to choose this instrument.

 [Lappi-On The Choice Between Price And Quantity Instrument Under Endogenous Lobby Formation-233.pdf](#)

10:07am - 10:30am

**Income Taxation And Job Creation****Johanna Karoline Röhrs**

University of Regensburg, Germany

In this paper, I argue that there is an inefficiently high number of job creators in a model with labour market imperfections and an endogenous decision to become a job creator. I therefore augment the standard labour matching model developed by Mortensen and Pissarides by an endogenous job decision that is based on heterogeneous job creation abilities. In the decentralised market, job creators can appropriate large parts of the surplus from matches therefore making job creation too attractive relative to the first-best. It can hence be welfare enhancing to tax the profits from job creation. The introduction of a tax on the profits of job creators restores the first-best allocation by affecting the job decision. It drives rather unproductive job creators out of the market since the marginal job creator is affected and not the average one. Thus, the negative effects to job creation are small.

 [Röhrs-Income Taxation And Job Creation-370.pdf](#)

10:30am - 10:52am

**Capital Taxation Under Stochastic Returns : A Case Against The Wealth Tax****Eddy Zanoutene**

CRED (TEPP), Université Panthéon-Assas Paris II, France

I present a model of optimal capital taxation with stochastic returns and heterogeneous productivity. I examine the relevance of capital income taxation and wealth taxation in such environment. I first show that when the government can observe both wealth, labor and capital incomes, the optimal policy combines a confiscatory capital income tax with a wealth subsidy to fully insure agents against random returns. I then constrain the information set of the government and prove that the optimum features positive capital income taxation even when wealth is not observed. However, a wealth tax remains irrelevant when capital income is not observed. These results are valid under any social welfare function.

 [Zanoutene-Capital Taxation Under Stochastic Returns-240.pdf](#)

10:52am - 11:15am

**Optimal Political Finance Regulation****Dylan T. Moore**

University of Michigan, United States of America

Political finance policy is (at least sometimes) tax policy. It is therefore striking that the existing normative taxation literature makes no attempt to answer important policy questions such as: what is the optimal political contribution tax credit schedule? In this paper, I present a preliminary attempt to begin filling this gap. I begin by developing an extension of probabilistic voting models of elections where candidate campaign are financed by a large number of citizen donors. I subsequently characterize the impact of campaign finance incentives and campaign finance regulation on policy outcomes within such a model. Finally, I discuss potential normative criteria for evaluating the impact of campaign finance regulations. The paper illustrates the many positive and normative challenges inherent in this enterprise.

 [Moore-Optimal Political Finance Regulation-649.pdf](#)

9:45am - 11:15am

**K06: Behavioral Economics**

9:45am - 10:07am

**Overconfidence and Risk-Taking - Consequences of the Financial Crisis****Bernhard Kassner**

University of Munich (LMU), Germany

Managerial overconfidence is regarded as one of the reasons for excessive risk-taking in the U.S. financial sector that led to the global financial crisis of 2007-2009. In the aftermath of the crisis, public scrutiny and financial regulation urged financial institutions to reduce risk. I find that risk decreased more at financial institutions with overconfident CEOs, who followed riskier strategies prior to the crisis. This effect is stronger for systemically important financial institutions subject to enhanced regulation. This provides evidence that the appropriate mix of regulatory instruments and corporate oversight can mitigate adverse effects of managerial overconfidence.

 [Kassner-Overconfidence and Risk-Taking-535.pdf](#)

10:07am - 10:30am

**Belief Biases, Information Provision, and the Willingness-To-Pay for Public Transport: Evidence from a Field Experiment****Mark Andor<sup>1</sup>, Manuel Frondel<sup>1,2</sup>, Andreas Gerster<sup>3</sup>, Marco Horvath<sup>1</sup>**<sup>1</sup>RWI - Leibniz Institute for Economic Research, Germany; <sup>2</sup>Ruhr University Bochum; <sup>3</sup>University of Mannheim

This study elicits individual's revealed willingness-to-pay (WTP) for public transport in a framed field experiment, which is implemented in a survey among about 3,000 participants. We conduct a second-price auction to elicit participants' WTP for a public transport ticket. Based on randomized information treatments, we test how respondents adjust their WTP after receiving personalized information on car ownership cost and carbon emissions. Specifically, we estimate the causal effect of economic and environmental information on the WTP. The paper finds that economic information, i.e. personalized information about the real costs of traveling by car increases the WTP for public transport.

 [Andor-Belief Biases, Information Provision, and the Willingness-To-Pay-536.pdf](#)

10:30am - 10:52am

**The Link Between Short-termism and Risk: Barriers to Investment in Long-term Infrastructure Projects****Boyan Yanovski, Kai Lessmann, Ibrahim Tahri**

Potsdam Institute for Climate Impact Research, Germany

We study the relative attractiveness of long-term infrastructure project in a stylized framework with decreasing absolute risk aversion, consumption smoothing and portfolio independent risk. We find that the portfolio independent risk and the decreasing absolute risk aversion interact with the payoff structure of long-term projects to create an

endogenous discounting of delayed payoffs. In contrast to traditional treatments of short-termism, the resulting discounting depends *positively* on risk, implying that risk exacerbates short-termist behavior. Our work uncovers channels through which long-run projects become disadvantaged and makes the case for the need to support such projects with policy measures in particular during times of increased uncertainty.

 [Yanovski-The Link Between Short-termism and Risk-600.pdf](#)

10:52am - 11:15am

### How Altruistic Is Indirect Reciprocity? - Evidence From Gift-exchange Games In The Lab

Johannes Becker<sup>1</sup>, Daniel Hopp<sup>1</sup>, Karolin Süß<sup>2</sup>

<sup>1</sup>University of Muenster, Germany; <sup>2</sup>University of Duisburg-Essen, Germany

We consider a three player gift-exchange experiment in which the worker's information on wages is varied to investigate whether indirect reciprocity is based on altruistic or on selfish preferences. If only their coworker's wage is observable, workers respond to higher coworker wages with an increase in effort. In contrast, if their own wage is revealed, the coworker's wage does not affect worker effort anymore. We interpret this finding as evidence for indirect reciprocity being rooted in selfish preferences. That is, workers interpret their coworker's wage as a signal for their own wage; such a signal, though, is worthless if the workers' own wages are observable. We therefore conclude that indirect reciprocity is rather a byproduct of direct reciprocity than an act of altruism.

 [Becker-How Altruistic Is Indirect Reciprocity-378.pdf](#)

9:45am - 11:15am

## K07: Tax Competition

9:45am - 10:07am

### Tax Competition with Intermunicipal Cooperation

David Agrawal<sup>1</sup>, Marie-Laure Breuille<sup>2</sup>, Julie Le Gallo<sup>2</sup>

<sup>1</sup>University of Kentucky, United States of America; <sup>2</sup>CESAER

We study local tax competition when municipalities can voluntarily cooperate with neighboring jurisdictions. In France, the strongest form of cooperation among municipalities occurs by forming an "establishment for inter-municipal cooperation" with tax power (EIMC). We study how tax competition and interjurisdictional policy interdependence differ between competing municipalities within the same EIMC and competing municipalities outside of the cooperative unit. We apply the estimation strategy of Kelejian and Piras (2014) to resolve the endogeneity of the decision to cooperate with other municipalities. When studying the effect of cooperation on taxes, we find that strategic interactions among peer members of the same EIMC is less intense than strategic interactions with municipalities outside of the cooperative unit. We discuss how our empirical methods can be used to study strategic interactions in many other cooperative groups, such as between members within and outside of international trade agreements or firm distribution networks.

 [Agrawal-Tax Competition with Intermunicipal Cooperation-476.pdf](#)

10:07am - 10:30am

### Nash Equilibria in Models of Fiscal Competition with Unemployment

Yuya Kikuchi, Toshiki Tamai

Nagoya University, Japan

This paper examines two different fiscal competition games under labor market imperfections. Given that capital moves across regions and affects regional employment, governments must choose expenditure levels and tax rates on such mobile capital by accounting for the effects of fiscal variables on both capital and labor. Then, governments may play these games with either tax rates on mobile capital or with public expenditures. The presence/absence of absentee ownership of capital and employment externalities are important factors for characterizing two distinct Nash equilibria, one that occurs with tax competition and the other with expenditure competition. In particular, and contrary to the existing literature, tax rates under tax competition are likely to be more competitive than under expenditure competition because of employment externalities. Furthermore, in some cases, governments prefer to choose government expenditure as their strategic variable rather than tax rates.

 [Kikuchi-Nash Equilibria in Models of Fiscal Competition with Unemployment-157.pdf](#)

10:30am - 10:52am

### Tax Competition for Overconfident Migrants

Andreas Haufler<sup>1,3</sup>, Yukihiko Nishimura<sup>2,3</sup>

<sup>1</sup>Seminar for Economic Policy, University of Munich, Germany; <sup>2</sup>Osaka University, Japan; <sup>3</sup>CESifo, Germany

We set up a simple model of tax competition for mobile, highly-skilled managers. Firms endogenously choose the compensation scheme for managers, which consists of a fixed wage and a bonus payment in the high state. Managers are overconfident about the probability of the high state and hence of receiving the bonus, whereas firms and governments are not. In this setting we show that overconfidence (i) unambiguously increases the bonus component in the managers' compensation package and (ii) it reduces the bonus tax rate that governments set in the non-cooperative tax equilibrium. Hence overconfidence can contribute to explaining both the increasing role of bonus contracts and the fall in marginal tax rates for high-income earners.

 [Haufler-Tax Competition for Overconfident Migrants-210.pdf](#)

10:52am - 11:15am

### Does Intergovernmental Competition Improve the Business Environment?

Travis Michael Cassidy<sup>1</sup>, Tejaswi Velayudhan<sup>2</sup>

<sup>1</sup>University of Alabama, United States of America; <sup>2</sup>UC Irvine, United States of America

We examine whether intergovernmental competition improves the business environment in the context of a major period of decentralization in Indonesia that increased the number of local governments by 50 percent within a decade. District governments, which are responsible for the majority of local public expenditure and receive revenue from business licensing fees and shared tax revenue, split into smaller districts, increasing the number of local governments within original district boundaries. Exploiting idiosyncratic variation in the timing of splits generated by a national moratorium, we find that district splits lead to an increase in the prevalence of informal gift payments that is accompanied with some increase in services, which is consistent with imperfect mobility and monopolistically competitive district governments. Competition does not reduce the licensing burden, however infrastructure quality improves in areas where firms' moving costs fall the most, suggesting that governments compete only for the most mobile of firms.

 [Cassidy-Does Intergovernmental Competition Improve the Business Environment-537.pdf](#)

11:30am - 1:00pm

## L01: Tax Havens I

11:30am - 11:52am

### On the Effects of Financial Secrecy

Petr Janský, Tereza Palanská, Miroslav Palanský

Charles University, Czech Republic

Secrecy jurisdictions allow residents of other countries to hide their identity and thereby escape their home legislation. The last decade has seen progress towards financial transparency on several fronts, e.g. automatic information exchange and beneficial ownership registries. In this paper, we use a recently compiled panel dataset of

financial secrecy to examine the effects of its heterogeneous development across countries. Using a trilateral setting, we hypothesize that investors will react to the changing landscape of financial secrecy by relocating their assets to jurisdictions that remain, or newly become, more financially secretive relative to other countries. We find evidence of a significant positive effect of a change in relative secrecy on the value of third-country investors' assets. Importantly, in line with our theoretical predictions, we find that the elasticity is higher the higher the change in relative secrecy, pointing to the heterogeneous benefits that different investors gain from using financial secrecy.

 [Janský-On the Effects of Financial Secrecy-617.pdf](#)

11:52am - 12:15pm

### The Elusive Banker: Using Hurricanes To Uncover (Non-)Activity In Offshore Financial Centers

**Jakob Miethe**

Ludwig-Maximilians-University Munich (LMU), Germany

A number of small islands in the Caribbean and the Pacific & Indian Oceans are accumulating billions of dollars in international capital. Are these positions attracted by specialized human capital and innovative financial services, as such Offshore Financial Centers (OFCs) claim? Or are they the result of regulatory arbitrage as some economists assume, pointing to financial stability and effective taxation concerns? Based on several novel data sources, this study exploits the natural experiment of re-occurring hurricanes to test for reactions in financial service activity of OFCs. It finds that local conditions, captured by geospatial satellite data on nighttime intensity, deteriorate significantly for six to twelve months. However, in OFCs neither the interbank market nor international investors react, while non-OFC islands do show strong negative reactions. Investors are informed about this and some activity can be linked back to financial hubs such as London. These results suggest that the high-powered financial service activities leading to the large international capital positions of OFCs take place elsewhere and that OFCs do not create value by providing human capital or financial services locally.

 [Miethe-The Elusive Banker-500.pdf](#)

12:15pm - 12:37pm

### Exchange Of Information And Bank Deposits In International Financial Centres

**Pierce O'Reilly<sup>1</sup>, Kevin Parra Ramirez<sup>2</sup>, Michael Alfons Stemmer<sup>1</sup>**

<sup>1</sup>OECD, France; <sup>2</sup>Banque de France

This paper assesses the impact of exchange of information on foreign-owned bank deposits in international financial centres (IFCs). Based on a dataset with extended jurisdiction coverage and sample length, foreign-owned IFC deposits declined globally by 24% or USD 410 billion during the period from 2008 to 2019. The commencement of automatic exchange of information is associated on average with a statistically significant 22% reduction in IFC bank deposits held by non-IFC counterparty jurisdictions. The results show that exchange of information on request was associated with a reduction of around 10% during the early years of implementation. Robustness checks show that voluntary disclosure programmes do not drive the results. These findings highlight the effectiveness of the expansion of automatic exchange of information and provide further evidence of the success of a comprehensive multilateral approach towards international tax transparency.

 [OReilly-Exchange Of Information And Bank Deposits In International Financial Centres-237.pdf](#)

12:37pm - 1:00pm

### Offshore Real Estate Investment. Economic Incentives, Secrecy Motives, and Ultimate Ownership

**Daniel Weishaar, Jakob Miethe**

University of Munich (LMU), Germany

Using administrative land register data on the universe of foreign commercial real estate holdings in England and Wales, we exploit tax policy changes and transparency shocks to identify reactions of foreign owners of real estate. Results show that both tax incentives and secrecy motives drive foreign investment in real estate markets. Further, we link these data to corporate records leaked from secrecy jurisdictions where corporate structures usually conceal the ultimate owner of these investments. This allows us to follow foreign real estate holdings through to the ultimate beneficiaries. A significant share of the linked foreign corporate real estate investment can be traced back to UK citizens and therefore constitutes round-tripping. These findings have important implications for both real estate policy in target countries and regulation attempts of offshore financial centers.

 [Weishaar-Offshore Real Estate Investment Economic Incentives, Secrecy Motives, and Ultimate Ownership-391.pdf](#)

11:30am - 1:00pm

## L02: Environmental Regulation III

11:30am - 11:52am

### Optimal Fuel Taxation With Suboptimal Health Choices

**Simona Sulikova, Inge van den Bijgaart, David Klener, Linus Mattauch**

University of Oxford, United Kingdom

Transport has a large number of significant externalities including carbon emissions, air pollution, accidents and congestion. Increased active travel such as cycling and walking can reduce these externalities. Moreover, public health research has identified additional social gains from active travel due to health benefits of increased physical exercise. In fact, on a per mile basis, these benefits dominate the external social costs by two orders of magnitude. We introduce health benefits and active travel options into a model of transport externalities to study appropriate policy responses. We characterise the optimal second-best fuel tax analytically: when physical exercise is considered welfare-enhancing, the optimal fuel tax increases. Under our central assumptions, the increase is 34% in the US and 38% in the UK. We argue that fuel taxes should be implemented jointly with other policies aimed at increasing the uptake of active travel to reap its full health benefits.

 [Sulikova-Optimal Fuel Taxation With Suboptimal Health Choices-200.pdf](#)

11:52am - 12:15pm

### What if Commuting Has Demerit Properties?

**Bart Defloor, Dirk Van de gaer**

Ghent University, Belgium

People spend a lot of their time commuting. Research in health economics indicates that spending time in traffic has long run adverse effects on physical and mental health. Nevertheless, when making decisions about commuting, the individual commuter might underestimate these consequences and take them insouciantly into consideration. We argue for this reason that commuting has demerit properties. From the policymakers' point of view, commuting is also associated with an externality. If commuters underestimate the impact on their welfare of commuting, this aggravates also the externality. We propose a way in which both these demerit considerations and the externality can be incorporated into marginal costs of funds (MCF) formulae. We apply the framework using the American Time Use Survey (ATUS). We calculate MCF for three policy instruments (lump sum tax, the tax on commuting and the income tax) and suggest tax reforms in several states.

 [Defloor-What if Commuting Has Demerit Properties-696.pdf](#)

12:15pm - 12:37pm

### Cash versus In-Kind Settlements: Implications for Environmental Protection

**Lucija Muehlenbachs<sup>1</sup>, Pamela Campa<sup>2</sup>**

<sup>1</sup>University of Calgary & RFF; <sup>2</sup>SITE, Stockholm School of Economics

In court settlements, cash penalties are sometimes reduced if a defendant agrees to undertake an in-kind project, for

example, agrees to create an education program or a public park. In the United States, court cases involving environmental violations are encouraged to use in-kind settlements as a way to address Environmental Justice concerns in minority and low-income communities. A disadvantage arises if in-kind settlements are a more lenient form of sanction, leading to more wrong-doing in the future. We estimate the impact of in-kind settlements on firm share prices, the implications on future environmental compliance, and the social welfare weights that reconcile the choice of location of past in-kind settlements. We predict the welfare gains from changing the social welfare weights and the location of in-kind settlements.

 [Muehlenbachs-Cash versus In-Kind Settlements-572.pdf](#)

11:30am - 1:00pm

### L03: Intergenerational and Long-term Inequality

11:30am - 11:52am

#### Should Generations Differ In Their Wealth Accumulation?

**David Sturrock**<sup>1,2</sup>, **Rowena Crawford**<sup>2</sup>

<sup>1</sup>University College London, United Kingdom; <sup>2</sup>Institute for Fiscal Studies

In the UK, those born between the 1930s and 1950s have seen generation-on-generation increases in wealth, while those born more recently appear to have accumulated no more wealth than their predecessors had done by the same age. We use a heterogeneous agents lifecycle model to quantify the potential importance of changing economic and demographic circumstances for the wealth accumulation of generations. Using generation-specific inputs to our model, we examine the impact of differences in earnings, household composition, life expectancy, retirement ages, the tax and benefit system, the state pension system and rates of return on assets. Several of these factors have quantitatively important implications for the level and distribution of wealth, saving rates and replacement rates. We find that changing circumstances alone could generate a picture of stalling wealth accumulation among later generations – one does not need to appeal to differences in preferences between generations.

 [Sturrock-Should Generations Differ In Their Wealth Accumulation-534.pdf](#)

11:52am - 12:15pm

#### Lifetime Inequality and Redistribution in Germany

**Holger Lüthen**<sup>1,2</sup>, **Giacomo Corneo**<sup>2</sup>, **Timm Bönke**<sup>2</sup>

<sup>1</sup>DIW Berlin, Germany; <sup>2</sup>Freie Universität Berlin

We employ German social security records and a comprehensive microsimulation model to investigate lifetime income inequality and redistribution within cohorts, starting with those born in 1935. We document a secular rise of lifetime income inequality, both pre-fisc and post-fisc. Over entire life cycles, the German tax-transfer system is found to be progressive and generating substantial effects on the disposable incomes of the two extreme deciles of the lifetime income distribution. The overall lifetime tax-transfer-system is close to linear. Governmental lifetime income redistribution mechanically reduces lifetime inequality by more than a fifth; redistribution displays an inverted-U shape over cohorts. Differential mortality increases lifetime income inequality by just 4 %. We develop a money-metric welfare measure that takes the value of greater longevity into account. We find that differential mortality increases lifetime welfare inequality by a substantially larger amount.

 [Lüthen-Lifetime Inequality and Redistribution in Germany-412.pdf](#)

12:15pm - 12:37pm

#### Long-Term Effects of Equal Sharing: Evidence from Historical Inheritance Rules for Land

**Charlotte Bartels**<sup>1</sup>, **Simon Jäger**<sup>2</sup>, **Natalie Obergruber**<sup>3</sup>

<sup>1</sup>DIW, Germany; <sup>2</sup>MIT; <sup>3</sup>EY

What are long-term economic effects of a more equal distribution of wealth? We exploit variation in historical inheritance rules for land during Germany's transition from an agrarian to an industrial economy. In some German areas, inherited land was to be shared equally among children in some German areas, while in others land was ruled to be indivisible. Using a geographic regression discontinuity design, we show that the equal division of land lowered landholding inequality and led to earlier industrialization, particularly in innovative industries and occupations. The small and fragmented peasant holdings in equal division areas created both the incentive and the opportunity for extensive engagement in industrial by-employment during the industrialization period. Studying long-term outcomes, we find substantially higher GDP per capita, higher labor productivity, higher top incomes and more millionaires in equal division areas today.

 [Bartels-Long-Term Effects of Equal Sharing-471.pdf](#)

11:30am - 1:00pm

### L04: Labor Market Policy III

11:30am - 11:52am

#### A Meta-Analysis of Labor Demand and Supply Elasticities Using Payroll-tax Reforms

**Evelina Gavrilova**, **Arnt-Ove Hopland**, **Jarle Møen**, **Floris T. Zoutman**

NHH Norwegian School of Economics, Norway

Zoutman, Gavrilova and Hopland (2018) develop a method that allows to estimate structural demand and supply elasticities using variation in a single tax rate. In this paper, we apply this methodology to papers in the payroll tax literature. We use reduced-form estimates from the literature on payroll taxation to retrospectively estimate structural labor demand and supply elasticities. We extend the methodology to other areas of the labor economics literature. Therefore, we create an overview on the structural estimates of the labor supply and demand. We discuss implications.

 [Gavrilova-A Meta-Analysis of Labor Demand and Supply Elasticities Using Payroll-tax Reforms-368.pdf](#)

11:52am - 12:15pm

#### Wealth Effects on Labor Supply: Evidence From a Swedish Tax Reform

**Oscar Erixson**<sup>1</sup>, **Ole Agersnap**<sup>2</sup>

<sup>1</sup>Uppsala University, Sweden; <sup>2</sup>Princeton University, USA

We exploit a Swedish tax reform to obtain quasi-experimental, tax-induced variation in wealth which allows us to identify the effect of wealth on labor supply. The reform that we study abolished the inheritance tax in Sweden; the random timing of death around the reform leads to exogenous variation in the net inheritance received by heirs. Using register data covering the full Swedish population of children heirs, we find that a 1 SEK shock to wealth reduces annual earnings in the near term by about 0.016 SEK – a magnitude which is in line with previous estimates of wealth effects – though the estimate is somewhat imprecise and sensitive to removing outliers. To our knowledge, ours is the first study to demonstrate effects on labor supply from plausibly random, tax-induced variation in wealth.

 [Erixson-Wealth Effects on Labor Supply-350.pdf](#)

12:15pm - 12:37pm

#### Trade Unions and Corporate Social Responsibility

**Laszlo Goerke**

Trier University, Germany

Trade unions distort a profit-maximising firm's input choice. The nature of the resulting inefficiency depends on whether there is wage or efficient bargaining. Moreover, trade unions redistribute income and thereby affect welfare.

If firms also pursue Corporate Social Responsibility (CSR) objectives, input choices are distorted already in the absence of collective bargaining. Adopting a positive perspective, we show that CSR objectives which foster economic activity have ambiguous wage and employment consequences in case of wage negotiations and raise employment if there is efficient bargaining. Importantly from a normative vantage point, such CSR objectives make a welfare-enhancing role of trade unions more likely in the presence of wage negotiations, whereas the reverse may be true in case of efficient bargaining.

 [Goerke-Trade Unions and Corporate Social Responsibility-580.pdf](#)

12:37pm - 1:00pm

### **Incidence And Wage Effects Of Means-tested Transfers**

**Dario Tortarolo<sup>1</sup>, Santiago Garriga<sup>2</sup>**

<sup>1</sup>University of California, Berkeley; <sup>2</sup>Paris School of Economics

We explore how the way in which tax credits are disbursed affects employer's behavior, wages, and employment. We exploit a change in the payment system in Argentina that was gradually rolled out between 2003 and 2010. Under the old system, employers were in charge of delivering family allowances to their employees together with the monthly salary, and the transfer was deducted from employer social security contributions. For transparency purposes, the government eliminated the intermediary role of firms and started depositing the transfer directly into workers' bank accounts. Using employer-employee administrative data and an event-study approach, we show that the way tax credits are disbursed matters. Employers shift part of the incidence of the transfer by paying lower wages. The mechanisms are consistent with a labor demand story rather than pay equity concerns. Our findings are therefore in line with the hypothesis that transfers are not all captured dollar for dollar by workers.

 [Tortarolo-Incidence And Wage Effects Of Means-tested Transfers-445.pdf](#)

11:30am - 1:00pm

### **L05: Income Taxation**

11:30am - 11:52am

### **Optimal Income Taxation In The Presence Of Networks Of Private Transfers**

**Anasuya Raj**

CREST, Ecole Polytechnique, France

Following the tradition of Mirrlees (1971), static optimal income taxation problems are typically concerned with public redistribution by the State between independent individuals or couples. This paper is the first to depart from this independence assumption and to account for the interaction between public redistribution and private transfers occurring between individuals within their familial and social networks. Here, individuals value the private utilities of their group's members and differ in their productivity levels. As a result, they choose their productive effort and the transfers they make to others. I characterize theoretically the optimal linear and non-linear income tax schemes in this context. I show that at the optimum the government may rely on these transfers to achieve its equity objective. These novel insights can then be applied to a variety of settings, such as those of family taxation and of taxation in developing countries.

 [Raj-Optimal Income Taxation In The Presence Of Networks Of Private Transfers-243.pdf](#)

11:52am - 12:15pm

### **Capital Incomes are more Elastic than Labor Incomes**

**Marie-Noelle Lefebvre<sup>1</sup>, Etienne Lehmann<sup>1</sup>, Michael Sicsic<sup>1,2</sup>**

<sup>1</sup>University Paris 2 Pantheon-Assas, France; <sup>2</sup>INSEE

We compare labor incomes responses to capital income responses in France. We use two different approaches.

First, we use a difference-in-differences strategy based. We find a very strong response of capital income which is entirely driven by the response of dividends, with no response of interest incomes. Conversely, labor earnings do not respond, even when looking only at responses by taxpayers with self-employed incomes.

Second, we use an IV approach taken from the Elasticity of Taxable Income literature. We find a 0.7 capital income elasticity with respect to its own marginal net-of-tax and a small but statistically significant positive elasticity of labor incomes with respect to capital net-of-tax rate, the latter result being at odds with the prediction of an income-shifting model. Conversely, the labor income elasticity with respect to its own marginal net-of-tax rate is low (around than 0.1), while the cross-based elasticity is around -0.7.

 [Lefebvre-Capital Incomes are more Elastic than Labor Incomes-189.pdf](#)

12:15pm - 12:37pm

### **Optimal Income Taxation with Spillovers from Employer Learning**

**Ashley Cooper Craig**

University of Michigan, United States of America

I study optimal income taxation when human capital investment is imperfectly observable by employers. In my model, Bayesian employer inference about worker productivity compresses the wage distribution. This lowers the private return to investment in human capital, and workers invest too little. The model implies an externality: given the same information, employers form more favorable beliefs about an individual when workers are generally more productive. This externality lowers optimal marginal tax rates. Its quantitative significance hinges on the accuracy of employers' beliefs and the responsiveness of human capital investments to taxation. I calibrate the model to match empirical moments from the United States, including evidence on the speed of employer learning about labor market entrants. Taking into account the spillover from human capital investment introduced by employer inference reduces optimal marginal tax rates by 13 percentage points at 100,000 dollars of income, with little change in the tails of the income distribution.

 [Craig-Optimal Income Taxation with Spillovers from Employer Learning-318.pdf](#)

12:37pm - 1:00pm

### **Valuable Realizations**

**James R. Hines Jr.<sup>1</sup>, Daniel Schaffa<sup>2</sup>**

<sup>1</sup>University of Michigan, United States of America; <sup>2</sup>University of Richmond, United States of America

This paper considers the effects of capital gains taxes on sales of capital assets. While taxation gives investors incentives to accumulate unrealized gains over long periods, higher tax rates can be associated with greater realizations. Higher tax rates reduce after-tax investment returns, which reduces the value of deferral. As a result, the net effect of higher tax rates on realizations depends on the extent to which the cost of lengthening an investment horizon is deductible against capital gains taxes. In steady states with realistic parameter values, higher tax rates either encourage earlier realizations or offer only very modest encouragement to later realizations. Consequently, the sizeable observed effects of higher capital gains taxes in discouraging realizations likely reflect investor anticipations of future tax changes.

 [Hines Jr.-Valuable Realizations-681.pdf](#)

11:30am - 1:00pm

### **L06: Macroeconomics and Public Finance**

11:30am - 11:52am

### **Exchange Rate Disconnect and Commodity Prices**

**Aleksandra Babii<sup>1,2</sup>, Hussein Bidawi<sup>1</sup>**

<sup>1</sup>International Monetary Fund, USA; <sup>2</sup>Toulouse School of Economics, France

This paper shows that exchange rates of a large and heterogeneous set of countries are connected to commodity prices. This overturns the exchange rate disconnect puzzle: the empirical fact that nominal exchange rates are not linked to their fundamentals. Importantly, the connection between exchange rates and commodity prices is independent of the patterns of trade in commodities. Strikingly then, this observed link is not restricted to the exchange rate of commodity exporters. Further, a novel empirical regularity about this link is uncovered. In particular, the connectedness of exchange rates to commodity prices exhibits important time variation: commodity prices and exchange rates are more linked in times of high volatility on financial markets. Nonetheless, the explanatory power of commodity prices is itself robust to controlling for this measure of risk sentiment on financial markets. Our findings emphasize the need to study exchange rates and commodity prices beyond the traditional trade framework.

 [Babii-Exchange Rate Disconnect and Commodity Prices-135.pdf](#)

11:52am - 12:15pm

### Sovereign Risk, Financial Fragility and Debt Maturity

**Dallal Bendjellal**

Aix-Marseille School of Economics, France

This paper studies the transmission of a sovereign debt crisis in which a shift in sovereign default risk generates a recession and gives rise to a doom loop between sovereign distress and bank fragility with important amplification effects. The model is used to investigate the macroeconomic and welfare effects of altering the debt maturity structure during the crisis. My main finding is that shifting towards short-term maturities alleviates the bankers' capital losses on long-term bonds and moderates the recession at the cost of higher levels of public debt in the future. In contrast, lengthening the maturity structure is more effective in reducing the households' welfare losses as it reduces the rollover costs of debt, which results in a lower sovereign default risk and lower distortionary taxes.

 [Bendjellal-Sovereign Risk, Financial Fragility and Debt Maturity-634.pdf](#)

12:15pm - 12:37pm

### Tax Avoidance Regulations and Stock Market Responses

**Katarzyna Bilicka<sup>1</sup>, Yaxuan Qi<sup>2</sup>, Danjue Shang<sup>3</sup>**

<sup>1</sup>Utah State University; <sup>2</sup>City University of Hong Kong; <sup>3</sup>Utah State University

In this paper we examine the effects of anti-tax avoidance regulations on stock returns and systematic risk exposure of multinational corporations (MNCs). We use the introduction of the worldwide debt cap reform in 2010 in the UK as a quasi-natural experiment that limited the extent of profit shifting for a group of multinational firms. We find that multinationals affected by the reform are associated with higher raw returns and lower UK market risk exposure than unaffected MNCs after the reform. This is consistent with the evidence that multinational firms move debt and real operations away from the UK in response to the reform thereby minimizing the effects of anti-tax avoidance regulation on their overall tax payments. Our results suggest that the observed debt shifting behavior signals the MNCs' competency to perform tax planning and investors reward it and perceive these firms as valuable investment.

 [Bilicka-Tax Avoidance Regulations and Stock Market Responses-642.pdf](#)

1:15pm - 2:45pm

### M01: Tax Havens II

1:15pm - 1:37pm

#### Paraisos Fiscales, Wealth Taxation, and Mobility

**David R. Agrawal<sup>2</sup>, Dirk Foremny<sup>1</sup>, Clara Martínez-Toledano Toledano<sup>3</sup>**

<sup>1</sup>Universitat de Barcelona / I.E.B., Spain; <sup>2</sup>University of Kentucky; <sup>3</sup>Paris School of Economics

What is the effect of annual wealth taxes on mobility? We take advantage of the unique decentralization of the Spanish wealth tax system, after which all regions levied positive tax rates except for Madrid. Using linked administrative wealth and income tax records, we exploit the presence of this "fiscal paradise" to understand the mobility responses of high-wealth individuals and the resulting effect on wealth tax revenue and the distribution of wealth inequality. Aggregating the individual data to the region-year level, we find that five years after the reform, the stock of wealthy individuals in the region of Madrid increased by 10% relative to other regions. Using an individual choice model, Madrid's zero tax rate substantially increased the probability of declaring one's fiscal residence in Madrid. We then use our empirical estimates to show that Madrid's status as a tax haven exacerbates regional wealth inequalities and erodes the effectiveness of raising tax revenue.

 [Agrawal-Paraisos Fiscales, Wealth Taxation, and Mobility-440.pdf](#)

1:37pm - 2:00pm

#### Corporate Profit Misalignment: An Analysis of German Parent Companies and their Foreign Affiliates

**Sarah Godar, Petr Janský**

Charles University Prague

We analyse to what extent the location of the German MNEs' profit is aligned with the location of their economic activities with the data by the Deutsche Bundesbank. These include confidential data on foreign direct investments from the MiDi database and a combination of confidential and publicly available balance sheet data from the JANIS database. We find that the world's tax havens attract a considerably higher share of German MNEs' profit than economic activity while in East European countries, most developing countries and some big European countries reported profits are much lower than economic activity would suggest. No clear pattern emerges for German parent companies which contrasts with existing evidence of profit shifting by German affiliates of foreign MNEs. Also, we find that the most important tax haven for German multinational corporations are the Netherlands, followed by other EU tax havens and Switzerland while other tax havens are relatively less important.

 [Godar-Corporate Profit Misalignment-455.pdf](#)

2:00pm - 2:22pm

#### Measuring Firm Activity from Outer Space

**André Seidel<sup>1</sup>, Katarzyna Bilicka<sup>2,3</sup>**

<sup>1</sup>University of Bergen, Norway; <sup>2</sup>Utah State University; <sup>3</sup>Oxford University Centre for Business Taxation

In this paper we propose to use the light produced by factories at night as a proxy for firm activity. For a large sample of car manufacturing firms, we collect a novel dataset on nighttime footprint of their plants. We match this data with information on firm level characteristics. We find a strong positive correlation between nighttime light and firm size, wages, turnover and profits. Thus, this paper develops a new data source for firm level activity that is not biased by firm level opportunistic reporting. We show that the observed correlations are smaller for assets, wages and profits reported in high tax countries than in low tax countries. These findings are consistent with profit shifting and point towards possible margins of adjustments available to firms, such as assets and wages.

 [Seidel-Measuring Firm Activity from Outer Space-269.pdf](#)

2:22pm - 2:45pm

#### Local Tax Policy Responses To An Open Border: The Case Of Switzerland

**Justus Nover<sup>1,2</sup>**

<sup>1</sup>ZEW Mannheim; <sup>2</sup>University of Mannheim

I exploit a policy that liberalized cross-border labor markets between Switzerland and the EU to study local policy makers' response to labor market integration. The reform was exogenous to Swiss border municipalities and led to a

substantial inflow of cross-border workers from neighboring countries. Using exogenous regional variation in treatment intensities, first results based on a dynamic DiD approach show that highly-treated municipalities in response to the reform deviated from the general downward trend in taxes observed for the considered period 1995-2010. They lowered their corporate and personal income taxes to a significantly smaller extent compared to less treated regions. A possible interpretation is that policy makers perceived the inflow of qualified workers as increasing the attractiveness of the location which improved their relative position in the (tax) competition with other regions. The insights of the paper facilitate a better understanding of local responses to labor market integration processes.

 [Nover-Local Tax Policy Responses To An Open Border-606.pdf](#)

1:15pm - 2:45pm

## M02: Distributional Effects of Environmental Policies

1:15pm - 1:37pm

### Distributional Effects of Environmental Policy across Workers: A General-Equilibrium Analysis

**Marc Hafstead<sup>2</sup>, Robertson Williams<sup>1,2,3,4</sup>**

<sup>1</sup>University of Maryland; <sup>2</sup>Resources for the Future; <sup>3</sup>Climate Leadership Council; <sup>4</sup>National Bureau of Economic Research

This paper analyzes the distribution of transitional labor market dynamics across workers using a multisector CGE model with search frictions. When we track workers by their industry when the policy is introduced, we find significant differences in short-run labor-market effects (wages and unemployment rates) across a range of policies targeting CO2 emissions. Unsurprisingly, we find that large negative impacts are concentrated among workers initially employed in a few carbon-intensive industries. Finally, we show that policy pre-announcement and policy phase-ins can meaningfully reduce the short-run negative employment impacts for the most affected groups of workers.

 [Hafstead-Distributional Effects of Environmental Policy across Workers-464.pdf](#)

1:37pm - 2:00pm

### Optimal Environmental Taxation and Horizontal Equity

**Martin C. Hänsel<sup>1</sup>, Max Franks<sup>1,3</sup>, Matthias Kalkuhl<sup>2,4</sup>, Ottmar Edenhofer<sup>1,2,3</sup>**

<sup>1</sup>Potsdam Institute for Climate Impact Research, Germany; <sup>2</sup>Mercator Institute on Global Commons and Climate Change (MCC), Germany; <sup>3</sup>Technical University Berlin, Germany; <sup>4</sup>University of Potsdam, Germany

We develop a model of optimal taxation taking into account environmental

and horizontal equity concerns. To this end our model captures households that are heterogeneous in terms of how efficient they can convert carbon-intensive energy into individual well-being. We then investigate how horizontal equity is considered in the economy's welfare maximizing tax structure by deriving policy rules for optimal environmental taxes in first- and second-best settings. We find that both the optimal carbon tax and the marginal income tax depend on individual household characteristics and take distributional and other efficiency aspects into account. The optimal marginal income tax does not obey Sandmo's principle of targeting. While the environmental shadow price does not appear in the rule for the optimal marginal income tax, it addresses both skill differences and differences in disposable income due to heterogeneous energy efficiencies.

 [Hänsel-Optimal Environmental Taxation and Horizontal Equity-400.pdf](#)

2:00pm - 2:22pm

### When I Was Your Age...Generational Effects On Long-Run Household Energy Consumption

**Maria Grazia Paziienza, Rossella Bardazzi**

University of Florence, Italy

Shifting consumption preferences are a crucial characteristic of ageing societies. Energy demand is no exception as several studies have shown that age matters in shaping the use of energy during the life-time. However, energy use may change if two families with the same socio-demographic characteristics live at different times. Our work supports the finding that also generations matter in defining energy use: each generation is characterized by common experiences, aspirations, and practices which define current and future consumption patterns, as highlighted by the energy culture theory (Stephenson et al. (2015)). This paper aims to assess how evolving generational energy cultures may affect the future energy consumption and greenhouse gases emissions, considering the expected changes in the population size, composition and location. We use a pseudo-panel of Italian households to estimate cohort and age effects by macro-area to assess the role of cohort differentials for future energy consumption.

 [Paziienza-When I Was Your AgeGenerational Effects On Long-Run Household Energy Consumption-573.pdf](#)

2:22pm - 2:45pm

### Unilaterally Optimal Climate Policy and the Green Paradox

**Gilbert Kollenbach, Mark Schopf**

University of Hagen, Germany

Consider a Hotelling model with a backstop technology and two groups of countries, a climate coalition and a fringe. The fringe ignores global warming and owns the entire resource stock.

If the coalition takes the fossil fuel price as given, an increase in the marginal climate damage leads to lower fossil fuel imports, leads to more initial resource extraction (weak green paradox) if the coalition's energy demand is perfectly inelastic, and can lead to a higher present value of the intertemporal climate damage (strong green paradox). In an empirically calibrated economy, the weak [strong] green paradox can occur if the coalition's price elasticity of energy demand is smaller than 0.026 [0.036].

If the climate coalition accounts for its influence on the fossil fuel price, an increase in the marginal climate damage can lead to higher fossil fuel imports, and leads to a lower present value of the intertemporal climate damage.

 [Kollenbach-Unilaterally Optimal Climate Policy and the Green Paradox-231.pdf](#)

1:15pm - 2:45pm

## M03: Inequality and Tax Evasion

1:15pm - 1:37pm

### Importing Inequality: Top Income Growth and the Globalization of the Elite

**Arun Advani<sup>1</sup>, Felix Koenig<sup>2</sup>, Lorenzo Pessina<sup>3</sup>, Andy Summers<sup>4</sup>**

<sup>1</sup>University of Warwick; <sup>2</sup>Princeton; <sup>3</sup>Columbia University; <sup>4</sup>LSE

In this paper we study the contribution of migrants to the rise in UK top incomes. Using administrative data on the universe of UK taxpayers we show migrants are over-represented at the top of the income distribution, with migrants twice as prevalent in the top 0.1% as anywhere in the bottom 97%. These high incomes are predominantly from labour, rather than capital, and migrants are concentrated in only a handful of industries, predominantly finance. Almost all (85%) of the growth in the UK top 1% income share over the past 20 years can be attributed to migration.

 [Advani-Importing Inequality-317.pdf](#)

1:37pm - 2:00pm

### Tax Non-Filing and Limited Redistribution

**Tobias Hauck, Luisa Wallosseck**

University of Munich (LMU), Germany

When tax-filing is optional for employees, this may have unintended consequences for effective tax rates. Based on administrative data from Germany, we characterize non-filing taxpayers and show that, though non-filing exists over the entire income distribution, it is especially prevalent at low income levels. As a result, the progressivity of the income tax schedule is attenuated. On average, low income earners over-remitted taxes relative to the statutory schedule while higher incomes reduce their tax burden through filing. Tax non-filing is substantial in monetary terms: German non-filers over-remitted at least 603 million € (949 million €) in personal income tax in 2010 (2014).

 [Hauck-Tax Non-Filing and Limited Redistribution-671.pdf](#)

2:00pm - 2:22pm

### Offshore Tax Evasion and Wealth Inequality: Evidence from a Tax Amnesty in the Netherlands

**Wouter Pieter Herm Jan Leenders<sup>1</sup>, Arjan Lejour<sup>2</sup>, Simon Rabaté<sup>2</sup>, Maarten van 't Riet<sup>2</sup>**

<sup>1</sup>University of California, Berkeley, USA; <sup>2</sup>CPB Netherlands Bureau for Economic Policy Analysis

Exploiting unique datasets covering over 28,000 tax evaders in the Netherlands, we investigate the distribution of tax evasion and its implications for the measurement of wealth inequality. In contrast to Alstadsæter, Johannesen and Zucman (2019), the correction for offshore wealth has only a modest effect on top wealth shares. We show that the distributional pattern of tax evasion depends on the type of tax evasion. We explore a number of explanations to account for the differences in results and caution against projecting distributional patterns in detected tax evasion onto still undetected evasion.

We study the compliance behaviour of tax amnesty participants and document large and sustainable increases in reported wealth of around 60% following amnesty participation. Combined with evidence of only a modest increase in the adoption of tax avoidance strategies, this suggests that amnesty participation can lead to substantial public revenue gains.

 [Leenders-Offshore Tax Evasion and Wealth Inequality-594.pdf](#)

2:22pm - 2:45pm

### In It Together? Inequality and the Joint Distribution of Income and Wealth in Switzerland

**Isabel Z. Martinez**

KOF ETH Zürich, Switzerland

Using tax data from several Swiss cantons, I present a set of empirical facts regarding the distribution of wealth and income in Switzerland. First, I shed light on the composition of wealth and income along the distribution, including the very top. I find substantial heterogeneity in the composition for different population groups. Second, I document the joint distribution of income and wealth, where I find a strong correlation between the two, especially at the very top. Third, wealth mobility is substantially lower than income mobility. Persistence in wealth rank is especially strong in the tails. Fourth, inter-vivos gifts and inheritances substantially increase intragenerational wealth mobility. At the same time, rich individuals are more likely to receive an inheritance and average amounts bequeathed rise with the wealth rank of the heir. This finding suggests a strong correlation between the wealth rank of those leaving and those receiving an inheritance.

 [Martinez-In It Together Inequality and the Joint Distribution-640.pdf](#)

1:15pm - 2:45pm

## M04: Local Public Finance I

1:15pm - 1:37pm

### Evaluating Second Best Tax Reform

**Mindy Herzfeld**

University of Florida Levin College of Law, United States of America

With the passage in 2017 of the most significant change to the U.S. international tax rules since the early days of the income tax in the 1910s, the debate as to the merit of these changes is in full swing. This presents the question of how best, and under what criteria, to evaluate the changes brought about by the tax law. This paper analyzes the tax law changes adopted in the TCJA that impact cross-border investment by measuring them under a "second best" approach – one that acknowledges the trade-offs required in maximizing different goals and making a choice between the inefficiencies introduced by any set of international tax rules. This second best approach allows for a more measured and realistic consideration of the benefits of the new law relative to the possible alternatives, rather than an idealized system.

 [Herzfeld-Evaluating Second Best Tax Reform-253.pdf](#)

1:37pm - 2:00pm

### Structural Shocks and Local Public Finance

**Thomas Brosy, Chiara Ferrero**

University of Michigan, United States of America

We evaluate the effect of the China shock and robotization on local public finance. We find significant differences between the medium-run (7 years) and long run effects (14-17 years). Exposure to Chinese imports leads to a decline in tax revenues and public good provisions in the medium run, but not in the long run. Exposure to robotization is associated with a decline in expenditures and revenues driven almost entirely from lower transfers in the medium run, but we find opposite results in the long run. We show that the coefficients on shocks capture both the direct effect, and the indirect effects, through changes in policy. In addition, they are biased in a multi-period model. We show with a simple model that one needs to take into account the local distribution of income and the relationship between local and state governments for optimal policy.

 [Brosy-Structural Shocks and Local Public Finance-626.pdf](#)

2:00pm - 2:22pm

### Fiscal Response To Revenue Shocks

**Simon Berset, Martin Huber, Mark Schelker**

University of Fribourg, Switzerland

We study the impact of fiscal revenue shocks on local fiscal behavior. We focus on a very volatile revenue source (immovable property gains tax) in the canton of Zurich, Switzerland, and analyze fiscal behavior following large and rare positive and negative revenue shocks. We apply causal machine learning strategies and implement the post-double-selection LASSO estimator to identify the causal effect of revenue shocks on public finances. We show that local policymakers are, on average, fiscally conservative: they smooth positive shocks and mitigate negative ones by spending cuts. Fiscal behavior is partly driven by the organization of the municipal legislative organ and the electoral cycle. The fiscal responses in towns with local assemblies as well as in pre-election years are best described as fiscally conservative. In contrast, the responses in towns with local parliaments and in post-election years are sensitive to revenue fluctuations, i.e., they spend positive and mitigate negative shocks.

 [Berset-Fiscal Response To Revenue Shocks-509.pdf](#)

2:22pm - 2:45pm

### Austerity and Distributional Policy

**Sebastian Blesse<sup>1</sup>, Matteo Alpino<sup>2</sup>, Zareh Asatryan<sup>1</sup>, Nils Wehrhöfer<sup>3</sup>**

<sup>1</sup>ZEW Mannheim, Germany; <sup>2</sup>Bank of Italy; <sup>3</sup>University of Mannheim

What are the effects of austerity on distributional policy? We exploit the autonomy of Italian municipalities in setting non-linear income taxes and the exogenous introduction of a fiscal rule to show that austerity increases income tax progressivity. Consistent with this evidence, we find that in a panel of countries austerity correlates with higher marginal tax rates on top- but not on average-earners. The increase in progressivity in Italy is driven by high-skilled

	<p>mayors, while low-skilled mayors raise taxes uniformly. In the election after the reform, high-skill mayors have higher reelection odds than low-skill mayors, while there was no difference beforehand.</p> <p> <a href="#">Blesse-Austerity and Distributional Policy-123.pdf</a></p>
1:15pm - 2:45pm	<p><b>M05: Pension and Retirement I</b></p> <p>1:15pm - 1:37pm  <b>Personalized Digital Information and Voluntary Savings for Retirement: Evidence from a Natural Experiment</b>  <b>Claudio Daminato<sup>1</sup>, Massimo Filippini<sup>2</sup>, Fabio Haufler<sup>3</sup></b>  <sup>1</sup>ETH Zurich; <sup>2</sup>ETH Zurich, University of Lugano; <sup>3</sup>ETH Zurich</p> <p>Planning for retirement is a complex task and individuals are increasingly responsible for retirement preparedness. We exploit a natural experiment in Switzerland to test whether digital information provision based on a mobile application increases voluntary contributions to defined contribution pension schemes. In contrast to previous studies, we are able to identify who actually takes up the information treatment. Using administrative data from two pension funds, we find that older individuals with higher income and pension wealth are more likely to access the information, planning and decision tool. We document a large heterogeneity in retirement preparedness. Further, we show that the information treatment increases the probability that individuals opt for voluntary savings for retirement.</p> <p> <a href="#">Daminato-Personalized Digital Information and Voluntary Savings-409.pdf</a></p> <hr/> <p>1:37pm - 2:00pm  <b>Claiming Pensions and Retiring from Work with Active and Passive</b>  <b>Rafael Lalive, Arvind Magesan, Stefan Staubli</b>  University of Calgary, Canada</p> <p>We exploit a unique Swiss reform to identify the importance of passivity, claiming social security benefits at the Full Retirement Age (FRA). Sharp discontinuities generated by the reform reveal that raising the FRA while imposing small early claiming penalties significantly delays pension claiming and retirement, but imposing large penalties and holding the FRA fixed does not. The nature of the reform allows us to identify that between 47 and 69% of individuals are passive, while imposing additional structure point identifies the fraction at 67%. An original survey of Swiss pensioners reveals that reference-dependent preferences is the main source of passivity.</p> <p> <a href="#">Lalive-Claiming Pensions and Retiring from Work with Active and Passive-325.pdf</a></p> <hr/> <p>2:00pm - 2:22pm  <b>The Effects of the Increase in the Retirement Age in the Netherlands on Employment and Public Finances</b>  <b>Tilbe Atav<sup>1</sup>, Egbert Jongen<sup>2,3</sup>, Simon Rabate<sup>2,4</sup></b>  <sup>1</sup>Erasmus University Rotterdam; <sup>2</sup>CPB; <sup>3</sup>Leiden University; <sup>4</sup>IPP</p> <p>We study the effects of the recent shift in the statutory retirement age in the Netherlands. The retirement age increased stepwise from 65 years in 2013 to 65 years and 9 months in 2017. We estimate the effects of this reform using differences-in-differences and administrative data on the universe of the Dutch elderly population. We find an increase in the employment rate of 16 percentage points and an increase in participation in social insurance of 20 percentage points for the additional months before the new retirement age. Net budgetary savings are about 80% of direct savings on retirement benefits.</p> <p> <a href="#">Atav-The Effects of the Increase in the Retirement Age in the Netherlands-441.pdf</a></p> <hr/> <p>2:22pm - 2:45pm  <b>Delaying Retirement and Mortality: Evidence from Pension Reforms</b>  <b>Olga Malkova</b>  University of Kentucky, United States of America</p> <p>I evaluate the effect of work in older ages on mortality exploiting a historical reform in Soviet Russia that allowed pensioners to keep a greater share of their pension if they continued working. In response, workers delayed retirement. To estimate the effect of delaying retirement, I exploit a difference-in-differences strategy by comparing cohorts who reached pensionable age before the reform (comparison) to cohorts who reached pensionable age after the reform (treatment). I compare the evolution of mortality rates among these treatment and comparison groups six years before and twelve years after they reached pensionable age. I construct a novel data-set by collecting and digitizing archival data on mortality from the Soviet archives. I find that delaying retirement led to a sustained increase in mortality rates among men, but led to no change in mortality rates among women.</p> <p> <a href="#">Malkova-Delaying Retirement and Mortality-478.pdf</a></p>
1:15pm - 2:45pm	<p><b>M06: Tax Incidence</b></p> <p>1:15pm - 1:37pm  <b>Who Paid the French 75% Tax on Millionaires? Effects on top wage earners and their employers</b>  <b>Malka Guillot</b>  ETH Zürich, Switzerland</p> <p>This paper uses the 75% tax on millionaire employees implemented in France in 2013-2014 to better understand the behavioural responses and the tax incidence of the taxation of top labour earners. Relying on matched employer-employee data and the complete panel of household income tax returns, I document that the tax was largely borne by employers, who paid 80% of the tax, but that the incidence depends on occupations. While footballer players are not affected by the tax, CEOs bear half of the cost of the tax, and top managers supported most of the tax through a decrease in net wage. Taking advantage of the short term nature of the tax, I show that the tax triggered decreases in net wage, compensated by a large and general increase in wage when the tax disappears. This indicates the presence of time-shifting of income.</p> <p> <a href="#">Guillot-Who Paid the French 75 Tax on Millionaires Effects on top wage earners and their employers-443.pdf</a></p> <hr/> <p>1:37pm - 2:00pm  <b>Do Consumers Pay the Corporate Tax?</b>  <b>Martin Jacob<sup>1</sup>, Maximilian A. Müller<sup>2</sup>, Thorben Wulff<sup>1</sup></b>  <sup>1</sup>WHU - Otto Beisheim School of Management, Germany; <sup>2</sup>ESMT Berlin</p> <p>We examine whether consumers bear corporate taxes through higher prices. Using data on the gas prices of German gas stations and local variation in business tax rates, we find that higher business taxes increase consumer prices, indicating corporate taxes fall partly on consumers. Prices increase more strongly when consumer demand is less elastic and local markets are less competitive. The tax incidence on consumers is stronger when corporate tax accounting rules limit expense deductibility or are more strictly enforced. These results suggest that firms reduce their corporate tax burden by shifting taxes to stakeholders, which is rooted both in the underlying economics and tax accounting rules.</p> <p> <a href="#">Jacob-Do Consumers Pay the Corporate Tax-163.pdf</a></p> <hr/> <p>2:00pm - 2:22pm</p>

**The Role of Firms in Transmitting Worker-Level Policies into Wages: Evidence from Payroll Taxes****Paul Michael Kindsgrab**

University of Michigan, United States of America

This paper theoretically and empirically studies the role of firms in transmitting a prominent worker-level policy, payroll taxes, into wages. While in a competitive labor market the incidence of payroll taxes is determined at an aggregate level, in a labor market where firms have some role in wage determination, the incidence is determined at the firm level. The theoretical analysis illustrates the determinants of incidence at the firm level. The empirical analysis presents evidence in favor of systematic variation in payroll tax incidence across firms. Exploiting a reform that increased the payroll tax liability of some workers (treated) but not of others (not treated), this paper shows that the wage responses of workers similarly affected by the reform varied across firms which experienced differential increases in production costs: treated (not treated) workers at high exposure firms experienced wage decreases (increases) relative to treated (not treated) workers at low exposure firms.

 [Kindsgrab-The Role of Firms in Transmitting Worker-Level Policies into Wages-151.pdf](#)

3:00pm - 4:30pm

**Plenary IV, Closing and Awards: Keynote IV: Anna Alberini (University of Maryland), "All Car Taxes are Not Created Equal: Evidence from Germany"**Session Chair: **Katherine Cuff**, McMaster University