Conference Agenda

73rd Annual Congress of the International Institute of Public Finance

Date: Thursday, 17/Aug/2017

3:30pm - 6:00pm IIRC, Floor next to Ito Hall	**Registration (also open on congress days from 8 am on)**
3:30pm - 6:30pm Kojima, Kojima Conference Room	**IIPF Board of Management Meeting I (for Board only)**
7:30pm - 9:30pm Ueno Seiyoken Restaurant	**IIPF Board of Management Dinner (on invitation only)**

Date: Friday, 18/Aug/2017

9:00am - 9:30am
IIRC, Ito Hall

Opening Ceremony
Session Chair: **Joel Slemrod**, University of Michigan

9:30am - 10:30am
IIRC, Ito Hall

Plenary I: Keynote Lecture Takatoshi Ito (Columbia University) on "Government Bonds as Inter-generational Transfers of Wealth and Liabilities: Case of Japan"
Session Chair: **Yukihiro Nishimura**, Osaka University

10:30am - 11:00am
IIRC, BF2 Multi-purpose space

Coffee Break

11:00am - 1:00pm
IIRC, Ito Gallery 1

A01: Corporate Taxation and R&D
Session Chair: **Andreas Lichter**, IZA

11:00am - 11:30am

Corporate Tax Asymmetries and R&D: Evidence from the Introduction of Consolidated Tax Returns in Japan

Masanori Orihara
Waseda University, Japan

Economic theory dating back to Domar and Musgrave (1944, *Quarterly Journal of Economics* 58, 388-422) suggests that the tax treatment of gains and losses can affect incentives for firms to undertake high-risk investments. We take advantage of a 2002 tax reform in Japan as a natural experiment to test this theory. The reform introduced a consolidated taxation system (CTS) which allows business groups to offset gains with losses across firms in their group. Thus, we predict that the CTS can mitigate disincentives to high-risk investments. Using information on R&D as the investment risk measures, we find that the CTS increases R&D, in agreement with Domar and Musgrave (1944). We also provide evidence that the CTS stimulates risk-sharing across group members. These findings suggest that mitigating tax asymmetries is an effective policy both for risk-taking and risk-sharing.

11:30am - 12:00pm

Notching R&D Investment with Corporate Income Tax Cuts in China

Juan Carlos Suarez Serrato, Daniel Xu
Duke University, United States of America

Governments around the world encourage R&D investment based on the belief that economic growth is highly dependent on innovation. This paper analyzes the effects of a large fiscal incentive for R&D investment using a novel link between administrative and survey data of Chinese firms. The fiscal incentive is part of the InnoCom program, which awards a lower average corporate income tax rate to qualifying firms. The program generates a notch, or jump, in after-tax firm values since qualifying firms are required to maintain their ratio of R&D-to-sales above a given threshold. This sharp incentive varies over time and across firm characteristics. We exploit this policy variation to implement a cross-sectional "bunching" estimator that is novel in the R&D literature, to analyze potential evasion responses, and to estimate the effects of R&D on productivity.

12:00pm - 12:30pm

R&D Investments, Innovation and Corporate Taxation: Evidence from German Municipalities

Ingo Isphording[2], Andreas Lichter[2], Max Löffler[3,4], Thu-Van Nguyen[5], Sebastian Siegloch[1,2,4]
[1]University of Mannheim, Germany; [2]Institute of Labor Economics, IZA; [3]University of Cologne, Germany; [4]ZEW Mannheim, Germany; [5]Stifterverband, Germany

Innovation is known to be a key driver of economic growth. At the same time, corporate taxes are oftentimes accused of harming growth by reducing investments in research and development. In this paper, we estimate the effect of corporate taxation on R\&D investment and firms' real innovation activities. We exploit the substantial variation in local business tax rates across German municipalities paired with unique, bi-annual information on firms' R\&D investments and administrative patent data. Using difference-in-difference and event study research designs, we confirm theoretical predictions and find a negative effect of corporate taxation on R\$D investments and the number of patents filed.

11:00am - 1:00pm
IIRC, Seminar Room

A02: Tax Non-Compliance
Session Chair: **Lukas Treber**, University of Hohenheim

11:00am - 11:30am

Ghostbusting in Detroit: Evidence on nonfilers from a controlled field experiment

Ben Shuch Meiselman
University of Michigan, United States of America

In communication with people who owe income tax but fail to file a timely return, what messages from the tax authority are effective for eliciting a return? I assess the efficacy of messages related to penalty salience, punishment probability, compliance cost, and civic pride by evaluating the response to experimental mailings distributed to 7,142 Detroit residents suspected of owing city income tax. Relative to a basic mailing that requested a return, penalty salience mailings that stated the statutory penalty for failing to file a return tripled response rates, increased the number of back-year returns, and raised the fraction of filed returns that admitted tax due. Mailings that enclosed a blank tax return or stated the recipient's federal income also raised response rates, but civic pride mailings did not. I investigate the

impact of treatment mailings on the behavior of untreated neighbors and find no evidence of geographic network effects.

11:30am - 12:00pm

Loss Aversion In Tax Filing

Per Engström[1,3], Katarina Nordblom[2,3], Arnaldur Stefansson[1,3]

[1]Uppsala University, Sweden; [2]Gothenburg University, Sweden; [3]Uppsala Center for Fiscal Studies, Sweden

We study what determines taxpayers' deduction behaviour when filing tax returns. Viewing zero preliminary balance as a reference point, preliminary deficits can be seen as losses that Swedish taxpayers may escape through deductions. Furthermore, taxpayers above the central government threshold, which coincides with a substantial kink in the income tax system, have stronger incentives to claim deductions than those below the threshold. Using regression kink and discontinuity design with individual fixed effects, we study a panel of 4.1 million taxpayers between 1999 and 2006. We estimate a strong causal effect of preliminary deficits on the probability of claiming deductions. On the contrary, the evidence for a kink in deduction probability at the central government threshold is very weak. Estimates are mostly insignificant and much smaller than theory suggests. Therefore, Swedish taxpayers “misbehave” on two separate margins: they are highly reference dependent and do not react to standard monetary incentives.

12:00pm - 12:30pm

Improving Tax Collection by Public Shaming: Evidence from Administrative Tax Data

Lukas Treber, Nadja Dwenger

University of Hohenheim, Germany

Do the public spotlight and social-image concerns provide an effective measure for facilitating tax compliance and tax collection? Many tax authorities actively use public shaming policies, but our knowledge about whether social-image concerns affect behavior outside the laboratory is still very limited. Since 2013, the Slovenian tax authorities regularly publish delinquent tax payers, i.e. taxpayers who don't pay their known tax debt, on their webpage. In this paper, we analyze the effectiveness of shaming penalties with respect to tax payments by using microlevel administrative tax data. We find that tax payers that are more likely to be affected by the introduction of the shaming policy reduce their unpaid debt the most by actively increasing their tax payments to avoid being shamed in the first place.

11:00am - 1:00pm

Kojima, Seminar Room 2

A03: Child health

Session Chair: **Niclas Berggren**, Research Institute of Industrial Economics (IFN)

11:00am - 11:30am

Quiet please! Adverse effects of noise on child development

Kerstin Schneider, Anna Makles

Universit of Wuppertal, Germany

Noise pollution is detrimental to health and to cognitive development of children. This is not only true for extreme levels of noise in the neighborhood of an airport but also to traffic noise in urban areas. Using a census of preschool children, we show that children who are exposed to intensive traffic noise significantly fall behind in terms of school readiness. Being exposed to additional 10 dB(A) compares to about 3 months in kindergarten. We assess the public costs of different abatement instruments and compare the costs to the benefits. It turns out that the commonly used abatement measures like quiet pavement or noise protection walls in densely populated areas of about 3,000 to 5,000 inhabitants per km2 can be cost efficient, even with a conservative assessment of the benefits.

11:30am - 12:00pm

Sober Mom, Healthy Baby? Effects of Brief Alcohol Interventions in Swedish Maternity Care

Erik Grönqvist[1], Anna Norén[2], Anna Sjögren[1,3], Helena Svaleryd[2,3]

[1]IFAU, Sweden; [2]Economics Department, Uppsala University, Sweden; [3]UCLS Uppsala University, Sweden

A large body of research documents the importance of early life conditions for the health and human capital formation of children. The detrimental effects of alcohol exposure in utero are well documented, and therefore identifying effective methods for preventing harmful maternal alcohol consumption is of great importance. We exploit the stepwise introduction of alcohol screening and brief interventions at Swedish antenatal clinics, to evaluate the causal effect of enhanced alcohol prevention on infant health using a difference-in-differences strategy. We find that the program improves infant health measured by prescription of pharmaceutical drugs and hospitalizations during the child’s first year of life. The results suggest that effects are likely driven by changes in maternal behavior after the first trimester and seem to extend beyond the birth of the child.

12:00pm - 12:30pm

Evidence on maternal health from two large Canadian parental leave expansions: When is Enough Too Much?

Pierre Lefebvre, Catherine Haeck, Philip Merrigan

University of Québec at Montréal, Canada

Exploiting unique administrative longitudinal data sets on medical services provided to mothers before- and after- delivery, we estimate the causal effects of two major distinct parental leave reforms on maternal health outcomes, over a period of 5 years postpartum. The long time span of the longitudinal administrative data sets allows an assessment of short-run and long-run effects of maternity leave on mothers’ health. The empirical approach uses a strict regression discontinuity design based on the day of

regime change. The large samples of mothers, who gave birth three months before and three months after the two policy changes (in 2001 and 2006), are drawn randomly from the population of delivering women, all covered by the universal public health care program. We do not find any evidence that the reforms had sizeable impacts health outcomes (physical or of a mental in nature), or costs, or the number of hospitalizations.

12:30pm - 1:00pm

Does Religion Make You Sick? Evidence of a Negative Relationship between Religious Background and Health

Niclas Berggren[1,2], **Martin Ljunge**[1,3]

[1]Research Institute of Industrial Economics (IFN), Sweden; [2]University of Economics in Prague, Czechia; [3]SITE, Stockholm School of Economics, Sweden

We study how religion affects self-assessed health, which is important for both individual wellbeing and productivity. A religious background predicts worse health. The health of the children of immigrants in 30 European countries is related to different measures of religiosity in their mothers' birth countries, which predicts children's religiosity (through transmission in the family). Since the children's health arguably cannot affect the religiosity of their mothers' home countries, we can rule out reverse causality. The negative relationship between religious background and health is robust to accounting for a range of individual and ancestral country characteristics, to excluding the most and least religious ancestral countries and to accounting for systematic differences across ancestral continents. The negative relationship, which we also find in U.S. data, suggests that the positive correlations between health and religiosity in the earlier literature are not due to religion promoting health.

11:00am - 1:00pm
Kojima, Seminar Room 3

A04: Sin taxes

Session Chair: **Nathan Seegert**, University of Utah

11:00am - 11:30am

Taxes in the Cannabis Industry

Nathan Seegert

University of Utah, United States of America

We provide evidence on the impacts of taxation in the legal recreational cannabis industry using a novel data set. The cannabis industry is particularly interesting from a tax perspective because they are taxed unlike any other legal industry. Specifically, because of IRS section 280e, the cannabis industry is unable to deduct costs. This means that a small business with $300,000 in revenues and 250,000 in costs would pay income taxes $300,000 in the cannabis industry and 50,000 in any other industry. This causes the small business in the cannabis industry to face a marginal tax rate of 33 percent and an average tax rate of 27.4 percent, while if in any other industry it would face a 25 percent marginal tax rate and a 16.4 percent average tax rate.

11:30am - 12:00pm

Taxing Finland Into a Thinland? Evidence From a Sweets Tax Reform

Riikka Helena Margareta Savolainen, **Tuomas Kosonen**

Labour Institute for Economic Research, Finland

Increasing obesity problems in many developed countries have led governments to consider different solutions to tackle the problem. We study one such attempt in Finland: a sweets tax introduced in 2011. We have access to a unique product- and week-level data on sales from a large Finnish retailer chain containing the key information on the products and hundreds of millions of observations. Our findings suggest that the tax was fully passed through to the ice cream prices and more than fully passed through to prices of other treated categories. A tax reform in 2014 increased the tax rates for the sugared liquids while the other tax rates were kept constant. For this tax reform, we find evidence of the substitution from the sugared liquids towards the sugar-free ones.

12:00pm - 12:30pm

Alcohol Tax Pass-through in the EU: Evidence from Harmonised Price Indices

Sebastian Georg Kessing, **Aria Ardalan**

University of Siegen, Germany

This study investigates the tax shifting of indirect taxes on beer prices. Employing a unique set of monthly price indices harmonized at the European level allows us to base our study on a panel comprised of all the 28 member states starting from 1996 to the mid of 2016. Results imply under-shifting of value added tax but full-shifting of excise taxes. This is in line with the theory of indirect tax pass-through under imperfect competition.

12:30pm - 1:00pm

Estimating the Effectiveness of Tobacco Tax Reforms in Ukraine to Reduce Tobacco Use and Increase revenue: Limitations and Recommendations

Estelle P. Dauchy[1], **Konstantin Krasovsky**[2]

[1]Campaign For Tobacco Free Kids, United States of America; [2]Ukrainian Institute for Strategic Research of the Ministry of Health of Ukraine.

Ukraine significantly increased tobacco excise taxation since 2008, reducing tobacco products affordability and prevalence, on average. However, because of large price gaps across products, and companies' brand manipulations, the reforms differentially impacted consumers depending on preferences. Impacts on tax revenue and tobacco companies' profits also differed from predictions, due to price competition and changes in other aspects of the tax system.

We estimate the impact of the reforms from 2007 to 2016 on tobacco products' affordability, demand, tax revenue, and price elasticity of demand across groups.

We use variations in the size, time, and design of the reforms across consumers as natural experiments. We apply a probit methodology using individual data on tobacco consumption and health from the ULMS and GATS, and price data from official sources.

We show that the reforms had mixed impacts on prevalence and health across groups, and increases in tax revenue were lower than predictions.

11:00am - 1:00pm

Kojima, Kojima Conference Room

A05: House and land prices

Session Chair: **Kristina Strohmaier**, Ruhr-University Bochum

11:00am - 11:30am

Buy to Let: Endogenous Rents and Investment Buyers in a Housing Search Model

Erlend Eide Bø

Statistics Norway, Norway

Search and matching models have become a popular way to introduce market frictions in housing models. But even standard search and matching models of the housing market often do not reproduce the price volatility found in the data. I suggest adding the possibility of buy-to-let, and let rents be determined endogenously.

Empirical evidence show that rents and the share of second house buyers are positively correlated with housing prices. I make a structural search model that allows for housing owners to buy second houses to let out. The model introduces two mechanisms that affect volatility compared to a model with constant rents and without landlords. First, the endogenous correlation of rents and housing prices makes it attractive for non-owners to buy in "hot" markets. Second, the increased incentives for owners to become landlords in high rent periods amplify the effect of high rents on housing prices.

11:30am - 12:00pm

Ease vs. noise: On the conflicting effects of transportation infrastructure

Gabriel Ahlfeldt[1], Volker Nitsch[2], Nicolai Wendland[3]

[1]London School of Economics, UK; [2]Technische Universität Darmstadt, Germany; [3]Touro College, Germany

Many transport technologies cause a "not-in-my-backyard" (NIMBY) reaction of locals in that they often oppose the nearby location of necessary infrastructure despite benefiting from greater mobility. We employ quasi-experimental research methods to disentangle the offsetting noise and accessibility effects of one technology of mass transit, metro rail, analyzing land price effects of the opening of the first German electrified metro rail line in Berlin in 1902. Examining a long-run micro-geographic data set, we find that, ceteris paribus, a 1 km reduction in distance from the nearest station increases land prices (house prices) by 21% (5%), while a 10 db increase in noise depreciates land prices (house prices) by 5% (1%). We show that these effects are underestimated by 40% (access) to 80% (noise) if they are not estimated conditional on each other.

12:00pm - 12:30pm

Homeownership taxation after the Great Recession onset in Europe: do property taxes compensate for income tax exemptions?

Francesco Figari[1], Gerlinde Verbist[2], Francesca Zantomio[3]

[1]University of Insubria, Italy; [2]University of Antwerp, Belgium; [3]Ca' Foscari University of Venice, Italy

Western countries' income tax system exempts imputed rent, i.e. the return from investing in owner-occupied housing, thus entailing a lack of neutrality with respect to other forms of capital investment. This paper first offers up-to-date aggregate and distributional measures of the homeownership bias arising from the income tax rules prevalent in eight European countries. Second, it provides novel evidence on the extent to which lack of neutrality is mitigated by recurrent property taxation of owner-occupied housing. Results show that a sizeable bias in favour of homeowners is indeed embedded in current income tax systems, and that property taxation represents only a partial correction to this bias. Moreover, this bias is not the same across the income distribution. Such evidence appears valuable in informing the policy debate on the search for new sources of tax revenues, and in particular for those less detrimental to growth and equity.

12:30pm - 1:00pm

Who Benefits from Public Goods? Evidence on Capitalization of Public Good Spending into Property Prices

Kristina Strohmaier[1], Martin Simmler[2], Nadine Riedel[1], Christian Wittrock[1]

[1]Ruhr-University Bochum, Germany; [2]Oxford University Centre for Business Taxation

The aim of this paper is to empirically test for capitalization of public input goods and service spending into business property prices. To address potential endogeneity concerns, public goods and service provision is instrumented with tax revenue shocks induced by changes in the level and assignment of centrally administered tax revenues across municipalities and by subsidy provisions for wind electricity. Our results point to significant capitalization effects. Quantitatively, an increase in public good spending by 10\% raises the price for business property by around 4\%. The analysis is furthermore extended by data on the distance between business properties and two sets of public goods: highways and higher secondary schools. Instrumental variable models are estimated where today's motorways and upper secondary schools are instrumented with historic motorway routes built for military purposes during World War II and geographic proximity to historic abbeys.

11:00am - 1:00pm

Fukutake, Fukutake Learning Studio 1

A06: Local government spending

Session Chair: **Bjarne Strom**, Norwegian University of Science and Technology

11:00am - 11:30am

Partial decentralization and its influence on local governments' spending policy. An analysis of spending for teachers and other resources needed for schools.

Agnieszka Kopańska
University of Warsaw, Faculty of Economic Sciences, Poland

The aim of the paper is to analyze how limits in revenue and spending autonomy of sub-sovereign governments influence these governments' decisions. The analysis is focused on Polish towns current spending for schools in years 2002-2013. It presents that revenue autonomy increases towns spending, however the results are different for various categories of expenditure. The expenses were disaggregated for spending for teachers and other schools' recourses. The first category is the most important in schools' budget and in Poland is strongly (but not completely) determined by central regulations. The second category is more decentralized. It is presented that less decentralized spendings are unified among towns and are higher in more revenue' autonomous towns, the spending autonomy doesn't influence them. In case of more decentralized tasks, differences among municipalities are important, expenditure is influenced by spending autonomy, not by revenue autonomy. These results show that less autonomous tasks crowd out others

11:30am - 12:00pm

Public Procurement versus Laissez-Faire: Evidence from Household Waste Collection

Jaakko Meriläinen[1], **Janne Tukiainen**[2]
[1]Institute for International Economic Studies, Stockholm University; [2]Department of Government, London School of Economics and Political Science and VATT Institute for Economic Research

We document that switching from laissez-faire production to public procurement in residential waste collection in Finland reduces the number of firms active in the local market but also induces a statistically significant and large decrease in unit prices on average. While this outcome seems to be desirable from the citizens' perspective, not all municipalities adopt public procurement. We exploit close elections as a source of exogenous variation to show that political representation of municipal employees in local councils can be one obstacle for the adoption of public procurement.

12:00pm - 12:30pm

Vertical Fiscal Imbalance and the Stabilizing Role of Local Governments

Junxue Jia, **Rong Li**, **Chang Liu**
Renmin University of China, China, People's Republic of

This paper studies the role of local governments in dealing with local economic fluctuations and how vertical fiscal imbalances (VFIs) shape this role. Using a sample of Chinese counties and the instrumental variables strategy, we find that VFIs substantially weaken the stabilizing effect of local government automatic stabilizers and amplify the destabilizing effect of local discretionary fiscal policies. Lack of local information is found to be the key factor that results in this adverse effect of VFIs. Without accurate and timely local information, earmarked specific intergovernmental transfers determined by higher-level governments exhibit a pro-cyclical property and hence weaken the stabilizing role of local governments.

12:30pm - 1:00pm

Local Government Mergers And School Quality

Astrid Marie Jorde Sandsør[2], **Torberg Falch**[1], **Bjarne Strom**[1]
[1]Norwegian University of Science and Technology, Norway; [2]Unviersity of Oslo

Merging local governments is an important policy issue in many countries, yet empirical evidence on the effect of merging and local government size on the production and quality of local public services is scarce. We use the spatial and temporal variation in forced mergers in Norway in a difference-indifferences approach to provide quasi-experimental evidence of the effect on long-run student outcomes, measured by student educational attainment and income in adulthood. We find that local government mergers increase student income by about 4% and educational attainment by about 0.1 years.

11:00am - 1:00pm
Law, Room 101

A07: Public Economics and Development

Session Chair: **François Gerard**, Columbia University

11:00am - 11:30am

Incentives to Business Tax Inspectors: An RCT in the Kyrgyz Republic

Giacomo De Giorgi
GSEM-University of Geneva, Switzerland

Regulatory transparency is key in improving state capacity and foster economic development. Bribes may raise the marginal tax rate of firms, with a distortionary negative impact on investment, productivity and growth of MSEs (Olken and Pande 2012). This projects aims to improve the regulatory transparency of tax collection in the Kyrgyz Republic (KR) where the issues outlined above appear particularly salient. We conceptualize bribes as the equilibrium outcome of an asymmetric information environment where the action of tax inspectors is unobserved to their principal and designed an experiment to test the model and provide incentives to tax collectors so to break the bribing equilibrium.

11:30am - 12:00pm

Taxation and supply chains: evidence from value-added taxes in West Bengal

Lucie Gadenne[1], **Roland Rathelo**[2], **Tushar Nandi**[3]
[1]Warwick University, United Kingdom; [2]Warwick University, United Kingdom; [3]CTRPFP, Kolkata, India

This project considers the extent to which tax systems in developing countries affect the efficiency of production networks (supply chains). In economies characterized by high evasion levels and a large informal sector, value-added taxes (VAT) give firms incentives to trade with other firms with the same tax status, potentially affecting the quality of supplier-buyer matches and the overall efficiency of supply networks in the economy. We use administrative data on transactions between firms in West Bengal, India, and a particularity of the tax system that allows us to observe firms that are 'informal' from the point of view of the VAT supply chain. We find evidence that: i) firms' choice of tax status are linked along the supply chain: firms are more likely to pay VAT if their trading partners are themselves paying VAT ii) the tax system affects supply-buyer matches: firms are more likely to trade with partners that share their tax status.

12:00pm - 12:30pm

Firms and the Racial Wage Gap: Evidence from Brazil

François Gerard
Columbia University, United States of America

We investigate the role of firms for the racial wage gap in Brazil, which is of a similar order of magnitude as the racial wage gap in the US, by combining estimates of firm-specific wage effects (a la AKM) with information about the racial composition of each firm. We find that the pay premiums offered by firms can account for 40%-55% of the racial wage gap unexplained by differences in education levels or geographic location. We then show how the firm contribution to the racial wage gap decomposes between an assortative matching component, a hiring discrimination component, and a pay discrimination component.

12:30pm - 1:00pm

Heard it through the Grapevine: A Randomized Experiment Assessing Direct and Network Effects of Tax Treatment Strategies

William Boning[1], John Guyton[2], Ronald Hodge[2], Joel Slemrod[1]
[1]University of Michigan, USA; [2]Internal Revenue Service, USA

In this paper we address the direct and network deterrent effects of a pair of tax enforcement actions by employing a randomized. We develop methods to understand how businesses at risk of being delinquent in their tax remittances for IRS Form 941 (withholding and social insurance) respond to two distinct aspects of interventions: (1) soft letters versus Revenue Officer visits and (2) direct versus network effects operating through geographic and tax-preparer links. We find large immediate effects of the Revenue Officer visits that persist for at least four quarters thereafter and are transmitted through tax-preparer networks. Although the per-firm-link network effects are much smaller than the direct effects, their aggregate effect is non-trivial. We find a positive, but substantially smaller and less persistent, direct effect of the soft-letter treatment but no evidence of network effects of this treatment.

11:00am - 1:00pm
Law, Room 102

A08: Development and Growth

Session Chair: **Alexander Kemnitz**, TU Dresden

11:00am - 11:30am

Should The Global Community Welcome Or Mourn New Oil Discoveries?

Sylwia Bialek[1], Alfons Weichenrieder[2]
[1]Goethe University Frankfurt, Germany; [2]Goethe University Frankfurt, Germany

Oil discoveries affect global well-being through multiple channels. Focusing on the change in pollution, consumption and extraction cost paths, we build a multi-period model that allows us to assess whether oil windfalls may be welfare-enhancing. The assessment depends on the quality of the discovered resource, expressed as the extraction cost. Our findings suggest that even when faced with high environmental externalities and no internalization mechanism for them, new oil finds can be conducive to welfare. However, there may be no simple threshold below which the discovery is beneficial but rather multiple intervals into which the extraction costs may fall.

11:30am - 12:00pm

The Future of Human Health, Longevity, and Health Costs

Sebastian Böhm[1], Volker Grossmann[1], Holger Strulik[2]
[1]University of Fribourg; [2]University of Goettingen

Medical advances greatly enhance longevity but may threaten the sustainability of health care systems in its current form. In this paper, we investigate the future of human longevity, morbidity and health costs under different policy regimes. We propose a novel, multi-period overlapping generations model with endogenous medical R&D and endogenous survival that is closely associated with morbidity. We capture biologically founded ageing based on gerontology research in order to calibrate the model for the UK. Our analysis suggests substantial increases in human longevity under the current policy regime that goes along with both reductions in morbidity and a rising health expenditure share in GDP. Following instead the goal of stabilizing the health expenditure share by extending health care rationing has sizable effects on morbidity and longevity in the longer run, associated with reduced medical R&D incentives. The implied welfare effects may be substantially negative particularly for future generations.

12:00pm - 12:30pm

Economic Development, Democratic Institutions, and Repression in Non-democratic Regimes: Theory and Evidence

Alexander Kemnitz[1,2], Martin Rößler[1]
[1]TU Dresden, Germany; [2]CESifo, Germany

This paper analyzes how a non-democratic government utilizes both repression and the implementation of democratic institutions in order to stay in office. We find this government to react differently to economic development in terms of income and education: A higher income level reduces democracy, whereas more education leads not only to more democratic institutions but also to more repression. These theoretical findings are corroborated by panel data regressions.

11:00am - 1:00pm

Fukutake, Fukutake Learning Studio 2

A09: Income inequality

Session Chair: **Daniel Waldenström**, Economics

11:00am - 11:30am

Finnish Top Income Shares And Mobility By Gender: A Peek Into Unique Tax Registers

Terhi Helena Ravaska

Labour Institute for Economics Research/University of Tampere, Finland

The top income shares have received much attention in recent years in inequality research but the top incomes from the gender perspective is still understudied. This study tackles this topic and explores the female representation, income composition, income mobility and permanent income inequality by exploiting a unique Finnish tax register data without top coding for the period 1995-2012. The study shows that the proportion of women in the 1 % has increased over time. The income composition at the top is more heavily dependent on capital for women than men and there are no significant changes in the mobility neither for women or men. The fitted Pareto distribution done separately for both genders show that glass ceiling in the very top has got thinner in Finland over time.

11:30am - 12:00pm

Fiscal federalism and income inequality: an empirical analysis for Switzerland

Lars P. Feld[1], Christian Frey[2], Christoph A. Schaltegger[2,3], Lukas A. Schmid[2]

[1]University of Freiburg i.B., Walter Eucken Institute; [2]University of Lucerne; [3]University of St. Gallen

Despite being affected similarly by global trends industrial countries have revealed significant differences in the development of the distribution of incomes over the past few decades. The aim of this paper is to assess how fiscal federalism as an institutional factor may influence inequality and redistribution. Given that it is difficult to infer a theoretical prediction of the relationship we rely on the ideal institutional environment to empirically study this issue in Switzerland. By employing Swiss federal tax statistics we are able to consistently estimate income inequality before as well as after taxes within Cantons back to World War II. According to our findings revenue decentralization and fragmentation significantly reduce inequality in both gross and disposable incomes. It is, however, crucial to account for the federal instruments' mutual interdependence.

12:00pm - 12:30pm

Watching in your partner's pocket before saying ``Yes!'' Assortative mating and income inequality

Carlo Fiorio[1], Stefano Verzillo[2]

[1]University of Milan, Italy; [2]Joint Research Center, European Commission

Standard measures of assortative mating by income levels of spouses at the year of wedding are flawed by endogeneity issues. By using a unique administrative data on a large region in Italy we provide the first measure of assortative mating on labor income levels. The administrative nature of our data (tax records) and the modeling choice based on percentile groups reduce measurement error to the minimum. The availability of labor income for both spouses up to three years before wedding is used to account for the simultaneity bias.

Counterfactual analysis on the effect of assortative mating by income levels on income inequality suggests that if love was the unique driver of marriage and falling in love was a randomly allocated event, the distribution of family income could largely vary, even reducing the Gini index by half.

12:30pm - 1:00pm

Tax Progressivity and Income Inequality: Evidence from Tax Reforms

Enrico Rubolino[1], Daniel Waldenström[2]

[1]Uppsala University; [2]Paris School of Economics, Research Institute of Industrial Economics

We study the link between tax progressivity and top income shares. Using variation from large-scale tax reforms in Western countries during the 1980s and 1990s, we identify effects using the novel synthetic control group methodology. Our findings show large positive and lasting impacts on income shares of the very top groups while earners in the bottom half of the top decile were almost unaffected by the reforms. We find that cuts in top marginal tax rates and reduced overall progressivity contributed to this outcome. Searching for mechanisms, real income responses as measured by growth in aggregate GDP per capita, number of registered patents and tax revenues seem unrelated to the reforms. Instead, tax avoidance behavior related to the management of capital incomes in the very income top appears to better able to account for these findings.

11:00am - 1:00pm

Fukutake, Fukutake Learning Studio 3

A10: Mortality and Public Policy

Session Chair: **Kai Brueckerhoff**, Max Planck Institute for Tax Law and Public Finance

11:00am - 11:30am

Differential Mortality and the Progressivity of Social Security

Shantanu Bagchi

Towson University, United States of America

There is a well-established negative correlation between earnings and mortality risk. Using a general-equilibrium macroeconomic model calibrated to the U.S. economy, this paper examines how this correlation interacts with Social Security's benefit-earnings rule. The paper shows that the welfare ranking of alternative benefit-earnings rules is sensitive to differential mortality risk. While a more progressive

benefit-earnings rule provides increased insurance for households with unfavorable earnings histories, their relatively high mortality risk heavily discounts the expected utility from old-age consumption. I find that the latter effect dominates: welfare is maximized with a fully proportional (linear) benefit-earnings rule in the presence of differential mortality.

11:30am - 12:00pm

The Increasing Longevity Gap By Lifetime Earnings And Its Distributional Implications

Holger Lüthen[1,2], **Daniel Kemptner**[1], **Peter Haan**[1,2]

[1]FU Berlin, Germany; [2]DIW Berlin, Germany

We use social security records from the German Pension Insurance to document the heterogeneity in life expectancy by lifetime earnings and we analyze how this longevity gap has evolved over cohorts. We provide evidence that the earnings-related longevity gap is increasing over cohorts. This increase is especially pronounced for men, smaller for East German women, and is not present for West German women. We then disentangle the role of increasing earnings inequality over cohorts and the effect of changes in the earnings gradient on life expectancy. Finally, we study the distributional implications of the increasing longevity gap for the pension system.

12:00pm - 12:30pm

On The Relationship Between Contribution Duration And Age At Death – Empirical Evidence From The German Public Pension System

Natalie Laub

University of Freiburg, Germany, Germany

Raising the regular retirement age, and thus prolonging one’s working life, was one of the most prevalent measures in past pension reforms. However, concerns are being raised that this might cause redistribution due to life expectancy being driven by socio-economic factors. Most studies focus on the relationship between income and life expectancy. The length of contributions usually enters estimations as an additional explanatory variable and its effect is assumed to be linear. This paper investigates whether the relationship between contribution duration and age at death could also be non-linear. Results for the German public pension system show that a non-monotonic relationship seems to exist, being positive in most cases.

12:30pm - 1:00pm

Death and Taxes: Mortality's Implications for Optimal Tax Policy

Kai Brueckerhoff[1], **Aart Gerritsen**[2]

[1]Max Planck Institute for Tax Law and Public Finance, Germany; [2]Erasmus University Rotterdam, Netherlands

We determine optimal labor-income and capital taxes in a world with both income inequality and heterogeneous mortality risk. We show that optimal tax policy crucially depends on the nature of information asymmetries between consumers and annuity providers. In the absence of any information asymmetries, it is optimal to tax capital when mortality risk is negatively correlated with earning ability. The same conclusion holds when annuity providers only observe individuals' income. However, when annuity providers only observe individuals' deaths - or when functioning annuity markets are absent - the sign of the optimal capital tax is ambiguous as the government might want to subsidize capital to alleviate adverse selection problems. While we obtain the usual results for optimal labor-income taxes in the absence of information asymmetries (no distortion at the top; downward distortions at the bottom), labor-income taxes should be adjusted in the presence of adverse selection problems in the annuity market.

11:00am - 1:00pm
Law, Room 201

A11: FDI and profit shifting

Session Chair: **Ron Davies**, University College Dublin

11:00am - 11:30am

Profit shifting with loss-making MNE affiliates

Michael Stimmelmayr, **Marko Koethenbuerger**, **Mohammed Mardan**

KOF, D-MTEC, ETH Zurich, Switzerland

Despite the prominence of loss-making affiliates in MNEs, the implication of these losses for transfer pricing have, until recently, hardly been considered in the literature. We set up a model of transfer pricing with loss-making affiliates and analyze the effects of transfer pricing on affiliate investment and government policy. We show that transfer prices might be set to shift income towards the high-tax jurisdiction, as measured by the statutory tax rate differential. Hence, the latter might not be a sufficient statistic for transfer pricing incentives if loss-making affiliates exist. Further, transfer pricing might also promote investment incentives in the low-tax and the high-tax jurisdiction. This finding contrasts existing literature where transfer pricing incentives are insulated from investment incentives. Finally, we highlight the implications of our findings for the efficiency of government policy.

11:30am - 12:00pm

As it is in (Tax) Heaven: Market Attitudes towards Secrecy Shopping

Aija Polakova[1], **Evelina Gavrilova-Zoutman**[2]

[1]Norwegian School of Economics, Norwegian Centre for Taxation (NoCeT); [2]Norwegian School of Economics, Norwegian Centre for Taxation (NoCeT)

We study asset price reactions to news on firms' decisions to acquire affiliates located in known secrecy and tax havens. Our sample consists of data on the S&P 500 companies in the period 1997 - 2016. Results indicate a 2 to 4 percent increase in stock prices following acquisition deal news regarding affiliates in tax and secrecy havens. We attempt to disentangle secrecy from tax planning, and find that the positive effect is driven by low tax rates. In addition, for the top 50 largest multinational firms we find that the share prices increase after signing of tax information exchange agreements between the United States and haven countries, consistent with a positive reaction to increased transparency.

12:00pm - 12:30pm

Optimal Tax Routing: Network Analysis of FDI diversion

Arjan M. Lejour[1,2], **Maarten van 't Riet**[1]
[1]CPB Netherlands Bureau for Economic Policy Analysis, Netherlands, The; [2]Tilburg School for Economics and Management, Tilburg University

The international corporate tax system is considered as a network and, just like for transportation, 'shortest' paths are computed, minimizing tax payments for multinational enterprises when repatriating profits. We include corporate income tax rates, withholding taxes on dividends, double tax treaties and the double taxation relief methods. We find that treaty shopping leads to an average potential reduction of the tax burden on repatriated dividends of about 6 percentage points. Moreover, an indicator for centrality in the tax network identifies the United Kingdom, Luxembourg and the Netherlands, amongst others, as the most important conduit countries. Tax havens do not have a crucial role in treaty shopping. In the regression analysis we find that the centrality indicators are robustly significant explanatory variables for bilateral FDI stocks. This also holds for our treaty shopping indicator.

12:30pm - 1:00pm

The Impact of Taxes on the Extensive and Intensive Margins of FDI

Ron Davies, **Iulia Siedschlag**, **Zuzanna Studnicka**
University College Dublin, Ireland

The design of optimal tax policy, especially with respect to attracting FDI, hinges on whether taxes affect multinational firms at the extensive or the intensive margins. Nevertheless, the literature has not yet explored the simultaneous impact of taxation on FDI on these two margins. Using firm-level cross-border investments into Europe during 2004-2013, we do so with a Heckman two-step estimator, an approach which also allows us to endogenize the number of investments and include home country and parent firm characteristics. We find that taxes affect both margins, particularly for firms that invest only once, with 92 percent of tax-induced changes in aggregate inbound FDI driven by movements at the extensive margin. In addition, we find significant effects of both home country and parent firm characteristics, pointing towards the granularity of investment decisions.

11:00am - 1:00pm
Law, Room 301

A12: Education and non-cognitive skills

Session Chair: **A. Abigail Payne**, Melbourne Institute, U of Melbourne and McMaster University

11:00am - 11:30am

The Rising Return to Noncognitive Skill

Martin Nybom[1], **Per-Anders Edin**[3], **Peter Fredriksson**[2], **Björn Öckert**[1]
[1]IFAU, Sweden; [2]Stockholm University, Sweden; [3]Uppsala University, Sweden

We examine the changes in the relative rewards to cognitive and non-cognitive skill during the time period 1991-2013. Using unique administrative data for Sweden, we document a secular increase in the returns to non-cognitive skill. This increase occurs primarily in the private sector, among white-collar workers, and at the upper-end of the wage distribution. We also show that this increase is directly tied to an increase in the valuation of non-cognitive skills in promotion to leadership positions.

11:30am - 12:00pm

Taxing Cognitive and Non-Cognitive Skills

Marcelo Arbex[1], **Enlinson Mattos**[2]
[1]University of Windsor, Canada; [2]Sao Paulo School of Economics, Fundacao Getulio Vargas.

We study optimal paternalistic policies when agents differ in their cognitive and non-cognitive abilities. In our model, cognitive skills are associated with agent's ability to accumulate human capital at a low leisure cost. We model non-cognitive skills along the lines of the present biased preferences literature, as these skills might affect current decisions and their future consequences and outcomes. We characterize three policy packages that implement the first-best social optimum, namely, policies proportional to (i) physical capital, health capital and human capital stocks, (ii) the consumption of unhealthy good, health care services and studying time, and (iii) the stock of physical capital and earnings. If type-specific policies are not feasible, we also characterize (constrained) first-best optimal paternalistic policies, i.e., a single policy package for all agents. We illustrate numerically the relevance of agents' skills for the determination of optimal policies.

12:00pm - 12:30pm

Prosociality Spillovers of Working in Groups

Benjamin Michael Marx[1], **Michalis Drouvelis**[2]
[1]U. of Illinois at Urbana-Champaign, United States of America; [2]U. of Birmingham, United Kingdom

Group compensation and public announcement of performance are two common aspects of working in groups. We randomly assign these aspects to real-effort tasks. Following task completion and payment, subjects are given an unexpected opportunity to donate to a local charity. Group compensation and public announcement of performance have little effect on work performance but striking spillover effects on subsequent donations. Public announcement of performance doubles the amount donated to charity, and group compensation significantly increases the share donating. The results suggest that interpersonal interactions in the workplace environment may have important spillover effects on prosocial behavior outside of work.

12:30pm - 1:00pm

Big Fish, Small Pond: The Effect of Rank at Entry on Post-Secondary Outcomes

A. Abigail Payne[1,3], **Justin Smith**[2]

[1]Melbourne Institute of Applied Economic & Social Research, University of Melbourne, Australia; [2]Department of Economics, Wilfrid Laurier University, Canada; [3]Department of Economics, McMaster University, Canada

We study whether a student's rank at entry to a post-secondary institution affects their later educational outcomes. Research has shown that among grade school and high school students, a higher position in the ability distribution positively affects outcomes. Little is known, however, about the effect at the post-secondary level, despite rank being an important consideration when choosing a university. Using unique student-level administrative data from four Canadian universities, we show that, holding constant entry average, being ranked higher compared to others who enter the same program in the same year lowers the probability of switching programs after year 1, but has very small or zero effects of grade point averages, credit completion, departures, and degree completion. Our results suggest that being the big fish in the small pond does not produce significant advantages in higher education.

11:00am - 1:00pm
Law, Room 203

A13: Norms and beliefs

Session Chair: **Takeshi Miyazaki**, Kyushu University

11:00am - 11:30am

Just Income Taxation -Does Equal Sacrifice Means Fair Perceived Income Taxation

Maria Metzing
DIW Berlin, Germany

I use a question item from the German Socioeconomic Panel (SOEP) to obtain information on what amount of taxes individuals consider as fair. In the first step, I examine which kind of individuals are satisfied with their wage and who are not. In the second step, I examine the characteristics of individuals which prefer either a higher or a lower tax burden. Third, I estimate new tax schedules with regard to the Equal Sacrifice theory and analyze if individuals preference is a tax schedule with the objective function of Equal Sacrifice. I find that individuals, who think that income is not fair, show some destinct features.The same holds for the second research step. Especially, characteristics as gender, age, education, material status, political position and wage indicate different probability for their opinion. Third, I found that none of the three Equal Sacrifice variations fits perfectly with the data.

11:30am - 12:00pm

Economic Experiences, Target-specific Beliefs and Demands for Redistribution

Christina Fong[1], Ilpo Kauppinen[2], Panu Poutvaara[3]
[1]Carnegie Mellon University; [2]VATT Institute for Economic Research; [3]University of Munich, Ifo Institute, CESifo, IZA

We examine general and target-specific beliefs about the determinants of low and high incomes, and how these affect redistributive preferences. High incomes are attributed to own effort to a larger extent than low incomes are blamed on the lack of effort. Beliefs about causes of low incomes matter more for preferences to help the poor, and beliefs about high incomes for taxing the rich. Those highlighting effort support less redistribution. We also examine the effects of past experiences, like father's unemployment. It is associated with lower perceived role of effort and higher support for transfers to those with low incomes.

12:00pm - 12:30pm

Ethnic Divisions and Local Public Goods Provision: Natural Experimental

Takeshi Miyazaki
Kyushu University, Japan

Economics scholars have paid attention to the relationship between ethnic diversity and economic and government performance such as investment, economic growth, political stability, and the quality of government. Most of them state that correcting for endogeneity in estimation of the relationship is crucial because ethnic diversity would be the result of poor economic or political outcomes. The present study attempts to cope with the potential for endogeneity by using boundary reforms of Japanese cities. It explores how ethnic fractionalization and polarization affect public goods provision using merged city data of Japan in 2010. The following findings are obtained. First, ethnic fractionalization and polarization have no significant effects on provision of local public goods. Second, the existence of endogeneity in estimation of the ethnicity-public goods relation biases estimates toward the direction where the negative (positive) association between ethnic diversity and productive (non-productive) public goods provision appears.

11:00am - 1:00pm
Law, Room 305

A14: Public investment

Session Chair: **Tomomi Miyazaki**, Kobe University

11:00am - 11:30am

Changing the Climate for Banking: The Economic Effects of Credit in a Climate-Vulnerable Area

Daniel Da Mata, Guilherme Resende
Institute for Applied Economic Research, Brazil

We exploit plausibly exogenous variation in credit policy to study the real effects of credit. Producers in the semiarid, Brazil's poorest and driest region, are eligible to apply for subsidized, abundant credit provided by a state-owned bank. Based on objective climate criteria, the federal government added new localities to the Brazilian semiarid. We show that the state-owned bank increased risky loans in the added localities in accordance with legislation, but we find neither a crowding-out of credit to other banks nor a rise in delinquency rates. Smaller-sized low-income producers have invested the cheaper credit to expand climate resilient livestock.

11:30am - 12:00pm

The Macroeconomic Effects of Public Capital Stock in Korea: DSGE model analysis

Deockhyun Ryu[1], **Jong-suk Han**[2]
[1]Chung-Ang university, Korea, Seoul, South Korea; [2]Korea Institute of Public Finance(KIPF), Sejong, South Korea.

The public capital stock in Korea is estimated to 60% of GDP in Korea (as of 2002) compared to the developed countries such as the US (59%) and Japan(58%). The macroeconomic effects of the public capital are expected to be significant. However, the analyses and debates of the effects of public capital stocks on productivity and economic growth are rarely investigated so far. The public capital stock is formed by public investment flows and is closely related to the government's fiscal policy frame work. Therefore, analyzing the macroeconomic impact of public capital stock on economy implies a policy evaluation of government investment expenditures This study aims to analyze the macroeconomic effects of capital stocks in the government sector by a DSGE model approach. In addition, the study also aims to analyze the macroeconomic effects of capital stocks in the government sector by different financing method.

12:00pm - 12:30pm

Spatial crowding-out and crowding-in effects of government spending on the private sector in Japan

Yoshito Funashima, **Yoshihiro Ohtsuka**
Tohoku Gakuin University, Japan

This paper proposes an empirical fiscal spillovers model to investigate spatial crowding-out and crowding-in effects of government spending on the private sector in Japan. We demonstrate that there exist spatial autocorrelations in the private economic variables, intensifying crowding-out effects of government consumption. On the other hand, when such spatial spillovers are controlled for, crowding-out effects of public investment are shown to be negligible. Further, our subsample analysis reveals some noticeable regional differences such as partial crowding-in effects of government consumption on private consumption in Kanto (the Tokyo Metropolitan area) and those of public investment on private consumption in Shikoku (a rural island). Our findings imply that the policymakers should take into account such spatial spillovers and regional differences in order to rejuvenate the regional economy with enlivening and without harming the private demand.

12:30pm - 1:00pm

Public Investment and Stock Prices: The Case of Japan

Kazuki Hiraga[1], **Masafumi Kozuka**[2], **Tomomi Miyazaki**[3]
[1]School of Political Science and Economics, Tokai University; [2]Faculty of Economics, University of Marketing and Distribution Sciences; [3]Graduate School of Economics, Kobe University/Department of Economic, University of California, Irvine

This research examines the effects of public infrastructure capital on asset prices in Japan over the period 1983:Q1–2008:Q4. The empirical results show that public infrastructure capital does not forecast stock returns and total factor productivity by the Granger causality test, and the contribution of public investment to stock returns is small based on variance decomposition using the Factor-Augmented vector autoregressive model. Our empirical evidence on the post high-growth era in Japan suggests that public infrastructure investment cannot be expected to play a key role in revitalizing capital markets.

1:00pm - 2:00pm **Lunch**

IIRC, BF2 Multi-purpose space

2:00pm - 4:00pm **B01: Banking regulation**

Law, Room 101

Session Chair: **Yukihiro Nishimura**, Osaka University

2:00pm - 2:30pm

Regulatory Arbitrage and the Efficiency of Banking Regulation

Pierre Boyer[1], **Hubert Kempf**[2]
[1]Ecole polytechnique, France; [2]Ecole normale superieure Paris Saclay, France

Abstract We study the efficiency of banking regulation under financial integration. Banks freely choose the jurisdiction where to locate their activities and have private information about their efficiency level. Regulators non-cooperatively offer any regulatory contract that satisfies information and participation constraints of banks. We show that the unique Nash equilibrium of the regulatory game is a simple pooling contract: financial integration is characterized by the inability for regulators to discriminate between banks with different efficiency levels. This result is driven by the endogenous restriction caused by regulatory arbitrage on the capacity of regulators to use several regulatory instruments.

2:30pm - 3:00pm

The Taxation and Regulation of Banks

Michael James Keen
IMF, United States of America

This paper considers the structure, appropriate rate, and revenue yield of corrective taxation of financial institutions addressed to two externalities, consequent on excessive risk-taking: those that arise when such institutions are simply allowed to collapse, and those that arise when, to avoid the harm this would cause, their creditors are bailed out. It also asks whether corrective taxation or a regulatory capital requirement is the better way to address these concerns. The results suggest a potential role for taxing bank borrowing, perhaps as an adjunct to minimum capital requirements, at marginal rates that rise quite sharply at low capital ratios (but are likely lower when the government cannot commit to its bailout policy), reaching levels higher than those of the bank taxes so far adopted or proposed.

3:00pm - 3:30pm

Should Transactions Services be Taxed at the Same Rate as Consumption?

Benjamin Lockwood, **Erez Erez Yerushalmi**
Uni of Warwick, United Kingdom

This paper considers the optimal taxation of transactions services, when the household can choose between cash and bank deposits. We analyze a version of the Freeman-Kydland model with a fully specified banking sector, and where cash has an "inconvenience cost" in the form of a time input. We show that while cash should be untaxed, the return on bank deposits should be should be taxed at a positive rate, reflecting the fact that deposits, by economizing on household time, are complementary with leisure in household production, but that this rate is generally different to the optimal rate of tax on consumption. A calibrated version of the model suggests that this transactions tax, and thus the tax on bank value-added, should be considerably lower than the tax on consumption.

3:30pm - 4:00pm

The Political Economy of the European Banking Union

Andreas Haufler
University of Munich, Germany

We model a banking union of two countries whose banking sectors differ in their average probability of failure. The two countries face (i) a regulatory decision of which banks are to be shut down, and (ii) a financial decision of whether to bail out some of the banks that fail despite regulation. Failing banks cause negative spillovers in both countries unless they are saved. In our benchmark model the two countries always agree on a centralized regulation policy, but a centralized bailout policy results in the political equilibrium only when international spillovers are strong. A decentralized bailout regime is more likely when failure probabilities in the two banking sectors differ only moderately, so that a larger share of banks from the weaker banking sector passes the joint regulation stage.

2:00pm - 4:00pm
Law, Room 102

B02: Trust and Charity

Session Chair: **Justin Smith**, Wilfrid Laurier University

2:00pm - 2:30pm

The Determinants of Trust in Public Institutions: The Police

Ross David Hickey[1], **Anke Kessler**[2]
[1]University of British Columbia - Okanagan; [2]Simon Fraser University

A wealth of evidence in the economic literature suggests that trust, broadly defined, affects economic outcomes and wellbeing. We extend the current knowledge of trust in public sector institutions, by focusing on the police. We show that experience is a primary determinant of trust in the police. In particular, experiencing discrimination when dealing with the police reduces the probability that one trusts the police by 20 per cent. Using data from the Canada Election Study, the Canadian General Social Survey, and the World Values Survey we show that there is little evidence of culturally transmitted trust in the police among Canadians. We also find large differences in trust in the police across locations in Canada and between first- and second-generation immigrants to Canada, further strengthening the case for the primacy of experience over culture as a driving force of trust in public institutions.

2:30pm - 3:00pm

Giving it Away: Charitable Donations to Overseas Disasters

Rose Anne Devlin[1], **Dane Rowlands**[2]
[1]University of Ottawa, Canada; [2]Carleton University, Canada

Using the Canadian Survey of Giving, Volunteering and Participating (2010) we examine donations to international causes, and responses to natural disasters. The voluntary contributions model provides some guidance as to the factors that affect donations abroad. Whereas giving to international causes in general can be considered as part of an individual’s planned giving strategy and can be partially understood within this voluntary contribution framework, the same cannot be said for responses to pleas for disaster assistance. Responding to natural disasters seems to be more of an unplanned event, with individuals who are not normally associated with increased giving, like the unemployed and new immigrants, responding more strongly than others.

3:00pm - 3:30pm

The Impact of Government Funded Initiatives on Charity Revenues

Bradley Minaker[2], **A. Abigail Payne**[1,2]
[1]Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Australia;
[2]Department of Economics, McMaster University, Canada

When a charity receives government funding does it undo the benefits of that funding by changing its behavior for the collection of revenues from other sources? Do donors change their behavior? In recent years the classic question of understanding crowd-out from the charity perspective has been extended by numerous authors. This paper explores the extent to which a government funded program for new charity initiatives crowds out revenue from other sources. We are able to explore more than 11,000 applications by more than 4,500 charities for funding over a 10-year period. We demonstrate that the revenues of the charity increase approximately 16% and that the effect of the grant extends several years. While further exploration is warranted, the preliminary results suggest a change in charity behavior that potentially may dampen the full effect and/or persistence of the government funding.

3:30pm - 4:00pm

The Effect of Tax Price on Donations: Evidence from Canada

Ross Hickey[2], **Bradley Minaker**[3], **Abigail Payne**[5], **Joanne Roberts**[4], **Justin Smith**[1]

[1]Wilfrid Laurier University, Canada; [2]University of British Columbia Okanagan, Canada; [3]McMaster University, Canada; [4]Yale-NUS College, Singapore; [5]Melbourne Institute of Applied Economic and Social Research, AUstralia, and Mc Master University, Canada

What is the tax price elasticity of charitable donations? While many countries provide tax policy that encourages donations, estimating the responsiveness of charitable donations to changes in benefits accruing to donors is difficult because the tax price and donations simultaneously depend on an individual's income. We use a large administrative dataset from Canada, the Longitudinal Administrative Database (LAD) to estimate the tax price elasticity of donations. Our estimation strategy uses instrumental variables with fixed effects. Focusing on the time period for which the tax price of giving is a linear function of provincial and federal tax credit rates we use variation in the marginal income tax rates to instrument for the tax price. We estimate that the tax price elasticity of charitable donations is -0.6, implying that donations are inelastic with respect to the tax price. We discuss our findings in light of the limitations of our estimator, and the possible policy recommendations.

2:00pm - 4:00pm
Law, Room 201

B03: Environmental taxation

Session Chair: **Tuomas Kosonen**, Labour Institute for Economic Research

2:00pm - 2:30pm

Tax incidence in the fuel market: Evidence from station-level data

Jarkko Harju[1], Tuomas Kosonen[2], Marita Laukkanen[3]

[1]VATT Institute for Economic Research, Finland; [2]Labour Institute for Economic research; [3]VATT Institute for Economic Research, Finland

Most European countries tax road traffic fuels heavily, for both fiscal and environmental reasons. Surprisingly little empirical work has addressed the extent to fuel taxes are passed to consumer prices. This paper examines the pass-through of fuel taxes to retail prices in Finland following a substantial tax reform in 2012 and smaller tax increases in 2008 and 2014. We use a detailed data set of prices at the gas-station level. The estimated pass-through rate is approximately 70% for a large nominal tax increase in 2012, and full pass through for smaller tax increases. This suggest a clear asymmetry in price responses by the size of the tax change. We find that the supply side anticipation at the time of large tax change causes this asymmetry.

2:30pm - 3:00pm

Who Bears the Burden of Energy Taxes? The Role of Local Pass-Through

Samuel Stolper

University of Michigan

The pass-through of energy taxes to final consumers is generally assumed to be uniform across the affected population. Using data from the Spanish retail automotive fuel market, I show that, in fact, variation in local market conditions drives significant heterogeneity in pass-through, and ignoring this can lead to mistaken conclusions about the distributional impacts of energy taxes. Event study and difference-in-differences regression reveal 100% pass-through of state-level diesel taxes *on average*; however, station-specific pass-through rates range from at least 70% to 120%. Greater market power and greater wealth are both strongly associated with higher pass-through. In particular, pass-through rises monotonically in area-average house prices. While a conventional estimate of the Spanish diesel tax burden suggests roughly equivalent incidence across the wealth distribution, overlaying the effect of heterogeneous pass-through reveals the tax to be unambiguously progressive.

3:00pm - 3:30pm

Missing Miles: Avoidance and Evasion Responses to Car Taxes

Jarkko Harju[1], Tuomas Kosonen[2], Joel Slemrod[3]

[1]VATT Institute for Economic Research, Finland; [2]Labour Institute for Economic Research, Finland; [3]University of Michigan

We study tax avoidance and evasion responses to extensive import car taxes in Finland. We do this by exploiting a series of policy reforms in Finland, by utilizing novel third-party comparison information, and by analyzing a randomized control trial that varies the salience of the third-party information and a public disclosure program that renders less attractive car tax evasion achieved by overstating the mileage of imported used cars. The results suggest that car taxes in Finland induce car buyers to avoid some of the taxes by importing used cars from other countries without a high car import car tax. Moreover, we find systematic evidence of tax evasion in the form of "missing miles." The tax evasion leads to a significant loss of tax revenue and is positively related to CO_2 emissions and the tax rate. Increasing the salience of the anti-evasion initiatives reduced reported the overstatement of mileage.

3:30pm - 4:00pm

The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard

Ben Shuch Meiselman[1], Christopher R Knittel[2,3,5], James H Stock[4,5]

[1]Department of Economics, University of Michigan; [2]Sloan School of Management, MIT; [3]Center for Energy and Environmental Policy Research, MIT; [4]Department of Economics, Harvard University; [5]National Bureau of Economic Research

The U.S. Renewable Fuel Standard (RFS) requires blending increasing quantities of biofuels into the U.S. surface vehicle fuel supply. The effectiveness of the RFS hinges on the price of tradable compliance permits (RINs) passing through the fuel supply chain. We exploit large fluctuations in RIN prices during 2013–2015 to estimate the pass-through of RIN prices to U.S. wholesale and retail fuel prices. We control for common factors by examining spreads of physically similar fuels with different RIN obligations. Pooling six different wholesale petroleum fuel spreads, we estimate a pooled long-run or equilibrium pass-through coefficient of 1.00 with a standard error of 0.11. This pass-through occurs quickly, within two business days. We find no statistical evidence linking changes in RIN prices to changes in retail E10 prices. The

only fuel for which we find economically and statistically significant failure of pass-through is retail E85, which contains up to 83% ethanol.

2:00pm - 4:00pm
IIRC, Ito Gallery 1

B04: Competition regulation and privatization

Session Chair: **Kenji Fujiwara**, Kwansei Gakuin University

2:00pm - 2:30pm

Regional Differences and Privatization

Hideya Kato[1], **Mitsuyoshi Yanagihara**[2]
[1]Ryukoku University; [2]Nagoya University

This paper analyzes a mixed oligopoly model with two asymmetric regions with different populations, number of private firms, and shareholding ratios of private firms. We consider three cases: local ownership where the public firms are owned by the local government, state ownership where they are owned by the national government, and private ownership where they are owned by the private sector. We show that social welfare in the case of state ownership is greater than that in local ownership. Even in the case of local ownership, the government can replicate the equilibrium outcomes in the state ownership case by dividing the re-gions into optimal population sizes. We also show that if the number of private firms is large enough, although the public firms should be privatized from a national perspective, social welfare in its region may decrease because of privat-ization.

2:30pm - 3:00pm

The Consequences of Privatizations for Workers*

Martin Olsson, **Joacim Tåg**
Research Institute of Industrial Economics (IFN), Sweden

The world is in the middle of the fourth privatization wave, with record dollar amounts raised globally. This paper uses rich registry data to show that, contrary to existing literature, privatizations increases unemployment for workers. We also develop and investigate two novel hypotheses related to the labor economics of privatizations. First, we study if privatizations involve layoffs of workers performing routine job tasks. Second, we study if privatizations involve layoffs of less talented workers. We find support for these hypotheses. Workers doing routine job tasks are twice as likely to end up unemployed compared to workers doing non-routine tasks while less talented workers are a fifth more likely to enter unemployment compared to talented workers. We discuss what these results mean for job polarization patterns and for productivity gains after privatizations.

3:00pm - 3:30pm

Monopoly Regulation with Non-Paying Consumers

Martin Besfamille, **Nicolas Figueroa**, **León Guzmán**
Instituto de Economía, Pontificia Universidad Catolica de Chile, Chile

This paper studies an important problem that is pervasive in many regulated industries, both in developed and in developing countries, namely that the provision of the service is made in a context of non-paying consumers.

We characterize the optimal regulatory framework, both in a first-best and in a second best scenario.

3:30pm - 4:00pm

Competition Policy at the Intensive and Extensive Margins in General Equilibrium

Kenji Fujiwara
Kwansei Gakuin University, Japan

This paper develops a general equilibrium model comprising perfectly competitive and oligopolistic industries to revisit the effect of increased competition. We then define it as an increase in the number of oligopolistic firms and an expansion of perfectly competitive industries. We find that the former form of increased competition is beneficial if the oligopolists' production technology exhibits non-increasing returns to scale. A similar result applies to the latter kind of increased competition in the sense that it raises welfare if decreasing returns of the oligopolists' technology are strong enough. We argue that general equilibrium effects in the product and factor markets play a key role behind these results.

2:00pm - 4:00pm
IIRC, Seminar Room

B05: Investment in children

Session Chair: **Eva Mörk**, Uppsala University

2:00pm - 2:30pm

Local Economic Consequences of Investment in Children: Capitalization of Child Care Services

Lars-Erik Borge, **Jørn Rattsø**
Norwegian University of Science and Technology, Norway

Recent analyses of intergenerational mobility show that investments in children pay big dividends for them. The priority of resources in early childhood also affects the working of the local economy. Geographic variation in child-care services motivates location of families and thereby affects housing markets and the local public economy. In this paper we analyze this local dimension of universal child-care during a period of national reform to raise and equalize the child-care quality and coverage across the country in Norway. We investigate the relationship between child-care and housing prices using a variety of fixed effects panel models and using political based instruments for child-care services. The preferred panel model implies that one standard deviation increased coverage raises housing prices by 5 % and one standard deviation reduction in children per man-year increases house prices by 6%. The IV estimates indicate that OLS underestimates the degree of capitalization.

2:30pm - 3:00pm

Child Care Subsidies and the Time Allocation of Parents - Evidence from a Dutch Reform

Jim Been[1], **Egbert Jongen**[2]

[1]Leiden University & Netspar, Netherlands, The; [2]Leiden University & CPB Netherlands Bureau for Economic Policy Analysis

We study the causal effect of changes in child care subsidies on the time allocation of parents. We consider the effects of a substantial cut in child care subsidies in the Netherlands in 2012, using a differences-in-differences strategy. The treatment group consists of parents with a youngest child 0 to 12 years of age. The control group consists of parents with an older youngest child. We find that the reform did not significantly affect the number of hours worked by mothers or fathers. However, we do find a significant increase in the number of hours spent on household production by mothers, though not by fathers. Hence, our results indicate that the main effect of child care subsidies is to substitute informal care for formal care, which mostly affects the informal time use of mothers.

3:00pm - 3:30pm

Subsidies, Substitution and Spillovers of Formal Child Care

Hans van Kippersluis[1,2], **Hongliang Zhang**[3]

[1]Erasmus University Rotterdam, The Netherlands;; [2]Tinbergen Institute, The Netherlands; [3]Hong Kong Baptist University, Hong Kong S.A.R. (China)

In this paper we exploit a series of reforms in child care subsidies and population-wide register data from the Netherlands to estimate the effect of subsidies on child care use and employment. Our contribution is twofold. First, we are the first to study how parents respond to subsidy cuts rather than subsidy increases. This allows understanding whether changes to child care subsidies have a symmetric effect, and whether subsidy cuts provide a way to cut public spending without distorting labor supply. Second, through exceptionally rich register data, we can observe not just the parental labor supply response, but additionally the grandparent’s labor supply response. This allows gauging substitution between formal and informal child care, and estimating spillover effects of child care subsidies on grandparent’s labor supply decisions.

3:30pm - 4:00pm

Childcare - A Safety Net for Children?

Aino-Maija Aalto[1], **Eva Mörk**[1], **Helena Svaleryd**[1], **Anna Sjögren**[2]

[1]Uppsala University, Sweden; [2]Institute for Evaluation of Labor Market and Education Policy (IFAU)

Is childcare a safety net for vulnerable children? This paper investigates the role of childcare for the health outcomes of children whose parents are unemployed. Exploiting time variation in childcare access resulting from a reform requiring Swedish municipalities to provide childcare also for children with unemployed parents, we estimate causal effects on health, as measured by register data on hospitalizations. We find that access to childcare increases hospitalization due to infections temporarily for children aged 4-6 years old. These effects are mainly driven by children with low educated mothers. For toddlers, aged 1-3, we do not find any effects.

2:00pm - 4:00pm

Kojima, Seminar Room 2

B06: Place-based policies

Session Chair: **Masayoshi Hayashi**, University of Tokyo

2:00pm - 2:30pm

Optimal design of place-based policies: A structural evaluation of regional transfers in Europe

Max von Ehrlich[1], **Yashar Blouri**[2]

[1]University of Bern, Switzerland; [2]University of Bern, Switzerland

In this paper, we analyze the general equilibrium effects of regional Transfers in a multi-region framework with factor mobility, trade and endogenous agglomeration economies. Using detailed information on different types of EU transfers paid to local jurisdictions – wage subsidies and investments in infrastructure or production amenities – we simulate counterfactual policy experiments. We analyze the spatial distribution of economic activity and the welfare effects that result if (i) no transfers are being paid and taxes are set to zero, (ii) transfers are distributed uniformly, (iii) transfers are reallocated between the three different types. This allows us to introduce a structural approach to defining the welfare-optimal distribution of transfers across regions and different transfer types.

2:30pm - 3:00pm

A Spatial Model with Discrete Policy Choices That May Not Match: The Case of Regulatory Competition

David R. Agrawal[1], **Gregory A. Trandel**[2]

[1]University of Kentucky, United States of America; [2]University of Georgia, United States of America

We show New York counties that legalized the sale of fireworks first have more firework vendors near their border than counties that legalized later, despite the fact that counties that legalized first have less population near the border. We construct a model where jurisdictions competitively choose whether to legalize the sale of a good with a negative consumption externality. If a jurisdiction's firms can sell to neighboring residents, and if the good is competitively sold at every location, then all jurisdictions legalize or all jurisdictions ban. If firms have some market power, and if firms' locations depend on the order of legalization, an early-adopting government may legalize, but an otherwise identical, but later-acting, neighboring government might not. The model can be used to help explain the policy convergence regarding legalization of lottery sales but substantial regulatory differences persisting on casinos or firework sales.

3:00pm - 3:30pm

Wage Reform, Local Government Unions, and Intergovernmental Transfers: Evidence from the 2013 National Request in Japan

Masayoshi Hayashi[1], **Masashi Nishikawa**[2]
[1]University of Tokyo, Japan; [2]Aoyama Gakuin University, Japan

The Great East Japan Earthquake in 2011 created a shock that allowed the central government to issue a request in 2013 that local governments also reduce the wages of their employees. Using a unique dataset provided by MIC, we exploit this occasion to examine, among others, the effects of public sector unions and central grants on the responses of municipalities to reduce the wages of their employees. We show that the power of a union, as expressed as the vote share of an associated political party, did reduce the probability of accepting the wage reduction, while the receipt of the central grant increased it. These results are found to be quite robust to different combinations of union-related variables as well as different methods of estimation.

2:00pm - 4:00pm
Kojima, Seminar Room 3

B07: Tax havens

Session Chair: **Dominika Langenmayr**, KU Eichstätt-Ingolstadt

2:00pm - 2:30pm

Spillover From The Haven: Cross-border Externalities Of Patent Box Regimes Within Multinational Firms

Thomas Schwab, **Maximilian Todtenhaupt**
University of Mannheim and ZEW

We analyze the cross-border effects of patent box regimes that reduce the tax rate on income from IP. We argue that the tax cut in one location of a multinational enterprise may reduce the user cost of capital for the group if profit shifting is possible. This spillover effect of the foreign tax cut raises domestic R&D investment. We test this mechanism by combining information on patents, firm ownership and specific characteristics of patent box regimes. Micro-level analysis results from a micro-suggest that patent box regimes without a nexus requirement (patent havens) induce positive cross-border externalities on R&D activity within groups. Firms with cross-border links increase domestic research activity by 2.3% per implied tax rate differential after the implementation of a foreign patent haven. Furthermore, we find a negative spillover on average patent quality generated by patent boxes. This has important implications for international tax policy and the evaluation of patent box regimes.

2:30pm - 3:00pm

Information Exchange and Tax Haven Investment in OECD Equity and Debt Markets

Aaron Karl Hemmerich[1], **Jost Henrich Heckemeyer**[2]
[1]Leibniz Universität Hannover, Germany; [2]Leibniz Universität Hannover, Germany

Curtailing tax evasion is high on the international policy agenda. Still, there is only little empirical evidence about the effects of offshore tax evasion on cross-border portfolio investment and its responsiveness to changes in enforcement. Exploiting rich IMF data on bilateral investments in OECD portfolio markets, we show that outbound FPI from tax haven countries is significantly more responsive to information exchange than outbound FPI from non-havens. This is strong evidence for a tax evasion component in outbound FPI reported by tax havens. To our knowledge, we are the first to provide such evidence on a global scale.

3:00pm - 3:30pm

Banks' Country-by-Country Reporting Data and Locations of Their Activities: Profits in Tax Havens, Turnover and Employees Elsewhere?

Petr Janský
Charles University, Czech Republic

The country-by-country reporting data is one of the few implemented financial transparency recommendations following the global financial crisis, albeit only for banks in the European Union since 2014. I use the newly collected data for biggest European banks for 2014 and 2015 to shed more light on locations of banks' activities. I find a substantial misalignment of the location of profit and the location of turnover and employees. Some countries have proportionally more profit reported in them than turnover or a number of employees would suggest. These include Ireland and Luxembourg, for which there is substantial data, and Cayman Islands, Jersey, or Mauritius, with little data available. Also other countries, often considered tax havens, such as Hong Kong and Singapore, exhibit high levels of misalignment. I discuss potential explanations for the misalignment, including profit shifting, and how further research should differentiate between them.

3:30pm - 4:00pm

Trading Offshore: Evidence on Banks' Tax Avoidance

Dominika Langenmayr[1,2], **Franz Reiter**[3]
[1]KU Eichstätt-Ingolstadt, Germany; [2]CESifo; [3]University of Munich

Little is known about how banks shift profits to low-tax countries. Because of their specific business model, banks use profit shifting channels different from those of other firms. We propose a novel and bank-specific method of profit shifting: the strategic relocation of proprietary trading to low-tax jurisdictions. Using regulatory data from the German central bank, we show that a one percentage point lower corporate tax rate increases banks' fixed-income trading assets by 4.0% and trading derivatives by 9.0%. This increase does not arise from a relocation of real activities (i.e. traders); instead, it stems from the relocation of book profits.

2:00pm - 4:00pm

B08: Multinational firms and profit shifting

Session Chair: **Caroline Schimanski**, UNU - WIDER

Kojima, Kojima Conference Room

2:00pm - 2:30pm

The Role of Developing and Transition Economies in Multinational Companies' Profit Shifting Activities

Samina Sultan
Ludwig-Maximilians-University, Munich, Germany

Less developed countries are often claimed to be particularly exposed to and impaired by tax avoidance practices. This paper assesses how the level of development affects multinational profit shifting incentives. Instead of subsuming all less developed countries in a joint analysis as previous literature has done, I account for structural divides in tax-policy and industry structure between levels of development by distinguishing developing countries from the group of transition economies. In accordance with this divide, I find strong statistical evidence for multinational profit shifting in transition economies,but only weak evidence for developing countries. Moreover, this paper establishes a positive relationship between corruption in developing countries and reported profits of affiliates headquartered in tax havens. This suggests that alongside the corporate tax rate other factors, such as institutional and regulatory quality, need to be considered in the analysis of developing countries' exposure to profit shifting.

2:30pm - 3:00pm

Do Some Multinational Firms Benefit from Competitive Tax Advantages in the EU? – Evidence from Capital Market Reactions to EU State Aid Investigations

Tobias Bauckloh[3], Inga Hardeck[1], Patrick Wittenstein[2], Bernhard Zwergel[3]
[1]European University Viadrina, Germany; [2]University of Hamburg, Germany; [3]University of Kassel, Germany

European Union (EU) State aid rules disallow Member States from granting aid to certain firms, which positions them in a more favorable situation. Recently, the European Commission has started to investigate individual advance tax rulings issued to multinational, mainly U.S. based, firms. We argue that selective tax benefits through advance rulings provide firms with lower tax cost and thus competitive advantages over other firms. This research aims to provide empirical evidence of such competitive advantages and examines stock price reactions to State aid-related events. Negative stock price reactions to the majority of State aid investigations among U.S. multinational firms with subsidiaries in EU tax havens suggest the existence of advantages that might diminish through State aid rules. Moreover, positive abnormal returns surrounding events that signal support by the U.S. government imply that the capital market perceives these interventions as effective protection of U.S. firms' ability to avoid taxes in Europe.

3:00pm - 3:30pm

Do multinationals pay less in taxes than domestic firms? Evidence from the Swedish manufacturing sector

Asa Hansson
Lund University, Sweden

There is concern amongst policymakers worldwide that multinational enterprises engage in tax-planning activities. It is thought that by using transfer pricing or other techniques to shift profits, MNEs avoid taxation and thereby erode tax bases. Several attempts have been made to tackle this problem, e.g., through the Action Plan BEPS. It is hard, however, to empirically quantify the magnitude of tax-planning activities. In this paper, we rely on census data from tax return and income statements reported by Swedish manufacturing firms between 1997-2007 to identify possible profit-shifting activities by MNEs. We study systematic differences between multinational and comparable domestic firms in tax payments, profits, earnings before interest and taxes, and equity ratios using difference-in-differences estimations based on propensity score matching. The detailed data allow us to narrow down the empirical focus and investigate not only whether multinational pay less in taxes than domestic firms, but also how tax planning activities take place.

3:30pm - 4:00pm

Do Multinational Companies Shift Profits out of Developing Countries? New Evidence

Caroline Schimanski
UNU - WIDER, Finland; Hanken School of Economics; University of California Berkeley

Despite recent news and initial non-causal empirical evidence on multinational companies shifting profits out of developing countries, this study is unable to provide significant causal evidence on shifting out of developing countries to any affiliates in lower taxed, better credit rated, less corrupt, developed countries or tax havens. Methodologywise this study however improves on previous ones, by expanding the geographic focus, shifting patterns, incentivizing factors and using more realistic effective rather than statutory tax rates. Moreover, it identifies profit-shifting through earnings shocks relative to comparable firms that are only forwarded to other MNC affiliates located in lower taxed countries. The study can thereby control for country-pair-year fixed effects instead of relying on infrequent potentially endogenous changes in tax rates. Rather than rejecting the existence of profit-shifting, these results raise concern about rising complexity and time and sample robustness of studies using the Orbis database and urge for better data.

2:00pm - 4:00pm

Fukutake, Fukutake Learning Studio 1

B09: Corporate taxation and location of assets

Session Chair: **Kazuko Nakata**, Setsunan University

2:00pm - 2:30pm

Corporate Taxation and the (Co-)Location of Intangible and Tangible Assets

Hendrik Jungmann[1], Simon Loretz[2]

[1]University of Salzburg, Austria; [2]Institute for Advanced Studies, Vienna, Austria

Intellectual property (IP) is increasingly seen as an important determinant of the value creation of multinational companies (MNCs). At the same time, IP is in the focus of recent tax policy debates as a fundamental channel for aggressive tax planning. Especially the latter hinges on the assumption that IP is freely mobile within corporate groups. At the same time, policy makers argue with the IP's local value creation in favor of newly established tax treatments for income from IP such as patent boxes. This paper investigates whether firms are freely able to locate IP within their corporate group and what tax implications this has. We find that IP has only imperfect joint input characteristics and tends to be partly co-located with corporations' tangible assets. Further, we find that taxes significantly affect the location of both IP and tangible assets and that tax savings can be achieved particularly through IP.

2:30pm - 3:00pm

Estimating corporate profit shifting with firm-level panel data: Time trends and industrial heterogeneity

Salvador Barrios, Diego d'Andria

European Commission Joint Research Centre (JRC), Spain

Several studies have assessed the sensitivity of profit shifting activities by multinational companies. Earlier studies mostly rely on cross-sectional data while recent researches exploit panel data and, on average, found lower semi-elasticities. In this paper we show that these differences in results can largely be attributed to differences in methods and data used rather than to a genuine decline over time. Our evidence suggests instead that the variability in profit shifting rests primarily on sector heterogeneity, thus we propose an alternative estimation strategy based on multilevel regression analysis. We find that the semi-elasticities vary significantly across industries therefore pointing to important efficiency losses due to profit shifting. We find transfer pricing to be the dominant channel for profit shifting in comparison to financial shifting and that intangible assets affects transfer pricing, but mostly when the firm belongs to specific industries.

3:00pm - 3:30pm

What types of firms relocate their headquarters and why? Analyzing the effects of the dual corporate tax system.

Kazuko Nakata

Setsunan University, Japan

In 2004, the Japanese government introduced the dual corporate tax system, which allows prefectural governments to set their own corporate income tax rates. The purpose of this paper is to examine the effects of this tax reform on firms' location decision based on a discrete choice model, which investigates what types of firms relocate their headquarters across prefectures and whether their relocation decision was affected by the tax reform. The analysis indicates that the decision to relocate is negatively associated with firms' age and positively associated with their amount of assets, number of employees, debt-to-assets ratio, real estate rent, and payroll. Moreover, firms with a parent company, a foreign subsidiary, fewer business establishments, less capital stock, and fewer employees at the headquarters are more likely to relocate. Since the tax reform, firms tend to avoid relocating to prefectures with a high corporate tax rate.

2:00pm - 4:00pm

Fukutake, Fukutake Learning Studio 2

B10: Fiscal equalization

Session Chair: **Sutirtha Bagchi**, Villanova University

2:00pm - 2:30pm

Fiscal Equalization In The Spatial Economy

Tobias Seidel[1], Marcel Henkel[1], Jens Südekum[2]

[1]University of Duisburg-Essen, Germany; [2]University of Dusseldorf, Germany

We use a general equilibrium model with fiscal equalization to show that regional transfers are quantitatively important for understanding the spatial allocation of economic activity. Using data for Germany, we show that the abolishment of fiscal equalization would lead to a welfare gain of close to 3 percent implying migration of 2.7 million individuals. Governmental activity explains up to 35 percent of the spatial variation in local GDP.

2:30pm - 3:00pm

The Bavarian Municipal Fiscal Equalization Scheme: Emphasis on Equity Rather than Effciency

Isabella Ruth Lehmann, Matthias Wrede

Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Germany

Employing the approach of Albouy (2012), this paper evaluates the efficiency and equity of the municipal fiscal equalization scheme in the federal state of Bavaria in Germany using the annual financial statistics of municipalities from the Bavarian State Office for Statistics along with other regional data for the years 2004-2011. Because the Bavarian municipal fiscal equalization scheme redistributes revenues toward regions with low realized incomes and a larger population share of low productivity residents, the scheme satisfies certain equity criteria. However, the measurable net fiscal benefit is negatively correlated with per-capita local public expenditures, thus the municipal fiscal equalization scheme likely does not internalize local public good externalities and, therefore, hampers spatial efficiency.

3:00pm - 3:30pm

Does Fiscal Equalization Lead to Higher Tax Rates? Empirical Evidence from Germany

Manuela Maria Krause[1], Thiess Buettner[2]

[1]Ifo Institute, Germany; [2]University of Erlangen-Nuremberg, CESifo

This paper exploits a recent federal reform to explore the role of fiscal equalization as a driver of states's tax policy in Germany. Based on an analysis of the equalization system, we argue that the associated strong fiscal redistribution of tax revenues provides an in- centive for states to increase rather than to lower their tax rates. The empirical analysis exploits differences in the degree of fiscal redistribution among the states over time. More specifically, we use simulation analysis to precisely compute the fiscal incentive faced by each state and explore the empirical effects on tax policy. The results support the existence of a significant effect on tax policy. According to the estimates, with full equalization of revenues from the real estate transfer tax the tax rate is about one percentage point higher than without.

3:30pm - 4:00pm

The Effects of Political Competition on the Funding and Generosity of Public-Sector Pension Plans

Sutirtha Bagchi
Villanova University, United States of America

In politically competitive jurisdictions, there can be strong electoral incentives to underfund public pensions in order to keep current taxes low. I examine this hypothesis using panel data for 2,000 municipal pension plans from Pennsylvania. The results suggest that as a municipality becomes more politically competitive, it tends to have pension plans that are less funded, more generous, and that use higher interest rates to discount actuarial liabilities. The effects of political competition are pronounced in municipalities which have a higher proportion of less informed voters and are absent for defined contribution plans and pension plans offered by municipal authorities.

2:00pm - 4:00pm

Fukutake, Fukutake Learning Studio 3

B11: Labor Market Interventions

Session Chair: **Naomi Kodama**, Hitotsubashi University

2:00pm - 2:30pm

From Licensing to Certification: An Analysis of Germany's Crafts and Trade Sector

Christina Gathmann[1,2,3], **Franziska Lembcke**[1]
[1]University of Heidelberg; [2]IZA; [3]CESifo

Using administrative data on workers and firms, we study the labor market consequences of deregulating the crafts and trades sector. The reform eliminated strict occupational licensing requirements in 53 of the 94 crafts and trades. In the remaining 41 trades, the Master craftsman diploma remains a strict entry requirement. Our empirical approach combines propensity score matching with a difference-in-differences approach to compare the development of careers and wages of individuals in liberalized crafts to individuals in the regulated crafts. We find few effects of the deregulation on average wages and employment. We observe however, a sizable wage increase for Master craftsmen in the liberalized crafts and trades after the reform. In addition, we find a reduction in occupational mobility but an increase in job mobility among individuals in the deregulated occupations.

2:30pm - 3:00pm

The Interaction of Pension System and Unemployment Insurance - Evidence from two Reforms

Johannes Endler[1], **Johannes Geyer**[2]
[1]University of Potsdam, Germany; [2]DIW Berlin, Germany

Unemployment benefits are one important option to bridge time between employment exit and claiming retirement benefits for older workers. Therefore it is important to account for the interdependencies of these two systems when analyzing retirement behavior. In this paper we develop an option value model that explicitly accounts for the pension system and unemployment insurance in Germany. We use administrative panel data and implement the model for female birth cohorts of 1940 to 1949, exploiting exogenous variation in social security wealth by the pension reform 1992 and the reform of unemployment benefits in 2004. More specifically we use the option value model to simulate the employment and retirement effects of different reforms, changing (1) the maximum duration of unemployment benefits and (2) the level of benefit reductions for early retirement.

3:00pm - 3:30pm

Subsidy Policy and Elderly Labor

Yusuke Miyake[1], **Masaya Yasuoka**[2]
[1]Shigakukan University, Japan; [2]Kwansei Gakuin University, Japan

In economically developed countries, aging societies with fewer children are progressing. Increased longevity has necessitated postponement of the working retirement age. Our paper presents an examination of how subsidies for an elderly labor supply affect the elderly labor supply. Our paper presents derivation that this subsidy raises the elderly labor supply. Then, the wage rate of younger laborers can be increased because of complementarity between the younger labor supply and older labor supply. This effect is explained as an externality. By virtue of the externality effect, a subsidy to facilitate the elderly labor supply should be provided in support of social welfare.

3:30pm - 4:00pm

Labor Market Impact of Labor Cost Increase without Productivity Gain: A Natural Experiment from the 2003 Social Insurance Premium Reform in Japan

Naomi Kodama, **Izumi Yokoyama**
Hitotsubashi University, Japan

Exploiting heterogeneous variation in labor cost increases due to Japan's 2003 social insurance premium reform as a natural experiment, we find negative effects on employment, positive effects on average annual earnings, and no effect on total payroll costs and total working hours in an establishment that

experienced the increase in social insurance contributions. The increase of the burden on surviving workers is financed by an increase in average salaries resulting from longer working hours. Our findings imply that exogenous labor cost increases without productivity gains could trigger job cuts, especially in sectors and countries where dismissals are rigorously regulated.

2:00pm - 4:00pm
Law, Room 301

B12: Wealth taxation

Session Chair: **Dirk Schindler**, Norwegian School of Economics

2:00pm - 2:30pm

Simulating wealth taxes for Germany. Distributive and fiscal outcomes of current and alternative policies

Markus Tiefenbacher[1], **Gerlinde Verbist**[2], **Sarah Kuypers**[3]
[1]University of Salzburg, Austria; [2]University of Antwerp, Belgium; [3]University of Antwerp, Belgium

This paper presents a German case study for which the tax-benefit model EUROMOD is extended with both, existing and hypothetical wealth-related policies. Such extensions allow insights to what extent wealth-related policies contribute to total tax revenue and reducing income inequality. Regarding existing policies, our simulations yield hardly any redistribution or tax shortfall for tax deductions on private pension contributions and mortgage repayments. However, simulating the withholding tax on capitals gains and wealth tests for benefit entitlements we find significant redistribution from bottom to top. This effect cannot even approximately be compensated by wealth policies in a narrow sense (inheritance and gift, real estate and real estate transfer taxes). Finally, any hypothetical policy that substitutes existing wealth-related policies with a flat tax on net wealth, virtually neutral in terms of revenue and redistribution, would correspondingly be regressive. The income redistribution of Piketty stylized net wealth taxes crucially depend on their extent.

2:30pm - 3:00pm

The (Re)Introduction of Net Wealth Tax: Do Taxpayers Respond? Evidence from Spain

José María Durán-Cabré, **Alejandro Esteller-Moré**, **Mariona Mas-Montserrat**
Universitat de Barcelona, IEB

In the context of economic crisis, the Spanish government decided to re-establish the Wealth Tax appealing to redistributive and revenue motives. This paper studies how individuals reacted to the re-introduction of such tax and shows that its design leads the taxpayers to adopt significant elusive strategies. Using a panel of tax return micro-data from Catalan taxpayers for the 2011-14 period, we estimate elasticities of taxable wealth and total wealth. Results provide empirical evidence that taxpayers facing higher tax rates reorganize their wealth composition in order to benefit from the exemptions contemplated in the Wealth Tax Law. Therefore, estimates suggest avoidance rather than real behaviour. The existence of such responses has relevant policy implications, not only in terms of revenues but also because it undermines the redistributive role of the tax.

3:00pm - 3:30pm

The Elasticity of Taxable Wealth: Evidence from Switzerland

Marius Brülhart[1], **Jonathan Gruber**[2], **Matthias Krapf**[3], **Kurt Schmidheiny**[3]
[1]Université de Lausanne; [2]MIT; [3]University of Basel, Switzerland

We study the effects of wealth taxation on reported wealth in Switzerland, which has the highest rate of annual wealth taxation in the developed world, and where tax rates vary considerably across locations and over time. We use aggregate data on wealth holdings by canton and individual-level data for the canton of Bern. We find implied behavioral elasticities that substantially exceed those of the taxable income literature. We also find that taxpayers bunch below the tax threshold, that our responses are driven by changes in wealth holdings rather than mobility, and that financial wealth is more responsive than non-financial wealth.

3:30pm - 4:00pm

Wealth Taxation, Non-listed Firms, and the Risk of Entrepreneurial Investment

Dirk Schindler
Norwegian School of Economics, Norway

We analyze the effect of an optimal wealth tax on risk-taking behavior and welfare when investors do not only face the standard portfolio choice with a well-diversified market portfolio, but can alternatively choose to invest all their wealth into a non-diversifiable, indivisible project. The latter is interpreted as entrepreneurial investment into a small, non-listed firm for which the actual value is hard to measure. Therefore, real-world wealth tax systems base the tax on deterministic book values in the case of non-listed firms. We show that such systems do not distort the choice of projects if the tax is set optimally with an imputed interest rate on book values, actually larger than the risk-free market rate of return. Failing to apply such inflation of book values, instead, gives rise to an implicit subsidy on entrepreneurial activity. Our findings also have implications for taxation of hard-to-measure assets under capital-gains and inheritance taxation.

2:00pm - 4:00pm
Law, Room 203

B13: Growth and fiscal policy

Session Chair: **Alexandru Minea**, University Clermont Auvergne

2:00pm - 2:30pm

The Composition of Local Government Expenditure and Growth: Empirical Evidence from Sweden

Linda Andersson, **Emelie Värja**
Örebro University, Sweden

The purpose of this paper is to analyze if there is a possibility to enhance the average income growth rate at the local level by redistributing expenditure between main functional areas of local governments. Based on a panel of Swedish municipalities spanning the period 1997-2013 we find that devoting large shares of expenditure on areas that increase labor supply, such as child care and elderly and disability care is potentially positively related to growth in income. Consistent with previous studies we also find that infrastructure spending has a positive relationship with growth but there is a maximum.

2:30pm - 3:00pm

Tax Policy and Economic Growth: Does it Really Matter?

Donatella Baiardi[1], Paola Profeta[2], Riccardo Puglisi[3], Simona Scabrosetti[3]

[1]University of Parma; [2]Bocconi University; [3]University of Pavia

We challenge the “OECD view” (Arnold et al. 2011) according to which a shift from direct to indirect taxation is associated with higher long-run economic growth. We study the relationships between per capita GDP, overall tax revenue and tax composition (in particular direct vs. indirect taxation). We can replicate the findings in Arnold et al. when focusing on the same sample of countries and time period, but not when adopting more cautious estimates of the standard errors. The results are not robust to adding countries and/or extending the time period under consideration. They also differ in the short- and long-run.

3:00pm - 3:30pm

Self-education, Fully Funded Social Security and Economic Growth

Weizhen HU

Nagoya University, Japan

This paper evaluates the policy effects on economic growth of fully funded social security in a small open economy with overlapping generations and pays attention to individuals’ trade-off between self-education and intergenerational education. In our model, individuals make decisions not only on educating their children but also on educating themselves. We find that accumulation of human capital by individuals themselves is a kind of ‘waste’ to economic growth and fully funded social security could be a policy tool to reduce this waste. There could exist an optimal scale of social security which maximizes economic growth rate. We also show that in a small open economy, an increase in the interest rate reduces the optimal scale of fully funded social security and improves economic growth.

3:30pm - 4:00pm

Public Debt, Endogenous Growth Cycles and Indeterminacy

Maxime Menuet[2], Alexandru Minea[1,3], Patrick Villieu[2]

[1]University Clermont Auvergne, France; [2]University of Orléans, France; [3]Carleton University, Canada

This paper presents a theoretical setup for studying nonlinear effects of pubic debt in an endogenous growth model with cycles. Our results are threefold. (i) From a longrun perspective, our model exhibits multiplicity, i.e. a high-growth and a low-growth balanced growth path (BGP), due to the interaction between the government’s budget constraint and households optimal saving behavior. (ii) Turning to local dynamics, while the high equilibrium is saddle-path stable, the topological behavior of the low equilibrium is more complex. Indeed, the low BGP can be locally determined, over-determined, or under-determined. In the latter case, a supercritical Hopf bifurcation occurs, leading to limit-cycles. (iii) As regards global dynamics, three typical configurations arise: local and global determinacy; local determinacy and global indeterminacy; local and global indeterminacy. Specifically, global bifurcations can emerge, in relation with the degree of social acceptance to reduce non-distorsive components of government budget.

2:00pm - 4:00pm
Law, Room 305

B14: Household behavior around the world

Session Chair: **Binzhen Wu**, Tsinghua

2:00pm - 2:30pm

Helicopter Money: Survey Evidence On Expectation Formation And Consumption Behavior

Uros Djuric, Michael Neugart

Technische Universität Darmstadt, Germany

The effects of helicopter money on expectations and economic outcomes is empirically largely unexplored. We fielded a representative survey among the German population randomly assigning respondents to various unconventional monetary policy scenarios that raise household income. We find that in all policy treatments people spend almost 40% of the transfer. Spending shares are independent of whether the transfer is debt financed and provided by the government or provided by the central bank as `helicopter money'. Policies do not raise inflation expectations but induce uncertainty. Individuals' spending decisions are hardly correlated with measures on expectations.

2:30pm - 3:00pm

Quantifying the Impacts of Expanding Social Protection on Eciency and Equity: Evidence from a Behavioral Microsimulation Model for Ghana

Pia Andrea Rattenhuber[1], Robert Osei[2], Jukka Pirttila[1,3]

[1]UNU-WIDER, Finland; [2]University of Ghana; [3]University of Tampere, Finland

A key challenge facing developing countries when gradually building

up their social protection system is the presence of a large informal sector. For humanitarian and egalitarian reasons, social safety nets should be expanded, but financing them can lead to an increased burden on formal labour, which may reduce the number of formal-sector jobs available. The aim of this paper is quantify some of the impacts of expanding social protection in a developing country case on both income distribution and effciency, measured via the impacts on formal sector work. Results from a new tax-benefi t microsimulation model for Ghana, GHAMOD, are combined with elasticity estimates of the share of formal work with respect to the tax wedge on formal labour. While the estimated formality elasticity is statistically signi ficant, its size is modest and therefore the distributional gains of expanding cash-transfer programmes are considerable, even when taking into account behavioural impacts.

3:00pm - 3:30pm

Savings Behavior of Households between Japan and Korea

Joongho Kook
Yokohama City University, Japan

This paper compares the savings behavior between Japan and Korea, based on data of the Annual Report on the Family Income and Expenditure Survey. We recalculate the saving rates of the Survey data for each income group in Japan because it does not reflect actual conditions. After the burst of bubble economy in early 1990s, Japan has faced with the overall decline in income and saving, not so much changed in inequality of income distributions. We estimate the household savings with respect to income, main consumption items, and social security using panel data on decile income groups for the periods from 2000 to 2016. The estimation results indicate that there is a negative relation between education expenditures and savings in both Japan and Korea. On the other hand, there exists a negative or substituting relationship between the savings and the social security in Japan, but a positive or complimentary relationship between them.

3:30pm - 4:00pm

Tax Reduction and Household Consumption and Investment Decisions in Rural China

Binzhen Wu, Xiang Ma
Tsinghua, China, People's Republic of

The reduction of the agricultural tax between 2004 and 2006 was one of the most important reforms in rural China in the new century. We exploit this policy change to investigate how the increase in the after-tax disposable income affects rural households' consumption and investment decisions. The results show that the effect of tax reduction on consumption is inverse U-shaped. Tax reduction stimulates more labor and time inputs for nonagricultural production, including both migration and local non-agricultural production. It reduces the corresponding inputs for agricultural production. Households' pre-tax income increases after the tax change. This indicates that the long-run effect of tax reduction on consumption can be different from the short-run effect. Finally, there is little change in the agricultural output.

4:00pm - 4:30pm **IIRC, BF2 Multi-purpose space**	**Coffee Break**
4:30pm - 5:30pm **IIRC, Ito Hall**	**Plenary II: Keynote Lecture David Bradbury (OECD) on "Inclusive Fiscal Reform: Ensuring Fairness and Transparency in the International Tax System"** Session Chair: **Kimberley Scharf**, University of Warwick
5:30pm - 6:30pm **IIRC, Ito Hall**	**General Assembly of Members** Session Chair: **Joel Slemrod**, University of Michigan
7:00pm - 9:00pm **Dai-ichi Hotel Ryogoku, room 5F "Kiyosumi"**	**Welcome Reception**

Date: Saturday, 19/Aug/2017

9:00am - 10:00am
IIRC, Ito Hall

Plenary III: Keynote Lecture Hans-Werner Sinn (University of Munich) on "The ECB's Fiscal Policy"
Session Chair: **Joel Slemrod**, University of Michigan

10:00am - 10:30am
IIRC, BF2 Multi-purpose space

Coffee Break

10:30am - 12:30pm
Law, Room 101

C01: Retirement
Session Chair: **Monika Buetler**, University of St. Gallen

10:30am - 11:00am

Home Equity and the Timing of Claiming Social Security Retirement Income

Naqun Huang[2], Jing Li[2], Amanda Ross[1]
[1]University of Alabama, United States of America; [2]Singapore Management University, Singapore

This paper examines how changes in house prices affect the timing of when eligible individuals start to receive Social Security Retirement Income (SSRI). As changes in the price of housing and SSRI withdrawal decisions are likely to be correlated with unobserved local demand shocks, we employ an instrumental variables strategy using the land supply elasticity of an MSA interacted with the national housing price index changes as an instrument for the value of a home. We find that an increase in the value of a home causes elderly individuals to delay SSRI claiming once they are eligible during the housing boom period, but we do not find a statistically significant impact on the claim decision during the bust period. Our findings highlight the potential channel of cashing out home equity in replace of receiving SSRI early for seniors to finance retirement during the housing boom period.

11:00am - 11:30am

Retirement and benefit claiming with heterogeneous agents: Analyzing the macroeconomic effects of the Norwegian pension reform

Sigurd Galaasen
Norges Bank, Norway

Abstract This paper explores the macroeconomic implications of the Norwegian pension reform of 2011 in a large-scale overlapping generations model with endogenous retirement and benefit claiming choices. Individuals in the model are born heterogeneous with respect to earnings ability and preferences, and face income, health, survival shocks over the life cycle. The reform produces large fiscal improvements along the transition path. Relative to a no-reform scenario, the pension reform facilitates a 9.5 percentage points reduction in the consumption tax rate by 2060, equivalent to a reduction in the tax burden of 2.6 percent of GDP. This is the result of a combination of lower pension benefits and higher labor supply. One-third of the tax cut can be attributed to agents postponing retirement due to the removal of labor supply distortions associated with an earnings test of pension benefits.

11:30am - 12:00pm

Retirement Contribution Rate Nudges and Plan Participation: Evidence from a Field Experiment

Jacob Goldin[1], Tatiana Homonoff[2], William Tucker[3,4]
[1]Stanford Law School, United States of America; [2]New York University, United States of America; [3]ideas42, United States of America; [4]Social and Behavioral Sciences Team, United States of America

Simple interventions like changing the default or sending a short message can induce individuals to save more for retirement. However, messages that emphasize high savings rates may increase the amount that savings plan participants save while reducing the total number of plan participants. We study this possibility in the context of a field experiment designed to increase retirement savings by U.S. military service-members. We find that service-members who received a message emphasizing a low contribution rate were more likely to participate in a savings plan than were service-members whose message emphasized a high contribution rate, or no rate at all.

12:00pm - 12:30pm

Pricing annuities: The role of taxation in retirement decisions

Monika Buetler, Ramsden Alma
University of St. Gallen, Switzerland

This paper investigates the role of taxation in individual annuitization decisions in an environment that shows large differences in relative taxation between the one-off lump sum payment and the life-long annuity. For each individual whose retirement choice is recorded in an administrative dataset from a large Swiss pension fund we impute taxes for both options. We show that taxes can explain a significant part of the variation in annuity rates. Exploiting kinks in the tax schedule we also find evidence for tax optimization strategies by individuals. Our findings suggest that individuals react strongly to tax incentives when making retirement choices.

10:30am - 12:30pm
Law, Room 102

C02: Bunching
Session Chair: **Risa Marie Pavia**, Université catholique de Louvain & Universidade Nova de Lisboa

10:30am - 11:00am

How Much Should We Trust Bunching Estimates

Nathan Seegert[1], Andrew McCallum[2]

[1]University of Utah, United States of America; [2]Federal Reserve Board, United States of America

Most papers that employ bunching methods to exploit variation due to kinks or notches in budget constraints of people (or firms) do so in contexts where the assumptions necessary for consistency are likely to fail. We show that ignoring individual (or firm) characteristics and sample selection, in contexts when they are important, causes the bunching estimator to be inconsistent. We propose a new estimator combining the insights from the bunching literature and the labor nonlinear budget constraint literature. To illustrate the severity of the issues with ignoring individual (or firm) characteristics and sample selection we compare the bunching estimator and our new estimator in the context of the earned income tax credit and in a series of Monte Carlo simulations. We show our new estimator is consistent, it out performs current bunching estimators in the Monte Carlo simulations, and leads to quantitatively large differences in the context of the earned income tax credit.

11:00am - 11:30am

Malas Notches

Benjamin Lockwood

Uni of Warwick, United Kingdom

This paper shows that the suffcient statistic approach to the welfare properties of income (and other) taxes does not extend to tax systems with notches, because with notches, changes in bunching induced by changes in tax rates have a first-order effect on tax revenues. In an income tax setting, we show that the marginal excess burden (MEB) and the welfare-maximizing top rate of tax are given by the relevant formulae for a proportional tax as in Feldstein (1999) plus a correction factor. The Feldstein formulae always underestimate the MEB and overestimate the revenue and welfare-maximizing rate of tax. Quantitatively, these mis-estimates can be very large; the MEB can be underestimated by an order of magnitude. An application to VAT is discussed; with a calibration to UK data, the MEB of the VAT is roughly three times what is would be if VAT was simply a proportional tax.

11:30am - 12:00pm

Who Understands The French Income Tax ? Bunching Where Tax Liabilities Start

Raphaël Lardeux

Insee & CRED Paris 2, France

This paper disentangles responses to incentives from attention to taxes at the level where French income tax liabilities start. When reporting their earnings, tax filers may be confused between two potential thresholds: the true Tax Collection Threshold (TCT), a notch, and a wrong Taxation Threshold (TT), which is a kink. Using a comprehensive dataset on individual income tax returns from 2008 to 2015, I highlight significant bunching in the taxable income distribution at both thresholds. Within a model of tax misperception, I estimate that taxpayers are far from being fully attentive to the income tax system, yet display strong reactions to the marginal tax rate they perceive. This framework is robust to changes in marginal tax rates over time and may prove useful to detect policies improving attention to taxes. Contrasting hard-copy and online tax filers, the misperception model reveals a better understanding of the tax system by the latter.

12:00pm - 12:30pm

Tax Evasion by Domestic and Multinational Portuguese Firms: A Bunching Analysis

Risa Marie Pavia

Université catholique de Louvain & Universidade Nova de Lisboa, Belgium

In this paper I seek to distinguish tax evasion by "iceberg" firms, which report only some percentage of their income to the tax authorities, from "ghost" firms, which report no economic activity at all. I further differentiate firm behavior by multinational status, and test the effects of an exogenous shock to the cost of evasion for firms in certain sectors of economic activity. I develop a unique identification strategy using a new anti-tax evasion measure and a comprehensive dataset of the annual accounts of Portuguese firms.

I find significant bunching at zero profits by all firms in all time periods, indicative of tax evasion around that threshold. The difference-in-differences analysis shows less post-reform bunching by firms in sectors targeted by the 2013 law when compared to other firms, indicating that the law had the intended causal effect of decreasing evasion in those sectors, with a larger difference for multinational firms.

10:30am - 12:30pm

Law, Room 201

C03: Regulation(s)

Session Chair: **Jean-Denis Garon**, Université du Québec à Montréal
Discussant Paper 1: **Katherine Cuff**, McMaster University
Discussant Paper 2: **Steeve Mongrain**, Simon Fraser University
Discussant Paper 3: **Yu-Hsiang Lei**, Yale-NUS College
Discussant Paper 4: **Jean-Denis Garon**, Université du Québec à Montréal

10:30am - 11:00am

Optimal Redistributive Taxation with Constrained Self-insurance

Robin Boadway[1], **Jean-Denis Garon**[2], **Louis Perrault**[3]

[1]Queen's University, Canada; [2]Université du Quebec à Montreal, Canada; [3]Georgia State University, USA

We study optimal income and commodity tax policy with credit-constrained low-income households in two alternative settings. In the first, household labor supply can vary along the intensive margin, and in the second variation is along the extensive margin. We show that differentiated subsidies on commodities can be welfare-improving even if they violate the Atkinson-Stiglitz Theorem.

11:00am - 11:30am

Shades of Grey: Business Compliance with Fiscal and Labour Regulations

Katherine Cuff[1], **Steeve Mongrain**[2], **Joanne Roberts**[3]

[1]McMaster University, Canada; [2]Simon Fraser University, Canada; [3]Yale-NUS College, Singapore

Firms are subject to many forms of government regulation and laws. Two major sources of these regulations are corporate tax laws and labour or employment laws. There are many ways for firms to evade these legal requirements. Much of the literature examining the evasion behaviour of firms assumes that the decision to evade one form of regulation (such as labour regulation) is perfectly linked to the decision to evade another (such as paying business corporate taxes). In this paper, we separate these two evasion decisions and allow firms to decide whether to evade labour market regulations (including the payment of payroll taxes) independently from their decisions to evade corporate taxes. We characterize the firms' optimal entry and evasion behaviour and derive the government's optimal tax policies.

11:30am - 12:00pm

Private Protection and Public Policing

Ross Hickey[3], Steeve Mongrain[1], Joanne Roberts[4], Tanguy Van Ypersele[2]

[1]Simon Fraser University, Canada; [2]Aix-Marseille School of Economics; [3]University of British Columbia, Okanagan; [4]Yale-NUS

Previous research studies how private protection can be a substitute for public protection (policing) services. This paper looks carefully at situations in which public and private protection are complementary, that is, when private protection must be coordinated with public protection to be effective. For example, home alarms deter theft by being connected to a local police station: if the police do not respond to a home alarm, the home alarm on its own is virtually useless in halting a crime in action. We make a distinction between gross and net complementarity and substitution, where the latter takes into account the effect on crime rate. We show that very different optimal policy recommendations are generated when public and private protection are substitutes versus when they are complements.

12:00pm - 12:30pm

Can Governments Harvest Connections with Firms? Evidence from China

Yu-Hsiang Lei

Yale-NUS College, Singapore

Discussant: **Jean-Denis Garon** (Université du Québec à Montréal)

It is well-known that governments sometimes favor connected firms. This paper provides evidence on the reverse - firms providing favors to governments in a reciprocal relationship - exploiting a natural experiment from China. In October 2001, the tax revenue sharing rule between central and local governments was unexpectedly reformed: the higher the local tax revenue in 2001, the higher the share that local governments would get post-2001. From a newly collected dataset, I find that before the reform the governments that granted more favors to firms - access to credit and tax deductions - were able to mobilize more assistance from firms in order to raise the tax revenue in 2001. Furthermore, exploring the variation in leadership turnover, I find that firms who had previously received government favors provided no assistance to leaders who would soon leave office. These results are consistent with a theory of reciprocal relationships between governments and firms.

10:30am - 12:30pm
IIRC, Ito Gallery 1

C04: Tax competition

Session Chair: **Mohammed Mardan**, ETH Zurich

10:30am - 11:00am

The Direction of Strategic Delegation and Voter Welfare in Asymmetric Tax Competition Models

Yukihiro Nishimura[1], Kimiko Terai[2]

[1]Osaka University, Japan; [2]Keio University, Japan

This paper examined a political process and economic consequences of tax competition among asymmetric countries. Citizens are endowed with heterogeneous capital incomes. The median-voters deliberately elect a delegate whose preferences differ from their own, to pursue advantages in the international tax competition. When the countries have different productivity of the capital, the country with a low capital productivity may delegate the tax authority to a citizen who is richer than the median-voter. As a result, the outcome through strategic delegation may make the median-voters and the majority of citizens worse-off than the self-representation outcome, contrary to the previous studies with symmetric countries. Similar results are obtained when the countries differ in capital endowments. In contrast, when the countries differ in population size, productive inefficiency is reduced, and the median-voters are better-off through strategic delegation. We also point out the role of campaign promises for the equilibrium tax rates and citizens' welfare.

11:00am - 11:30am

Trade in Capital Tax Competition Models: Does it Matter?

Emmanuelle Taugourdeau[1,2], Abderrahmane Ziad[3]

[1]CREST, France; [2]Université Paris-Saclay; [3]CREM, University of Caen

This paper analyses the standard capital tax competition mechanisms in a context of commodity trade. We show that trade may restore the efficiency of the public good provision when agents from different countries have symmetric preferences. Asymmetry in preferences implies over or underprovision in public goods depending on the degree of asymmetry between countries. In both cases, the price adjustment leaves the capital stock unchanged so that the stock of capital is not affected by the taxes. Finally, we show that the centralized choice does not systematically restore the efficiency of the public good provision.

11:30am - 12:00pm

State Taxes, Economic Growth, and Strategic Competition

John Edwin Anderson, Alexander Johnson

University of Nebraska-Lincoln, United States of America

In this paper we examine the relationship between state tax structure, economic growth, and state tax policy reactions to neighboring states' policy changes. Using panel data for U.S. states over the period 1997-2013 we estimate an extended growth model to analyze competing interpretations of reaction

functions in the previous literature, allowing for a distinction between contemporaneous and lagged effects of tax competition. We also extend the analysis to examine each of the major forms of state taxation and find evidence that state tax rates negatively affect economic growth. Beyond that, we find evidence that states engage in strategic tax competition, with tax reaction functions that are generally positively sloped, although we find limited evidence of negatively sloped reaction functions in the long term. Finally, we find that tax competition is much more prominent with sales taxes and corporate income taxes compared to property taxes and personal income taxes.

12:00pm - 12:30pm

Tax Competition In Developed, Emerging And Developing Regions - Same Same Or Different?

Mohammed Mardan, **Michael Stimmelmayr**

ETH Zurich, Switzerland

This paper analysis the implications of country-specific risk in a setting where multinational firms choose the size of a risky investment as well as the optimal transfer price and asymmetric host countries non-cooperatively choose tax rates. We show that the outcome of the tax competition game crucially depends on the ability of multinational firms to shift profits and the relative risk levels of the competing countries. With high costs of profit shifting, higher risk countries exert a larger tax externality on lower risk countries whereas the opposite is true for low costs of profit shifting. For intermediate costs of profit shifting whether higher or lower risk countries exert the larger externality depends on the magnitude of the risk asymmetry. Our results are broadly in accordance with the observed tax policies across countries and regions.

10:30am - 12:30pm
Law, Room 301

C05: Environmental Regulation and Emissions

Session Chair: **B. Cecilia Garcia-Medina**, Banco de Mexico

10:30am - 11:00am

Emission Standards, Relocation, and Quality Differences

Jan S. Vosswinkel[1], **Laura Birg**[2]

[1]Nuertingen-Geislingen University, Germany; [2]University of Göttingen

This paper studies the effect of environmental policy on the relocation decision of firms, when a duopolistic market is characterized by vertical quality differentiation. Especially, we establish the relationship between quality difference, relocation cost and marginal damage of emissions.

11:00am - 11:30am

Multinational Corporations And The EU Emissions Trading System: Asset Erosion And Creeping Deindustrialization?

Nils Aus Dem Moore, **Philipp Grosskurth**, **Michael Themann**

RWI - Leibniz Institute for Economic Research, Germany

The EU Emissions Trading System (EU ETS) is the EU's flagship tool to combat climate change and the world's leading carbon market. However, it may threaten the international competitiveness of the firms subject to it, which could lead to a relocation of economic activity. This study investigates the policy's causal effect on firms' holdings of fixed assets as an early indicator for incipient processes of industrial relocation. To examine potential first-movers, we identify the ownership structures of multinational enterprises (MNEs). We exploit the installation level inclusion criteria of the regulation to apply a matched difference-in-differences approach. Our results indicate that, overall, the EU ETS had a positive impact on regulated firms' tangible fixed asset bases. We also find a negative treatment interaction effect which is suggestive of asset erosion for a subgroup of multinational firms. However, while the positive overall effect is robust, the differential effect for MNEs is not.

11:30am - 12:00pm

Large Investors and Permissive Regulation: Why Environmentalists May Dislike Investor-State Dispute Settlement

Kai A. Konrad

Max Planck Institute for Tax Law and Public Finance, Germany

This paper offers an economic analysis of the efficiency and distributive effects of an investor-state dispute settlement (ISDS) in markets with large investors. We first identify a reason for strategic overinvestment by the domestic industry, leading to excessively permissive environmental regulation in the absence of an ISDS. We show that an "ideal" investor-state dispute settlement arrangement (transactioncost free, with untouchable, fully reliable, and unbiased judges) has positive and negative effects. It generates an equal level playing field for domestic and foreign investors, but it magnifies an existing overinvestment problem. The results explain anecdotal evidence according to which ISDS institutions are liked by the domestic industry in the host country even if it protects foreign competitors, but ISDS is disliked by other interest groups in the host country.

12:00pm - 12:30pm

Environmental Regulation and International Trade in Used Cars

B. Cecilia Garcia-Medina[1], **Rui Wan**[2], **Liang Chen**[3]

[1]Banco de México, Mexico; [2]Nanjing University, China; [3]Wuhan University, China

This paper examines the effects of international trade in used cars on car consumption and emissions when countries differ in environmental regulations. We demonstrate that used car trade affects emissions through three channels: fleet size (scale effect), fleet composition (composition effect), and emission intensity differences of cars across countries (technique effect). We employ a unique data on Mexico annual car registration to show that imports of used car increases Mexico's total car consumption, lowers its new car sale and raises the consumption of used cars as predicted by our model. Our estimates indicate that Mexico imported 5.17 million used cars from 2005 to 2008 which lowers car emissions by 0.6 thousands of tons for CH_4, by 316.3 thousands of tons for CO, by 43.4 thousands of tons for NOx and by

66.2 thousands of tons for VOC in the case where the technique effect dominates the scale and composition effects.

10:30am - 12:30pm
IIRC, Seminar Room

C06: Global perspective on inequality

Session Chair: **Tsvetana Spasova**, University of Basel

10:30am - 11:00am

Global earnings inequality, 1970–2015

Olle Hammar[2], **Daniel Waldenström**[1]
[1]Paris School of Economics, France; [2]Uppsala University, Sweden

We estimate trends in global earnings dispersion across occupational groups using a new database covering 66 developed and developing countries between 1970 and 2015. Our main finding is that global earnings inequality has declined over this period. The decline occurred during the 1990s and 2000s, when the global dispersion went from a high and essentially non-trending level in the 1970s and 1980s down to a lower level in the 2010s. Decomposition analyses show that most of the decline is due to convergence in average earnings between poor and rich countries, with a specific role of the catch-up of China.

11:00am - 11:30am

Redistibution around the World: Causes and Consequences

Markus Jäntti[1], **Jukka Pirttila**[2], **Risto Rönkkö**[2]
[1]University of Helsinki, Finland; [2]University of Tampere, UNU-WIDER, Finland

This paper re-examines the determinants and consequences of redistribution in light of improved data and methods relative to earlier literature. In particular, we use the latest version of the UNU-WIDER's Income Inequality Database to have the best available estimates of both pre- and post-redistribution inequality for the largest set of countries and periods. We also tackle head-on problems of related to model specification that risks generating large biases in estimates because of mechanical associations between variables. The paper also shows how earlier results on the determinants of redistribution and the impacts of redistribution on growth can be misleading.

11:30am - 12:00pm

Globalization and Income Inequality Revisited

Florian Dorn, **Clemens Fuest**, **Niklas Potrafke**
Ifo Institute Munich; University of Munich (LMU), Germany

We re-examine the globalization-income inequality nexus. Globalization is measured by the KOF globalization index and sub-indicators for trade, financial, political and social globalization. Income inequality is measured by Solt's pre tax/transfer and the post tax/transfer Gini indices. We use data for 140 countries over the period 1970-2014 and deal with the endogeneity of globalization measures. Our instrumental variable is predicted openness based on a time-varying gravity model.

OLS results show that globalization and income inequality are positively correlated. The 2SLS results do not show that overall globalization or any sub-indicator influences income inequality. The effect, however, is positive within the sample of higher developed countries and driven by transition countries from Eastern Europe and China. Within the sample of the most advanced economies, neither OLS nor 2SLS results show any significant positive relationship between globalization and inequality.

12:00pm - 12:30pm

Gini Decomposition Across European Countries

Tsvetana Spasova
University of Basel, Switzerland

Considering the fluctuating differences in income inequality across and within the European countries over recent years, in this work we investigate the inequality across non-overlapping income subgroups. We use the European Statistics on Income and Living Conditions cross-sectional data for the time period from 2003 to 2012. We decompose the Gini coefficient into within- and between-group components for all the available European countries and years. We find that the change in the total Gini coefficient is mainly driven by the between-group Gini component. Further, the within-group Gini component is smaller when we decompose the Gini coefficient across more subpopulation groups. Our analysis shows that most of the countries were affected by the financial crisis and that in the years around it the inequality either started to increase or stopped to decrease.

10:30am - 12:30pm
Kojima, Seminar Room 2

C07: Elections and political competition

Session Chair: **Thushyanthan Baskaran**, University of Siegen

10:30am - 11:00am

Partying with the Left: Studying the Effect of a Coalition Partner

Lovisa Persson
Research Institute of Industrial Economics, Sweden

Using the Swedish municipal sector as my political laboratory, I study the effect of a coalition partner on policy outcomes. I use a version of Regression-Discontinuity Design (RDD) specifically suited to proportional systems to define close elections, which can be used for identifying the effect of the Left Party as coalition partner to the Social Democrats. The Left Party is found to have a positive and medium sized effect on the municipal income tax rate. The positive effect is in line with what we expect given the policy preferences of Left Party representatives, but also given the predictions from political fragmentation theory. I find no effects on expenditures or debt, and the negative result for investments is not robust

11:00am - 11:30am

Concurrent Elections And Political Accountability: Evidence From Italian Local Elections

Federico Revelli[1], **Emanuele Bracco**[2]
[1]University of Torino, Italy; [2]University of Lancaster, UK

This paper analyses the effects of holding concurrent elections in multi-tiered government structures on turnout decision and voting behaviour. Based on local (municipal and provincial) electoral data from Italy during the 2000s, we find that holding elections concurrently raises turnout significantly and by almost ten percentage points relative to holding lower stakes (provincial) elections alone. Moreover, we find that issues that are specific of the more salient mayoral contests affect the less salient ones (provincial electrions) too, and in particular that mayors' fiscal performance has an impact on the vote share of aligned provincial incumbents. These findings shed light on how voters acquire information on incumbent politicians, and prove that the effectiveness of an election as an accountability tool may be hindered by the decision of holding it concurrently with higher salience ones.

11:30am - 12:00pm

Advance Voting and Political Competition

Mats Johan Ekman
Hanken School of Economics, Finland

This paper presents a simple analysis of political campaigning incentives when the electorate make their voting decisions at different moments before Election Day. Many jurisdictions accommodate such voters by accepting mail-in ballots or setting up polling places where individuals may vote early. Since politicians can thereby alter their campaign promises while citizens vote, they have incentives to cater to different segments of the electorate at different times. This implies that those segments of the electorate who tend to vote early will pay higher taxes and receive fewer transfers than what had been announced when they voted, while later-voting segments benefit.

12:00pm - 12:30pm

Women Legislators: A tradeoff between pro-female policies and economic growth?

Thushyanthan Baskaran[1], **Sonia Bhalotra**[2], **Brian Min**[3], **Yogesh Uppal**[4]
[1]University of Siegen, Germany; [2]University of Essex; [3]University of Michigan, Ann Arbor; [4]Youngstown State University

There is growing evidence that women politicians are relatively effective in protecting the interests of women and children. But is this at the cost of economic growth? We investigate this using close elections between men and women in a regression discontinuity design. Using night luminosity as a measure of economic activity, we observe significantly higher economic growth rates in constituencies from which women rather than men are elected to state legislative assemblies in India. Amongst mechanisms, we find evidence consistent with women being less corrupt and politically opportunistic and more likely to improve access to roads, which we interpret as a signal of higher efficacy.

10:30am - 12:30pm
Kojima, Seminar Room 3

C08: Real Estate and Property Taxation

Session Chair: **Björn Seipelt**, Cologne Institute for Economic Research

10:30am - 11:00am

Real Estate Capital Gains Taxation and Lock-In Effects

Fredrik Roger Daniel Hansson[1], **Matz Dahlberg**[1], **Helena Svaleryd**[1], **Gustav Engström**[2]
[1]Uppsala University, Sweden; [2]The Beijer Institute of Ecological Economics

This paper will analyze if the real estate capital gains tax causes lock-in effects on the Swedish housing market. The frequency at which people in Sweden move has decreased since the tax reform of 2008 and the increased capital gains tax on real estate is an often cited reason for why homeowners defer housing sales. We test this hypothesis by using the tax reform of 2008 in a difference-in-difference model to test if homeowners with higher capital gains are more likely to defer sales after the reform relative to homeowners with lower capital gains.

11:00am - 11:30am

Price and Quantity Effects of the German Real Estate Transfer Tax

Kunka Petkova[1], **Alfons Weichenrieder**[2]
[1]WU (Vienna University of Economics and Business), Austria; [2]Goethe University Frankfurt

This paper analyzes the tax effects of the German real estate transfer tax (RETT). While the vast majority of single-family houses in Germany are owner-occupied, apartments are usually held by private and incorporated investors. For this reason, we conducted a regression analysis to determine the effects of increasing RETT on the number and the prices of transactions separately for these two market segments. Our findings suggest that increasing the RETT by 1% is associated with a decline in transactions by 0.23% for single-family houses, but with no significant effect on the prices of traded houses. Conversely, for apartments, we find no significantly negative quantity effect, but a negative price effect. Finally, for vacant lots, we find even larger quantity effects than for single-family houses suggesting roughly an elasticity of -1. The results for this specific market segment indicate that the government operates near the top of a Laffer curve.

11:30am - 12:00pm

The Spillover Effects of Taxation: Evidence from a Targeted Property Transaction Tax

Enda Patrick Hargaden
University of Tennessee, Knoxville, United States of America

This paper looks at the responsiveness of individuals not directly targeted by a tax, i.e. the spillover effects of taxation. The Irish tax code exempted first-time house-buyers from a 3% transaction tax for properties

worth less than e317500. By encouraging second-time buyers to bid just above e317500, this policy created a spillover effect on non-targeted individuals. Unlike notches which encourage excess bunching exclusively below a notch threshold, the spillover effect of this policy generates a `double-hump' with a second region of excess mass just *above* the notch threshold. Using administrative data on mortgage lending I demonstrate the excess tendency of first-time buyers to bid below the notch, and second-time buyers to bid above the notch. Cleaner identification is obtained from the unexpected abolition of the notch, facilitating difference-in-bunching estimates.

12:00pm - 12:30pm

Price Effects of Real Estate Transaction Taxes: Evidence from Germany

Björn Seipelt[1], **Nico Pestel**[2]

[1]Cologne Institute for Economic Research, Germany; [2]Institute of Labor Economics (IZA), Germany

This paper empirically assesses the impact of the German real estate transaction tax on prices and economic activity in the construction sector by using panel data on quarterly real estate transactions on the county level and construction sector activity on the federal state level. In line with previous research, first results indicate that the tax is overshifted on the seller such that the percentage drop in prices is even higher than the actual change in the tax rate. The basic regression approach is then augmented by various spatial components in order to capture spillover effects of closely located sample units. Subsequent results suggest that almost the entire incidence is on the seller whilst there is no evidence for overshifting left. Contrastingly, the construction sector does not reflect entirely compelling evidence in favour of changes in people's behaviour towards the acquisition of property in response to changes in the tax rate.

10:30am - 12:30pm

Kojima, Kojima Conference Room

C09: Fiscal Policies

Discussant Paper 1: **Ming-Hung Yao**, National Kaohsiung University of Applied Sciences
Discussant Paper 2: **Antonio Afonso**, ISEG-ULisboa
Discussant Paper 3: **Marcelin Joanis**, Polytechnique Montréal
Discussant Paper 4: **Nasir Ahmed Khan**, university of Hyderabad

10:30am - 11:00am

Fiscal Activism and Price Volatility: Evidence from Advanced and Emerging Economies

Antonio Afonso[1], **Joao Jalles**[2]

[1]ISEG-ULisboa, Portugal; [2]IMF, USA

Using a panel of 54 countries between 1980 and 2013, we find empirical support for the view that changes in the fiscal policy stance (year-on-year change in the cyclically adjusted primary balance) have a significant positive correlation with inflation volatility. An increase in the volatility of discretionary fiscal policies by one standard deviation raises inflation volatility between 5 and 6 percent. Moreover, results using alternatively different inflation volatility proxies confirm that an expansionary fiscal stance increases price volatility. Another relevant outcome is that in a context of economic expansions (recessions) the harmful impact of fiscal activism on price volatility is soften (heightened), while the negative impact of fiscal activism on price stability is higher when fiscal policy is expansionary. Finally, fiscal activism fuels inflation volatility much more pronouncedly in emerging market economies vis-a-vis advanced economies.

11:00am - 11:30am

Do Fiscal Rules Cause Fiscal Discipline Over The Electoral Cycle?

Kodjovi Eklou[3,2], **Marcelin Joanis**[1,2]

[1]Polytechnique Montréal, Canada; [2]CIRANO, Canada; [3]Université de Sherbrooke, Canada

This paper estimates the causal effect of fiscal rules on political budget cycles in a sample of 67 developing countries over the period 1985-2007. We exploit the geographical pattern in the adoption of fiscal rules to isolate an exogenous source of variation in the adoption of national fiscal rules. Based on a diffusion argument, we use the number of other countries in a given subregion that have fiscal rules in place to instrument for fiscal rules at the country level. We find that in election years with fiscal rules in place, public consumption is reduced by 1.65% point of GDP. Furthermore, the effectiveness of these rules depends on their type, their institutional design, whether they have been in place for a long time and finally on the degree of competitiveness of elections.

11:30am - 12:00pm

Impacts of Fiscal Policies on Output: A Cointegration Approach for Taiwan

Ming-Hung Yao

National Kaohsiung University of Applied Sciences, Taiwan

This paper discusses the effects of fiscal policies on economic growth in Taiwan from 1955 to 2015. The recursive cointegration approach is employed to deal with the time-varying behavior of these linkages. The results indicate significant and strong long-run equilibrium relationships between public investment-to-GDP ratio, tax mix, average tax rate, and economic growth rate in Taiwan. Public investment has positive effects while tax mix has negative effects on economic growth. Average tax rate has no significant effect on economic growth because the effects of direct and indirect taxation on economic growth may cancel each other out. The recursive cointegration estimation results confirm that the long-run equilibrium relationship changed around 2004. The results coincide with the argument of endogenous growth theory that given same tax burden, increasing public investment and reducing the ratio of direct to indirect taxes enhance economic growth.

12:00pm - 12:30pm

Fiscal Decentralization, Growth, and Institutional Quality in Developing Countries

Kumba Digdowiseiso[1,2]

[1]I.S.S. Erasmus University, Netherlands, The; [2]University of National, Indonesia

The impact of fiscal decentralization on economic growth has widely been debated by many scholars for several decades. However, few studies have not investigated this relationship with particular focus in

developing countries. This study will examine the relationship between fiscal decentralization and economic growth and how the role of institutional quality in explaining fiscal decentralization-growth nexus across 40 developing countries in the period 1990 – 2014. The findings show that an unambiguous link between fiscal decentralization and growth in developing countries cannot be clearly established. However, fiscal decentralization would give more indirect effect on growth if democracy, democratic accountability, government quality, bureaucratic quality, government stability, control for corruption, and strong law and order are taking into account without neglecting their direct effects on growth. Also, there is a significant evidence of a hump-shaped relationship between fiscal decentralization and growth in upper middle-income countries when incorporating government quality variable.

10:30am - 12:30pm

Fukutake, Fukutake Learning Studio 1

C10: Fiscal policy

Session Chair: **Piyali Das**, Tata Institute of Social Sciences

10:30am - 11:00am

Cross-country Fiscal Policy Spillovers and Capital-skill Complementarity in Currency Unions

Thomas Davoine, **Matthias Molnar**
Institute for Advanced Studies (IHS), Austria

We investigate cross-country fiscal policy spillovers through the integration of capital markets in a currency union and allow capital use in production to differ across countries. Following empirical evidence, we assume that production exhibits capital-skill complementarity. Using a multi-country overlapping-generations model calibrated for 14 European Union countries, we find that output spillovers are small with standard tax reforms but can be sizeable with large government spending increases financed by taxes: long run output losses in shock-free countries can amount to a quarter of the losses in countries hit by the spending shock. Conditional and temporary relaxing of the EU debt ceiling rule could benefit the Union as a whole.

11:00am - 11:30am

Fiscal Policy Changes and Aggregate Demand in the U.S. Before, During and Following the Great Recession

Byron Lutz
Federal Reserve Board, United States of America

We examine the effect of federal and subnational fiscal policy changes on aggregate demand in the U.S. by introducing the fiscal effect (FE) measure. FE can be decomposed into three components. Discretionary FE quantifies the effect of discretionary or legislated policy changes. Cyclical FE captures the effect of the automatic stabilizers—changes in government taxes and spending arising from the business cycle. Residual FE measures the effect of all changes in government revenues and outlays which cannot be categorized as either discretionary or cyclical. We use FE to examine the contribution of fiscal policy changes to growth in real GDP during and after the Great Recession. We then compare this contribution to the contributions in past business cycles. In doing so, we highlight that the strong support of government policy to GDP growth during the Great Recession was followed by a historically weak contribution over the course of the current expansion.

11:30am - 12:00pm

Dynamic Scoring of Tax Reforms in the EU

Salvador Barrios[2], Mathias Dolls[4], Anamaria Maftei[2], Andreas Peichl[1], Sara Riscado[2], Janos Varga[3], Christian Wittneben[4]
[1]Centre for European Economic Research, Germany; [2]European Commission, Joint Research Centre; [3]European Commission, Directorate General for Economic and Financial Affairs; [4]ifo Institute Munich, Germany

In this paper, we present a dynamic scoring analysis for European countries, accounting for the feedback effects resulting from the adjustment in labour supply and economy-wide reaction to tax policy changes. We combine the microsimulation model EUROMOD and an econometrically estimated labour supply model, with the new Keynesian DSGE model of the European Commission QUEST. We analyse tax reforms in three different EU countries, namely Italy, Belgium and Poland. We compare two different scenarios – one in which the behavioural response to tax changes over the medium term is ignored and another scenario where this behavioural/micro-dimension is embedded into the macroeconomic model. We show that accounting for the behavioural and macroeconomic feedback effects of these reforms can result in important changes in their fiscal and distributional impacts.

12:00pm - 12:30pm

Decomposition of Debt-GDP Ratio for United Kingdom: 1984-2009

Piyali Das
Tata Institute of Social Sciences, India

Most advanced nations today are witnessing a peace-time public debt surge that match post World War levels. This raises concerns about fiscal fi nancing and liquidation of the stock of debt specially in the face of changing demographics. United Kingdom being one of the advanced nations with a high level of public debt and an aging population is facing similar issues of fiscal financing. This paper attempts to decompose the evolution in the debt-to-GDP ratio of UK between 1984-2009 into nominal returns, inflation, GDP growth rate, primary defi cit and the maturity structure of the debt. The results of the decomposition show that the government of UK did inflate away part of the debt but most of the adjustments were due to low interest rates and changes in the primary defi cit.

10:30am - 12:30pm

C11: Labor supply

Session Chair: **Che-Yuan Liang**, Uppsala University

Fukutake, Fukutake Learning Studio 2

10:30am - 11:00am

Intertemporal Labor Supply Substitution? Evidence from the Swiss Tax Holiday

Isabel Z. Martinez[1], **Emmanuel Saez**[2], **Michael Siegenthaler**[3]

[1]Luxembourg Institute for Socio-Economic Research, Luxembourg; [2]University of California, Berkeley; [3]KOF Swiss Economic Institute

This paper estimates the intertemporal labor supply (Frisch) elasticity of substitution exploiting an unusual tax policy change in Switzerland. In the late 1990s, Switzerland switched from an income tax system where current taxes were based on the previous 2 years' income to a standard annual pay-as-you go system, creating a 2-year long, salient, and well advertised tax holiday. Swiss cantons switched to the new regime at different points in time during the 1995–2003 period. We further exploit rich local variation in taxation and use population wide administrative social security earnings data matched with census data, to identify the Frisch elasticity. We find significant but quantitatively small responses of earnings consistent with a Frisch elasticity around .2. Part of the response is likely due to tax avoidance rather than actual labor supply change. Hence, our findings definitely rule out large Frisch elasticities conventionally used to calibrate business cycle macro models.

11:00am - 11:30am

Income Creation and/or Income Shifting? The Intensive vs. the Extensive Shifting Margins

Laurent Simula[1], **Hakan Selin**[2]

[1]University Grenoble Alpes, France; [2]IFAU, Sweden

The optimal tax literature has modelled income shifting as a decision along the intensive margin. However, income shifting involves significant fixed costs, which give rise to an important extensive margin. In this article, we show that the distinction between the intensive and extensive margins has crucial policy implications. We consider a population of agents differing in terms of productivities, labor supply elasticities and abilities to shift income. In the extensive margin model the distinction between income creation and income shifting breaks down and the social planner should not in general combat shifting. In particular, numerical simulations of a linear tax model suggest that the social planner should allow for income shifting if elasticities are heterogeneous in the population. We demonstrate that the qualitative conclusions drawn from the simple linear tax model carries over to a model with two fully non-linear tax schedules.

11:30am - 12:00pm

Distribution-Free Estimation of the Distribution of Labor Supply with Nonlinear Budget Sets

Che-Yuan Liang

Uppsala University, Sweden

I develop a method for estimation of the expectation and distribution of hours of work, earnings, earnings tax revenues, and disposable earnings. The method structurally accounts for nonlinear budget sets, preference heterogeneity, optimization errors, and fixed costs of work. It does not require distributional assumptions and data on gross wage rates, and tax reforms can be used for identification. I include an empirical application on the behavioral effects of changing earnings tax rates in the U.S. using data from the PSID from 2000 to 2006. The estimates imply a marginal deadweight loss of 0.27.

10:30am - 12:30pm

Fukutake, Fukutake Learning Studio 3

C12: Policy: Theory

Session Chair: **Mizuki Komura**, Musashi University Tokio

10:30am - 11:00am

The Welfare Comparison of Ad-valorem Tax and Specific Tax with Quality Choice of A Consumer

Shuichi Tsugawa[1], **Takuya Obara**[2]

[1]Toulouse School of Economics; [2]Hitotsubashi University

This paper compares ad-valorem and specific taxation in models where a representative consumer has both a quality and a quantity choice under perfect competition. In the setting, while ad-valorem tax causes only income effect, specific tax causes not only income effect but also substitution effect. Therefore, ad-valorem tax decreases consumer demand for both quality and quantity; on the other hand, specific tax decreases consumer demand for quantity, but the sign of consumer demand for quality is ambiguous, and determined by the curvature of marginal utility on quantity. In addition, using a constant elasticity of substitution (CES) utility function and a linear price function, we show that ad-valorem tax is superior to specific tax except for Leontief preference under which the two forms of commodity taxes generate the same tax revenue. Substitution effect caused by specific tax disappears if the elasticity of substitution converges to 0.

11:00am - 11:30am

Social Capital and Status Externality

Jun-ichi Itaya[1], **Chris Tsoukis**[2]

[1]Hokkaido University; [2]Keele University

This paper investigates how the presence of social capital affects the externality arising from status-seeking preference as a parable for inefficient antagonistic behavior. It is assumed that the stock of social capital is accumulating through joint social interaction among individuals who are forward looking. Using a differential game, we show not only that although the presence of social capital mitigates the tendency of

overconsumption through time, social capital ends up declining to zero. It is also shown that the presence of peculiar benefits from social capital induces individuals to accumulate social capital thereby reducing overaccumulation and thus improving social welfare.

11:30am - 12:00pm

On the Excess Burden of Taxation in an Overlapping Generations Model

Sebastian Wende, **Chung Tran**
The Australian National University, Australia

We quantify and compare the welfare loss from increasing government revenue using different tax instruments by applying the marginal excess burden approach. We use a dynamic general equilibrium, overlapping generations model calibrated to Australian data and concentrate on three taxes: personal income tax, company income tax and consumption tax. Our results indicate that the company income tax is more distorting than the other two taxes. Specifically, the marginal excess burden for the company income tax is 83 cents per dollar of tax revenue raised, compared to 34 cents and 24 cents for the personal income tax and consumption tax, respectively. Moreover, the excess burden is distributed unevenly across skill types and ages, and over time. Our marginal excess burden analysis provides a simple but effective index for evaluating relative costs and benefits of different taxes at the margin.

12:00pm - 12:30pm

Self-enforcing Family Rules, Marriage And The (Non)neutrality Of Public Intervention

Alessandro Cigno[1], Mizuki Komura[2], Annalisa Luporini[1]
[1]University of Florence, Italy; [2]Musashi University Tokio, Japan

We demonstrate that the notion of a family "constitution" (self-enforcing, renegotiation-proof norm) requiring adults to provide attention for their elderly parents carries over from a world where identical individuals reproduce asexually, to one where individuals differentiated by sex and preferences marry, have children and bargain over the allocation of domestic resources. In this heterogenous world, couples are sorted by their preferences. If a couple's common preferences satisfy a certain condition, the couple have an interest in instilling those preferences into their children. Policies are generally nonneutral. In particular, wage redistribution may raise, and compulsory education will reduce, the share of the adult population that is governed by family constitutions, and thus the share of the elderly population who receive attention from their children.

10:30am - 12:30pm
Law, Room 203

C13: Political cycles

Session Chair: **Shun-ichiro Bessho**, The University of Tokyo

10:30am - 11:00am

Power Politics: Electoral Cycles in German Electricity Prices

Florian Englmaier[1], Lisa Hinreiner[2], Andreas Roider[2], Till Stowasser[1]
[1]University of Munich (LMU), Germany; [2]University of Regensburg, Germany

We provide evidence that German public energy providers, over which municipality-level politicians hold substantial sway, systematically adjust the pricing of electric energy in response to local electoral cycles. In the run-up to elections, electricity prices set by these public utilities systematically decrease compared to the prices set by privatized utilities which are unconnected to local politicians. In the three years after an election, public utilities set relatively higher prices than private energy providers. This pattern is in line with both, an artificial reduction in prices before an election that needs to be countermanded by future price increases, and an artificial postponement of market-driven price increases until after the election is over. Our results suggest that government-controlled firms may represent a viable alternative to -- often unavailable -- standard public-finance instruments for local politicians to influence their popularity before elections.

11:00am - 11:30am

Election Cycles within the Budget Composition - Empirical Evidence from a Developed Democracy

Jonas Klarin
Uppsala University, Sweden

In this paper I test for the presence of election cycles among Swedish municipalities. I find that incumbents in local Swedish governments increase highly visible spending - especially on roads and parking spaces - in election years. The local governments do not decrease other costs to keep the budget in balance. Consequently, aggregate spending is increased. I also find that the intergovernmental grants increase when there is an election. Thus, the local governments can satisfy the balanced budget rule and still increase the provision of visible public goods to signal competence to voters. Macro-economic trends and other factors are effectively controlled for using unique data on GDP at the local level as well as demographic, political and financial covariates. I estimate the cycles using both OLS fixed effects and with the dynamic GMM approach suggested by Arellano-Bond (1991) on a panel of Swedish municipal public finances over the years 2000-2015.

11:30am - 12:00pm

Political Economy Determinants of Government's Arrears

Marco Buso[2], Luciano Greco[2], Luigi Moretti[1]
[1]Université Paris 1, France; [2]University of Padua, Italy

We investigate how payments on public investment arrears are influenced by the political cycle. We develop a model where local politicians face term limits and take public finance decisions. Each year, incumbent politicians set the level of commitments for current and investment expenditures, taxes and loans; then, they decide the level of payments on committed expenditure (including arrears). Testable predictions suggest a political budget cycle where taxes, commitment expenditure, and payments are used strategically by incumbent politicians. We test such predictions using a dataset of Italian

municipalities. Our empirical findings confirm that politicians implement fiscal consolidation early after taking office; along the political cycle, commitment investment expenditure and taxes grow until the pre-electoral year, then dramatically shrink in the election year. We show that incumbent politicians regulate the timing of expenditure implementation by steadily increasing payments (on arrears) along the political cycle, reaching the maximum in the election year.

12:00pm - 12:30pm

Hospitals, Patients and Politics: Political Cycles in the Public Hospital Management

Reo Takaku[1], Shun-ichiro Bessho[2]

[1]Institute for Health Economics and Policy, Japan; [2]The University of Tokyo, Japan

Previous studies find health care service is likely to be a target of political manipulation, while there is a little studies on how politicians actually intervene health care services. This paper examine how local politicians intervene government-owned hospitals in their municipalities in the election years. Hospital-level census data are matched with the timing of the 1,724 mayoral elections during the years from 2001 to 2012. The results suggest the statistically significant increases in the number of physicians in municipal hospitals, in the years of mayoral elections. In addition, municipal hospitals are more likely to provide unprofitable cares such as pediatrics and obstetrics in mayoral election years. As a result, the number of outpatients as well as inpatients received by these hospitals also increased.

10:30am - 12:30pm
Law, Room 305

C14: Experiments
Session Chair: **Tobias Wolf**, Freie Universität Berlin

10:30am - 11:00am

Field-Experimental Evidence on Unethical Behavior Under Commitment

Ulrich Glogowsky, Tobias Cagala, Johannes Rincke

University of Munich, Germany

Authors asked that the abstract be removed (2019).

11:00am - 11:30am

Profit in Tax-financed Services: An Experimental Opinion Survey

Henrik Jordahl

Research Institute of Industrial Economics (IFN), Sweden

I use an experimentally designed opinion survey to study public opinion of private for-profit companies in the Swedish tax-financed service sector. Most respondents grossly overestimate the profitability of these companies. The higher the overestimation, the more positive is the respondent towards a political proposal to put a cap on dividends in the tax-financed service sector. Informing people about the actual average operating margin in the sector reduces their support for capping dividends considerably.

11:30am - 12:00pm

Risk Taking and the Welfare State: Some Experimental Evidence

Stefan Traub, Jan Philipp Krügel

Helmut-Schmidt-University, Germany

The welfare state can be seen as an insurance device that enables society to decrease the variance in lifetime incomes by means of redistributive taxation. The Theory of the Welfare State (Sinn, 1995, 1996) provides theoretical arguments suggesting that the welfare state not only improves allocation eciency but also may give rise to a redistribution paradox in such a way that redistributive taxation leads to more post-tax income inequality. Here, we report experimental evidence on some constituents of the Theory of the Welfare State, namely, the Domar-Musgrave effect and the redistribution paradox. While subjects' investments increase in the way predicted by theory when redistributive taxation and lump-sum transfers are introduced, the existence of a redistribution paradox is not confirmed by our data.

12:00pm - 12:30pm

Income Support, (Un-)Employment and Well-Being

Clemens Hetschko[1,3], Ronnie Schöb[1,2,3], Tobias Wolf[1]

[1]Freie Universität Berlin; [2]ifo Dresden; [3]CESifo

Using specific panel data of German welfare benefit recipients, we investigate the non-pecuniary life satisfaction effects of in-work benefits. Our empirical strategy combines difference-in-difference designs with synthetic control groups to analyze transitions of workers between unemployment, regular employment and employment accompanied by welfare receipt. Working makes people generally better off than being unemployed, but employed welfare recipients do not reach the life satisfaction level of regular employees. This implies that welfare receipt entails non-compliance with the norm to make one's own living. Our findings allow us to draw cautious conclusions on employment subsidies paid as welfare benefits.

12:30pm - 1:30pm
IIRC, BF2 Multi-purpose space

Lunch

1:30pm - 3:30pm
Law, Room 101

D01: Children

Session Chair: **Maria Racionero**, The Australian National University

1:30pm - 2:00pm

Optimal Education Policy when Parental Time Investments Matter

Pierre Pestieau[1], **Maria Racionero**[2]
[1]CREPP (Université de Liège), CORE (Université catholique de Louvain), TSE, CEPR; [2]ANU Research School of Economics

Parents typically invest both time and money in the education of their children. We study the implications for the optimal education policy of taking parental time investments in children's education into account. The children's human capital production function depends on both parental time investments and formal education, either privately purchased or publicly provided. We assume that parents differ in their unobservable ability and that the productivity of the time spent with their children depends on their ability. In the second-best, we assume that the parental time investment is always unobservable but explore the implications of alternative assumptions on the observability of private purchases of education. We show that the sign of the cross derivative between parental time and private purchases of education plays a critical role in the second best optimal education policy.

2:00pm - 2:30pm

Birth Order and Child Health

Helena Svaleryd, **Evelina Björkegren**
Uppsala university, Sweden

We study birth-order effects on childhood health, and whether it is a transmission channel for birth-order effects observed later in life. We find that firstborns have worse health at birth. This disadvantage is reversed in early age and later-born siblings are likelier to be hospitalized for conditions associated with parental attention. In adolescence, younger siblings are likelier to be admitted to hospital due to poor mental health and alcohol induced conditions. We test for reverse causality and conclude that the effects on health are unbiased; however, the negative birth-order effects on infant mortality are partly due to endogenous fertility responses. Overall our results suggest that birth order effects are due to differential parental investment because parents’ time and resources are limited.

2:30pm - 3:00pm

Efficient Child Care Subsidies

Christine Ho[1], **Nicola Pavoni**[2]
[1]Singapore Management University, Singapore; [2]Bocconi University, IGIER, IFS, and CEPR

We study the design of child care subsidies in an optimal welfare problem with heterogeneous private market productivities. The optimal subsidy schedule is qualitatively similar to the existing US scheme. Efficiency mandates a subsidy on formal child care costs, with higher subsidies paid to lower income earners and a kink as a function of child care expenditure. Marginal labor income tax rates are set lower than the labor wedges, with the potential to generate negative marginal tax rates. We calibrate our model to features of the US labor market and focus on single mothers with children aged below 6. The optimal program provides stronger participation but milder intensive margin incentives for low income earners with subsidy rates starting very high and decreasing with income more steeply than those in the US.

3:00pm - 3:30pm

Women's Career Choices, Social Norms and Child Care Policies

Francesca Barigozzi[2], **Helmuth Cremer**[1], **Kerstin Roeder**[3]
[1]Toulouse School of Economics, France; [2]University of Bologna, Italy; [3]University of Augsburg, Germany

Our model explains the observed gender-specific patterns of career and child care choices through endogenous social norms. We study how these norms interact with the gender wage gap. We show that via the social norm a couple's child care and career choices impose an externality on other couples, so that the laissez-faire is inefficient. We use our model to study the design and effectiveness of three commonly used policies. We find that child care subsidies and women quotas can be effective tools to mitigate or eliminate the externality. Parental leave, however, may even intensify the externality and decrease welfare.

1:30pm - 3:30pm
Law, Room 201

D02: Consumption and UI

Session Chair: **Johannes Spinnewijn**, The London School of Economics and Political Science

1:30pm - 2:00pm

Retailer Choice and the Macroeconomy

Scott Ross Baker[1], **Lorenz Kueng**[2], **Brian Baugh**[3], **Nir Jimovich**[4], **Arlene Wong**[5]
[1]Northwestern University; [2]Northwestern University; [3]University of Nebraska; [4]USC; [5]University of Minnesota and Minneapolis Federal Reserve

Using transaction-level income and spending data, we evaluate substitution patterns of household spending across individual retailers. Using a range of shocks to household income, we show that as household income increases (decreases), spending systematically shifts towards higher (lower) quality and a broader (narrower) range of retailers. These changes in household shopping behavior are substantial: if two households in the same income decile move one decile apart, their probability of shopping in overlapping retailers declines by 15%. Moreover, these substitution patterns translate to significant macroeconomic effects due to heterogeneity in firm characteristics. As one application, we show that higher levels of labor intensity by retailers frequented by higher income households amplify shifts in labor demand during the business cycle.

2:00pm - 2:30pm

Shopping for Lower Sales Tax Rates

Lorenz Kueng, **Scott Baker**
Northwestern University, United States of America

Using comprehensive high-frequency state and local sales tax data, we find that household spending responds strongly to changes in sales tax rates. Despite their complexity, such as the the fact that sales taxes are not observed in posted prices and have a wide range of rates and exemptions, households increase online and cross-border shopping and stock up on storable goods before taxes increase. Interestingly, households adjust spending similarly on both taxable and tax-exempt goods. We demonstrate that this seemingly irrational behavior is optimal in the presence of shopping complementarities and provide independent evidence in favor of this new mechanism. While our results demonstrate that salience of sales tax changes is high on average, we also show that upcoming tax changes that are more salient prompt larger responses.

2:30pm - 3:00pm

Unemployment, Consumption Smoothing and the Value of Unemployment Insurance

Johannes Spinnewijn, **Camille Landais**
The London School of Economics and Political Science, United Kingdom

While a large literature has analysed labor supply responses to social insurance program, the corresponding insurance value of these programs is not well known. The challenge has been to assess the insurance value of mandated programs when no choice is allowed for. This paper analyses the value of unemployment insurance exploiting rich administrative data in Sweden on income, wealth, unemployment, and choices to buy supplemental UI coverage. We exploit this unique opportunity to revisit the consumption-based implementation, linking the value of insurance to the drop in consumption when unemployed, and compare this to a Revealed Preference approach based on the UI choices. We find that the consumption-based implementation underestimates the insurance valuation and also understates the heterogeneity across workers. State-dependent preferences seem important in explaining this wedge.

3:00pm - 3:30pm

Unemployment Insurance in a Context of High Informality

Joana Naritomi[1], **François Gerard**[2]
[1]LSE; [2]Columbia University

In this paper we study the insurance value of Unemployment Insurance (UI) systems in a context of high informality. The paper uses administrative data covering the universe of formal employment spells in Sao Paulo with administrative consumption data from receipts attached to individual identification number generated by a government's rewards program against VAT evasion. In addition to providing novel evidence on the insurance value of UI in contexts of high informality, we contribute to the debate on the design of UI systems in contexts of limited monitoring capacity by the government. Similarly to other middle-income countries, Brazil combines forced savings accounts with the more-usual monthly UI. We exploit rich administrative data, the timing of layoff and variation in the savings accounts balance to study the insurance value of state-contingent UI and forced savings accounts. The findings of this research contribute to the debate of UI design beyond developing countries contexts.

1:30pm - 3:30pm
IIRC, Ito Gallery 1

D03: Transfer programs

Session Chair: **Benjamin Michael Marx**, U. of Illinois at Urbana-Champaign

1:30pm - 2:00pm

Unemployment, Sick Leave and Health

Matthias Schön
Deutsche Bundesbank, Germany

This paper studies the relationships among sick leave, income and unemployment. It focuses on Germany with a generous sick leave regulation of 100% wage replacement, so that workers do not bear any direct costs from sick leave. Based on the German Socio-Economic Panel, I identify three stylized facts of sick leave in Germany. First, the number of sick leave days shows a strong pro-cyclical pattern. Second, the average use of sick leave is hump-shaped over income quintiles. Third, the number of days of sick leave is a strong predictor of future unemployment. I develop a structural model that rationalizes these facts. I argue that in the absence of direct costs of sick leave, the fear of future unemployment is the main driving force restraining sick leave. I calibrate the model to German data and conduct counterfactual policy analysis.

2:00pm - 2:30pm

Tax Refunds and Income Manipulation Evidence from the EITC

Florian Buhlmann[1], **Benjamin Elsner**[2], **Andreas Peichl**[1]
[1]Centre for European Economic Research (ZEW), Germany; [2]IZA - Institute for the Study of Labor, Germany

Welfare programs are important to reduce poverty but create incentives for recipients to maximize their income by reducing labor supply or manipulating taxable income. In this paper, we quantify such behavioral responses for the Earned Income Tax Credit (EITC) in the US. We exploit substantial variation in state-specific top-up rates over time and compare neighboring counties that straddle a state border, such that within a county pair workers with the same income receive different tax refunds. We document significant behavioral responses to changes in top-up rates. When a state introduces a top-up, the share of tax filers bunching at the first kink point increases by 0.27 p.p. Moreover, an increase in the top-up rate by 1 p.p increases the degree of bunching by 0.021 p.p. These point to important adverse responses to what is the largest welfare program in the US.

2:30pm - 3:00pm

Unintended Consequences? More Marriage, More Children, and the EITC

Jacob E Bastian
University of Michigan, United States of America

There has long been a concern that public assistance in the U.S. discourage marriage among lower-income couples. The Earned Income Tax Credit (EITC) provides a marriage bonus to some couples but a marriage penalty to others, and encourages some households to have more children but others to have less. The overall average effect of the EITC is therefore theoretically ambiguous and existing empirical evidence has been mixed. Using over 30 years of household panel data, I find that state EITC expansions lead to increases in both fertility and marriage and decreases in non-marital cohabitation. Results give pause to concerns about the negative effects of the EITC on marriage. These results also imply that some estimates in the EITC literature may be biased, since endogenous switching from the control to the treatment group (defined by marital status or number of children) would violate the stable-group-composition condition required by difference in differences.

3:00pm - 3:30pm

ProPelled: The Effects of Grants on Graduation and Earnings

Jeffrey T. Denning[1], **Benjamin M. Marx**[2], **Lesley J. Turner**[3]
[1]Brigham Young University, United States of America; [2]U. of Illinois at Urbana-Champaign, United States of America; [3]University of Maryland, United States of America

We estimate the effect of grant aid on poor students' college graduation and earnings. To measure these effects we use administrative data from Texas and exploit a discontinuity in grant generosity as a function of family income. We find that this additional grant aid has small effects in the year of receipt but increases college persistence and graduation rates. Eligibility for additional grant also increases earnings beginning 4 years after entry and extending to the end of our observable time frame. Earnings effects are large, resulting in increases in income tax revenue that are sufficient for the government to recuperate the full cost of the additional grant aid within ten years. We present a theoretical model to interpret these results and derive welfare implications.

1:30pm - 3:30pm
IIRC, Seminar Room

D04: Taxation

Session Chair: **Zohal Hessami**, University of Konstanz

1:30pm - 2:00pm

Firm Responses to Interest Barrier: Empirical Evidence

Jarkko Harju[1,2], **Ilpo Kauppinen**[1], **Olli Ropponen**[1]
[1]VATT Institute for Economic Research, Finland; [2]CESifo

This paper studies the effects of an interest barrier that was introduced in Finland to restrict the profit-shifting opportunities of multinational enterprises (MNEs). We employ full population data of Finnish, Swedish and Danish MNEs and a difference-in-differences methodology, where Swedish and Danish MNEs serve as a control group. We find that Finnish MNEs responded to the interest barrier by decreasing their financial expenses. Subsidiaries decreased also their long-term debt levels. We do not find evidence of debt-shifting being replaced by transfer pricing. Neither do we find evidence of changes in output, suggesting that the interest barrier did not create distortions by affecting the real activity of MNEs.

2:00pm - 2:30pm

Income Inequality, Small Business Taxation and Lobbying

Joe Lesica
McMaster University, Canada

In a new theoretical framework, this paper shows that when the small business income tax is below the top individual rate, a further reduction of the small business tax is not income inequality neutral; it unambiguously increases the income shares of the top earners in the economy, the top 1%, by enriching small businesses owners who are able to retain more income within their businesses. Further, I supplement the theory with a small businesses interest group lobbying the government for a lower tax and show they can always `buy' a lower tax rate, regardless of the government's political ideology. An empirical investigation on a panel of Canadian provinces shows that small business tax rates are strongly negatively related with the top income shares and also that, since 1970s, lobbying was an important factor in reducing the small business taxes across Canadian provinces. This result is robust across various income definitions.

2:30pm - 3:00pm

Loss Carryover Provisions: Measuring Effects on Tax Symmetry and Automatic Stabilisation

Tibor Paul Hanappi
OECD, France

This paper analyses the effects of various carryover provisions on tax symmetry and stabilisation across a total of 34 OECD and non-OECD countries. To analyse each system I use a simulation approach, calculating a symmetry and a stabilisation measure based on a random set of adverse shocks to firms' revenues and three stylised investment projects varying with regard to economic and tax depreciation. The tax symmetry measure captures the effectiveness of actual carryover provisions, including carryforwards and carrybacks and other provisions, relative to full symmetry. The stabilisation measure captures the proportion of an adverse revenue shock on loss-making firms which is absorbed by the corporate tax system. Results show that combinations of several years of carryforwards and carrybacks imply that most tax systems achieve comparatively high levels of symmetry and stabilisation; however, refunding limits as well as interactions accelerated depreciation can imply significantly lower levels of symmetry and stabilisation.

3:00pm - 3:30pm

Using Fiscal Shocks at the County Level to Identify Strategic Interactions in Local Tax Rates

Christina Gathmann[1], **Zohal Hessami**[2]
[1]University of Heidelberg, Germany; [2]University of Konstanz, Germany

Strategic tax setting has emerged at the center of the political debate once again. At the same time, it has been notoriously difficult to identify the extent of strategic interactions in real-world tax policy. We propose a novel identification strategy to identify strategic interactions in tax rates. Specifically, we use fiscal shocks at the county level as an instrument for local tax changes. Using data on all municipalities in Germany that are located close to a county border, we identify tax mimicking by relating the business and property tax rate in a border municipality to the instrumented local tax rates of municipalities belonging to a different county. We find that local governments indeed respond positively to neighboring municipalities' changes in tax rates over the post-unification period (1992-2014). Additional results suggest that tax mimicking is more likely attributable to tax competition among municipalities rather than yardstick competition.

1:30pm - 3:30pm
Law, Room 102

D05: Capital in tax havens

Session Chair: **Tim Stolper**, Max Planck Institute for Tax Law and Public Finance

1:30pm - 2:00pm

Dirty money coming home: Capital flows into and out of tax havens

Jakob Miethe[1], **Lukas Menkhoff**[1,2]
[1]DIW Berlin, Germany; [2]Humbold University Berlin, Germany

We use recently released bilateral locational banking statistics of the Bank for International Settlements to show the full circle of international tax evasion via tax havens. Surprisingly, also white-washed money from tax havens is withdrawn from banks in non-havens if an information treaty is signed between both countries. This complements the stylized fact of such a reaction on outbound flows into tax havens. We find different time lags and other structures in these reactions which are economically plausible. However, it is puzzling that the effect of treaties on capital flows, and thus dirty money, seem to fade out recently.

2:00pm - 2:30pm

Taxing Hidden Wealth: The Consequences of U.S. Enforcement Initiatives on Evasive Foreign Accounts

Niels Johannesen[2], **Patrick Langetieg**[3], **Daniel Reck**[4], **Max Risch**[1], **Joel Slemrod**[1], **Bill Strang**[5]
[1]University of Michigan, USA; [2]University of Copenhagen, Denmark; [3]Internal Revenue Service, USA; [4]University of California, Berkeley, USA; [5]Office of Tax Analysis, U.S. Department of Treasury, USA

Beginning in 2009, the IRS initiated a sweeping enforcement effort to curb the use of offshore accounts to facilitate tax evasion, along with an amnesty program to encourage individuals with foreign accounts to become compliant with tax law. This paper examines the impact of increased enforcement activity on U.S. taxpayers' reports of foreign bank accounts and reported income on tax returns. We find that enforcement initiatives increased the number of individuals reporting foreign accounts to the IRS by at least vv percent, and was concentrated in tax havens. Much of the total effect of enforcement on compliance arose from individuals who simply started declaring income in foreign accounts without admitting to any prior evasion or underreporting.

2:30pm - 3:00pm

Are Tax Havens Good? Implications Of The Crackdown On Secrecy

Alfons J. Weichenrieder, **Fangying Xu**
Goethe University Frankfurt, Germany

While parts of the economic literature emphasizes possible positive effects of tax havens on high-tax countries, the present paper argues that proponents of positive effects may have started from questionable premises, in particular when it comes to the effects that tax havens have for emerging markets like China and India. We reconsider the effect of tax havens if countries can differentiate tax rates conditional on foreign ownership of firms, but tax-haven secrecy makes identification of ultimate ownership difficult. In this setting, we derive positive welfare effects of a crackdown on tax haven secrecy.

3:00pm - 3:30pm

The deterrence effect of whistleblowing: An event study of leaked customer information from banks in tax havens

Niels Johannesen[1], **Tim Stolper**[2]
[1]University of Copenhagen, Denmark; [2]Max Planck Institute for Tax Law and Public Finance, Germany

We document that the first leak of customer information from a tax haven bank caused a significant decrease in the market value of Swiss banks known to be assisting with tax evasion and that the decrease was largest for the banks most strongly involved. These findings suggest that markets expected the leak to increase the perceived risk of committing and assisting with tax evasion and thus to lower both demand and supply in the market for criminal offshore banking services. This interpretation finds support in further evidence that the leak caused a sharp drop in foreign-owned deposits in tax havens.

1:30pm - 3:30pm
Kojima, Seminar Room 2

D06: Banking regulation

Session Chair: **Giacomo Ricotti**, Banca d'Italia

1:30pm - 2:00pm

The Effect Of Supranational Banking Supervision On The Financial Sector: Event Study Evidence From Europe

Florian Loipersberger
Ludwig Maximilian University of Munich, Germany

This paper investigates how the introduction of the Single Supervisory Mechanism, the European Union's implementation of harmonized banking supervision, has affected the banking sector in Europe. I perform an event study on banks' stock returns and find evidence for small but significant positive effects. A potential hypothesis for this result is the fact that a single supervisory authority can take spillover effects between countries into account and is therefore able to stabilize the European banking sector. Splitting the sample by an indicator for supervisory power, an indicator for corruption and by Debt/GDP reveals that the positive impact of the SSM was stronger for banks in countries that perform poorly with respect to these measures.

2:00pm - 2:30pm

Moral Hazard, Regulation and Taxation of the Banking Industry

Isabel Strecker, Wolfgang Eggert
University of Freiburg, Germany

This paper analyzes the implementation of a VAT (value-added tax) concerning its impact on banks' risk-taking behavior. We consider banks' risk-taking behavior in a dynamic model. Removing VAT exemptions and implementing VAT for financial products increases banks' incentives to reduce risk. Therefore, the banks' risk preference in the starting period is essential for the calculations of this paper. First, we analyze VAT implementation separately, and after that we analyze VAT associated with capital requirement rules.

2:30pm - 3:00pm

Taxes and bank capital structure: new evidence from Europe

Serena Fatica, Elisa Ossola
European Commission, Italy

In this paper we investigate whether capital structure choices of multinational banking groups in Europe are sensitive to corporate taxation. Using bank-level balance sheet data for European banking groups over the period from 2008 to 2014, we find that the leverage of bank subsidiaries depends on national tax rates as well as on international tax rate differences reflecting international debt shifting within banking groups. While the domestic effect is still predominant, neglecting the international channel might lead to significantly understate the impact of corporate taxes on bank leverage.

3:00pm - 3:30pm

The Effects of Tax on Bank Liability Structure

Giacomo Ricotti[1], Leonardo Gambacorta[2], Suresh Sundaresan[3], Zhenyu Wang[4]
[1]Banca d'Italia, Italy; [2]Bank for International Settlements; [3]Columbia University, Graduate School of Business; [4]Indiana University, Kelley School of Business

This paper examines the effects of taxation on the liability structure of banks. We derive testable predictions from a dynamic model of optimal bank liability structure that incorporates bank runs, regulatory closure and endogenous default. Using the supervisory data provided by the Bank of Italy, we empirically test these predictions by exploiting exogenous variations of the Italian tax rates on productive activities (IRAP) across regions and over time (especially since the global financial crisis). We show that banks endogenously respond to a reduction in tax rates by reducing non-deposit liabilities more than deposits in addition to lowering leverage. The response on the asset side depends on the financial strength of the bank: well-capitalized banks respond to a reduction in tax rates by increasing their assets, but poorly-capitalized banks respond by cleaning up their balance sheet.

1:30pm - 3:30pm
Kojima, Seminar Room 3

D07: Municipal mergers

Session Chair: **Marko Koethenbuerger**, ETH Zurich

1:30pm - 2:00pm

Capitalization and Municipal Mergers: An Evaluation of the Heisei Territorial Reform in Japan

Masayoshi Hayashi, Takafumi Suzuki
The University of Tokyo, Japan

This paper evaluates the effects of municipal mergers with the use of capitalization theory, employing data on the massive number of municipal mergers during the *Heisei* territorial reform and a large and detailed dataset of land prices compiled by the Japanese government. We allow the effects of municipal mergers to vary over time and by the population of pre-merger municipalities. Our results show that (i) the effects exhibit small values over the first five years, then increase to reach the highest values in the eighth year, and start to decrease thereafter; and (ii) larger municipalities before amalgamation could enjoy more net benefits than those in “non-large” ones, with an earlier timing of these benefits’ realization. We also consider the effects of the second and/or third rounds of municipal mergers and show that (iii) more-than-once mergers within a short period would be harmful and (iv) this adverse effects aggravate in larger municipalities.

2:00pm - 2:30pm

Does municipal mergers internalize spatial spillover effects? Empirical evidence from Japanese municipalities

Hitoshi Saito[1], Haruaki Hirota[2], Hideo Yunoue[3], Miki Miyaki[4]
[1]Kobe International University, Japan; [2]Musashi University, Japan; [3]University of Hyogo, Japan; [4]Rikkyo University, Japan

This paper investigates whether municipal mergers could internalize spatial spillover effects by comparing mergers before and after they occur. A spatial spillover effect occurs when the benefit of a local public service spreads across not only its own administrative district but also into neighboring ones. Under such circumstances, spatial spillover effects might be internalized through municipal mergers. In Japan, large-scale municipal mergers took place in FY2004 and FY2005. We examine whether municipal mergers internalize spatial spillover effects, focusing on Japanese local public library services, by applying cross-sectional spatial autoregressive models. As a result, we found that there are spatial spillover effects in public library services both in FY2001 (before) and in FY2008 (after). We also found that the impact of such spillovers in FY2008 is smaller than that in FY2001. The results imply that municipal mergers could at least partially internalize spatial spillover effects among municipalities.

2:30pm - 3:00pm

Regional Distribution of Political Power and Effects of Municipal Mergers

Oskari Harjunen[2,3], Tuukka Saarimaa[1], Janne Tukiainen[1,4]

[1]VATT Institute for Economic Research; [2]Aalto University School of Economics; [3]City of Helsinki Urban Facts; [4]London School of Economics

Using geocoded data on public sector jobs, house transactions and local politicians' place of residence, we study the effects of municipal mergers at the pre-merger municipality level. We find that on average the overall merger level fiscal outcomes evolve in the same way in the mergers as in a control group of hypothetical mergers that did not realize. These merger level findings, however, hide substantial heterogeneity within the mergers. In particular, relatively small municipalities that gained only limited political representation in the new post-merger council experience a decrease in local public jobs in administration and health care sectors relative to the regions in the same merger that were more strongly represented. However, this is not reflected in differential development in house prices or population levels suggesting that smaller merging municipalities gain in quality of services what they lose in the proximity of services.

3:00pm - 3:30pm

Municipal Mergers and Local Activity: Evidence from Germany

Gabriel Loumeau, Marko Koethenbuerger, Peter Egger

ETH Zurich, Switzerland

In this paper, we study how administrative border reforms affect local activity. To do so, we make use of large scale municipal merger reforms in Germany to assess the effect of municipal mergers on local activity in space, an issue that is not addressed in the literature so far. To allow for a comparison of economic activity of a geographic unit over time, we use geo-coded light data, as well as local land use data. Adopting a difference-in-difference approach, we find evidence that municipalities absorbing their merging partners experience a significant increase in local activity; while municipalities being absorbed experience a decrease in local activity. The net effect of the reform appears positive. Moreover, we provide evidence that these changes in local activity are driven by migration across merging partners.

1:30pm - 3:30pm
Law, Room 301

D08: Shadow Economy and Corruption

Session Chair: **Friedrich Schneider**, University of Linz

1:30pm - 2:00pm

Compliance Costs, Corruption and the Differentiation of Bureaucratic Services

André Seidel

TU-Dresden, Germany

How to fight petty day-to-day corruption is a question often debated by politicians, by the public and in the economic literature. Early studies have noted that a simple and well-known way to fight day-to-day corruption is to create competition among corrupt officials. This paper shows that even a benevolent government might not encourage competition among officials in a way that eliminates corruption. This is due to a tradeoff between corruption and compliance costs. More differentiated bureaucratic services decrease compliance costs but increase the leeway for extortion. The analysis further reveals that exogenous shocks, for example in the form of foreign aid that aims to improve anti-corruption capacities, may prompt a benevolent government to increase the differentiation of bureaucratic services, thereby leading to an increase in corruption.

2:00pm - 2:30pm

Minimum Quality Standards, Non-Compliance, and Government Behavior

Jan S. Vosswinkel[1], Laura Birg[2]

[1]Nuertingen-Geislingen University, Germany; [2]University of Göttingen

This paper studies the effect of non-compliance with a minimum quality standard on prices, quality, and welfare in a vertical differentiation model with a high quality firm and a low quality firm. Non-compliance with a minimum quality standard by the low-quality firm reduces quality levels of both firms and shifts demand from the low-quality firm to the high-quality firm. Under non-compliance, an increase in the standard increases the quality of both products and shifts demand from the high-quality firm to the low-quality firm. An increase in monitoring effort decreases the quality level of the low-quality firm and shifts demand from the low-quality firm to the high-quality firm.

2:30pm - 3:00pm

Shadow Economies around the World: New Results 152 Countries over 1991-2015

Friedrich Schneider[1], Leandro Medina[2]

[1]University of Linz, Austria; [2]IMF Washington, D.C.

Using the MIMIC method this paper is a first attempt to estimate the size and deveolpment of the shadow economy of 152 countries over the period 1991 to 2015.

In addition to performing a variety of robustness tests, this paper explicitely adresses endogeneity concerns to the use of GDP as cause and indicator by using the light indicator approach as proxy for the size of the economy. The average size of the shadow economy of these 152 countries over 1991-2015 is 32.5% of official GDP, which was 34.8% in 1991 and dcreased to 30.66% in 2015. The lowest size of the shadow economy have OECD countries with18.7% and the highest value have American and Sub-Saharan countries with 39.7%

1:30pm - 3:30pm
Kojima, Kojima Conference Room

D09: Corporate tax rate cuts and credits

Session Chair: **Claudio A. Agostini**, Universidad Adolfo Ibanez

1:30pm - 2:00pm

Firm Take-Up Rate of A Corporate Income Tax Cut: Evidence from Vietnam

Anh Thu Pham
George Mason University, United States of America

This paper examines whether Vietnamese firms adopted an optional and temporary cut in corporate income taxes offered by the government following the latest financial crisis. The government provided firms below certain asset and employment thresholds with an opportunity to claim a 30% corporate tax cut in three separate years: 2009, 2011, and 2012. Using panel data on Vietnamese firms, I find a puzzling fact: only about 40-60% of eligible firms took advantage of this program, even though there was no monetary cost associated with claiming the credit. I examine possible explanations for the observed behavior and conclude that low awareness explained the lack of full tax adoption among eligible firms. Additionally, firms were less likely to claim the tax cut if they had a high degree of tax avoidance in the past (measured by the accounting effective tax rate, the debt-to-revenue ratio, and the degree of paper trail).

2:00pm - 2:30pm

Incidence of corporate tax credit on profits, wages and employment: the case of France

Clément Carbonnier[1,3], Clément Malgouyres[2], Loriane Py[2], Camille Urvoy[3]
[1]Université de Cergy-Pontoise THEMA, France; [2]Banque de France, France; [3]Sciences Po LIEPP, France

This paper exploits a far-reaching French reform and a rich set of administrative data to evaluate the impact of a corporate tax credit aimed at reducing labor costs. The estimation methodology rely on within matching cells double difference, instrumented by the intensity of the intention to treat. Our results show that this relatively large tax break - about 17 billion euros per year, 0.8\% of GDP - does not succeed in boosting employment in the first two years after being set. However they suggest that firms used the CICE to restore their margins. Moreover wages have increased significantly in more intensively treated firms, particularly those of white-collar employees. These results cast doubts regarding the effectiveness of such tax credits to boost employment. More importantly, they also provide new quasi-experimental evidence regarding rent sharing in the labor market.

2:30pm - 3:00pm

The International Development of Corporate Tax Rates and Revenues Revisited

Clemens Fuest, Felix Sebastian Hugger, Susanne Simone Wildgruber
Ludwig Maximilian University of Munich, Germany

This paper uses data from 190 countries for the time period 1965–2017 to study the development of corporate tax rates and revenues. We find a robust Laffer curve type relationship between rates and revenues from corporate taxation. Synthetic control group estimations on selected tax reforms suggest that the identified Laffer curve relationship may reflect rather long-term adjustments.

Results from the macro data set are complemented by evidence from a large firm-level dataset on European countries for the period from 2001 to 2010. Using this data, we find a close correlation between corporate profitability and tax revenue. We also find significant differences in the effective tax rates across industries and firm sizes within countries and over time.

3:00pm - 3:30pm

Special Tax Regimes for Small Businesses and Tax Planning at the Individual Level: Evidence from Chile

Claudio A. Agostini[1], Eduardo Engel[2], Andrea Repetto[1], Damian Vergara[2]
[1]Universidad Adolfo Ibanez, Chile; [2]Universidad de Chile

The Chilean tax system has several special tax regimes (STR) for small businesses. Even though they reduce compliance costs, they increase the complexity of the tax system and can be used as tax avoidance channels by high income taxpayers. This paper analyses the latter behavior. There are three stylized facts of STRs use that toghether are consistent with strategic behavior: STRs are massively used, are mainly used by high income taxpayers, and their usage appeared to be part of a businesses portfolio. After rationalizing the stylized facts with a simple model, we use administrative taxpayers data to provide empirical evidence about strategic behaviors regarding STRs usage. The results show that after a reform that made one STR more restrictive, reported individual incomes from businesses filing under a STR decreased between 10% and 15%, and income from alternative sources increased, resulting in higher taxable incomes between 4% and 7%.

1:30pm - 3:30pm
Fukutake, Fukutake Learning Studio 1

D10: Optimal Taxation

Session Chair: **Floris Zoutman**, NHH Norwegian School of Economics

1:30pm - 2:00pm

Optimal Income Taxation with Composition Effects

Laurence Jacquet[2], Etienne Lehmann[1]
[1]CRED University Paris II, France; [2]THEMA - University of Cergy-Pontoise

We study the optimal nonlinear income tax problem with unobservable multidimensional heterogeneity. The obtained optimal tax formula generalizes the standard one by taking means of sufficient statistics among the distinct individuals who earn the same income. The fact that these individuals differ along several characteristics brings a new source of endogeneity to the tax model that we call composition effects. We emphasize that composition effects may substantially affect optimal marginal tax rates, especially for very high income levels. We provide a sufficient condition for optimal marginal tax rates to be positive. Finally, we highlight the equivalence between the assumptions required to use the tax perturbation approach and the assumptions subjacent to the first-order mechanism design approach, both being used in the literature.

2:00pm - 2:30pm

Optimal Redistribution with Publicly-Provided Inputs and Income Taxation

Luciano Greco, **Thomas Bassetti**
University of Padua, Italy

Most countries provide productive inputs, such as healthcare or education, to reduce poverty raising the incomes of the poor. Assuming that individuals are heterogeneous in terms of inherited capabilities, we show that the optimal redistributive policy strongly depends on whether capabilities and input investments are complements or substitutes in the wage function. We find that in an economy characterized by only two types of households (i.e., high- and low-capability), the public provision is welfare improving only when capability and input are economic complements. In contrast, if the distribution of household types is continuous, the public provision scheme is affected by the impossibility to discriminate between contiguous types and an inclusive regime in which all households opt for the public Provision is optimal only when capability and input are economic substitutes. Finally, using numerical simulations, we show how the presence of income effects in the utility function affects the optimal policy.

2:30pm - 3:00pm

Optimal Taxation Of Capital Income When Capital Returns Are Heterogeneous

Aart Gerritsen[1], **Bas Jacobs**[1], **Alexandra V. Rusu**[1], **Kevin Spiritus**[2]
[1]Erasmus University Rotterdam, Netherlands; [2]KU Leuven, Netherlands

We derive optimal non-linear taxes on labor and capital income in a two-period life-cycle extension of the Mirrlees (1971) model, where an individual's ability determines both labor income and capital income. Capital income should optimally be taxed if capital returns correlate positively with ability, because -- conditional on labor income -- the tax base for capital income provides information about an individual's ability. The tax on capital income therefore provides distributional benefits over and above the redistributive benefits of the tax on labor income. The optimal capital-income tax strikes a balance between taxing rents in capital returns and distorting savings.

3:00pm - 3:30pm

As Easy as ABC? Multidimensional Screening in Public Finance

Sander Renes[1], **Floris Zoutman**[2]
[1]Erasmus School of Economics; [2]NHH Norwegian School of Economics, Norwegian Center of Taxation

We characterize the second-best allocation in a Mirrleesian optimal tax model where agents differ in multiple dimensions and the planner can tax multiple goods non-linearly. We develop a new method to solve the partial differential equation that describe the optimum regardless of the dimensionality of the problem. We show the optimal tax system is described by a multidimensional version of Diamond's (1998) and Saez' (2001) ABC-formula, which can be calibrated using empirical elasticities. We use our approach to simulate the optimal tax system in a couples' economy calibrated to UK data. We find that the marginal tax rate of a spouse is U-shaped in his/her own earnings and U-shaped in the earnings of the partner. Top tax rates for males range between 15-60 percent depending on the earnings of his spouse. Optimal tax rates for males are generally much higher than for females.

1:30pm - 3:30pm

Fukutake, Fukutake Learning Studio 2

D11: Tax enforcement

Session Chair: **Hyejeong SIM**, National Assembly Budget Office

1:30pm - 2:00pm

Tax Evasion with a Conscience

Martin Dufwenberg[1,2], **Katarina Nordblom**[2]
[1]University of Arizona, USA; [2]University of Gothenburg, Sweden

The paper presents a game between taxpayer and tax authority and introduces simple guilt and guilt from blame in the tax-evasion setting. We find that with guilt aversion, the tax authority needs to inspect less in equilibrium. Moreover, fines may be superior to imprisonment as punishment and if tax returns are public information less inspection is needed in equilibrium than if tax returns are not known to the public.

2:00pm - 2:30pm

Enforce Tax Compliance, But Cautiously: The Role Of Trust In Authorities and Power Of Authorities

Stefanos Alexander Tsikas
Leibniz University Hannover, Germany

The “Slippery Slope Framework” hypothesizes that (an individual's) tax compliance is determined by both the tax authority's powerfulness and its trustworthiness, and that the two dimensions moderate each other. By employing a within-country fixed effects analysis for 25 European countries, this paper tests the conjecture that a slippery slope exists also on the aggregate level. Results show that both trust and power are positively correlated with higher tax compliance. Trust and power also moderate each other: the lower trust, the greater the compliance-increasing impact of power. However, the positive effect decreases with increasing coercion. Strong deterrence policies may eventually damage tax compliance.

2:30pm - 3:00pm

Distributional Implications of Use Tax Enforcement: Evidence from U.S. States' Voluntary Collection Agreements

Eleanor Wilking, Tejaswi Velayudhan, Yeliz Kacamak
University of Michigan, United States of America

What are the distributional implications of enforcing use taxes? The answer depends in part on whether pre-policy compliance by consumers differed systematically by income level; if low income households spent proportionately more on effectively untaxed goods, a revenue neutral increase in enforcement will increase the tax burden on these households. We exploit variation in the timing of voluntary tax collection agreements between states and online retailers to understand the empirical consequences of eliminating an important sales tax evasion channel. Using detailed panel data on consumers' purchases, we examine participation and intensity in online purchases by income quartile. Using product information, we explore heterogeneity in substitution between online and physical retailers. While we find little evidence of differential response by income on the intensive margin, extremely low participation in online retail purchases by lowest income quartile prior to the policy suggests a shift in the tax burden to more affluent households.

3:00pm - 3:30pm

Empirical Evidence of the Damaging Discretionary Behaviors of the Tax Administration;A Korean Perspective

Hyejeong SIM
National Assembly Budget Office, Korea, Republic of (South Korea)

Does the tax authority use discretion in adjusting their tax collecting efforts according to the revenue condition? If it does, what are the measures? This paper tried to detect the discretionary behaviors of the tax administration in a Korean context. For doing this, I estimate the correlation between some variables that represent the discretionary behaviors of the tax administration and the progress ratio of tax collection. This analysis finds that there is strong evidence for the discretionary behaviors of the tax administration. This means that the intensity of tax collecting efforts has been changes according to the conditions of tax collection. The scale of the discretionary behaviors of the tax administration is estimated at 2.9% of total tax revenue(average absolute-value in 1975-2015).

1:30pm - 3:30pm

Fukutake, Fukutake Learning Studio 3

D12: Low income taxation

Session Chair: **Cortnie Anne Shupe**, DIW Berlin

1:30pm - 2:00pm

Striking A Balance: Optimal Tax Policy With Labor Market Duality

Gilbert Mbara[1], Joanna Tyrowicz[1,2], Ryszard Kokoszczynski[1,2]
[1]University of Warsaw, Poland; [2]National Bank of Poland

We develop a dynamic general equilibrium model in which firms may evade the employer contribution component of social security taxes by offering some workers “secondary contracts”. When calibrated, the model yields estimates of secondary labor market participation consistent with empirical evidence for the EU14 countries and the US. We investigate the optimal mix of the avoidable and unavoidable components of labor taxes and analyze the fiscal and macroeconomic effects of bringing the composition to the welfare optimum. We find that partial labor tax evasion makes tax revenues more elastic, but full tax compliance need not be a welfare enhancing policy mix.

2:00pm - 2:30pm

Evaluation of the Finnish Income Disregard Reform

Heikki Matias Palviainen
University of Tampere, Finland

High unemployment and economic crises have weakened the funding of welfare states across Western Europe. In 2002, the Finnish government introduced an earnings disregard reform aimed at improving the incentives of low-income individuals who receive last-resort social assistance. The aim of the reform was to decrease long-term unemployment and to provide better incentives to receive at least part-time work. This paper evaluates the employment effects of the reform using quasi-experimental design. The baseline results indicate non-significant effects on labour market outcomes, but sub-group analyses indicate statistically significant results for females, single-person households and individuals with earned income after an adjustment period.

2:30pm - 3:00pm

What happened to Short-Time Workers during and after the Great Recession? - Evidence from German Micro-Level Data

Sebastian Bernd Becker
Institute for Employment Research (IAB), Germany

Short-time work is considered a key factor of the so called German Labor Market Miracle. Besides the stabilizing effect on aggregate employment, we know only little about the job stability of individual participants. Using a unique dataset, I can observe labor market outcomes of workers during and after the Great Recession. I find that STW-participants have more stable jobs, i.e. a higher chance to keep their job compared to non-participants within the same firms. I furthermore find that selection into STW is not a randomized process. Apparently, firms do not use STW to protect high-skilled workers, but rather medium qualified workers with high tenure and age in certain occupations

3:00pm - 3:30pm

Work Incentives in Europe: The Effect of PTRs on Labor Supply Decisions

Cortnie Shupe, Charlotte Bartels
DIW Berlin, Germany

Many advanced economies implemented labor market reforms over the past decade in order to encourage higher labor force participation rates. Using the EUROMOD microsimulation model, we measure work incentives inherent in tax-bene t systems by computing Participation Tax Rates (PTRs) across the EU. We subsequently identify the impact of these disperse PTRs on the probability of employment by exploiting variation over time and across countries and implementing a Grouping IV estimator with individual fi xed effects. We find a strong, negative relationship between the PTR level and the probability of being employed, i.e., higher work incentives increase the participation probability. We find that the effect is larger for women than men and estimate an average participation elasticity for women of 0.28 and 0.07 for men. Several robustness checks and country-speci c elasticities remain to be estimated.

1:30pm - 3:30pm
Law, Room 203

D13: Decentralization

Session Chair: **Ryusuke Shinohara**, Hosei University

1:30pm - 2:00pm

Policy Diffusion and the Competition for Mobile Resources

Andrea Schneider
University of Oslo, Norway

This paper analyzes competition for mobile resources when a region can adopt a policy that has previously been implemented by another region. In equilibrium, the region with an initially low-quality reform adopts the high-quality reform. Since policies in different regions converge and agents are forward-looking, the model provides an explanation for low-response elasticities. Finally, the paper analyzes the effects of an increase in mobility on the quantity and quality of reforms.

2:00pm - 2:30pm

Laboratory Federalism With Public Funds Sharing

Ana B. Ania[2], Andreas Wagener[1]
[1]University of Hannover, Germany; [2]University of Vienna, Austria

We explore the role of public funds sharing in evolutionary models of decentralized fiscal interaction (laboratory federalism). For decentralized, rich-to-poor redistribution with labor mobility, evolutionary stability, i.e., the long-run outcome of imitation-and-experimentation dynamics, involves a complete breakdown of the welfare state. A suitably designed funds sharing scheme, however, can correct this failure and fully restore efficiency in evolutionary play. Surprisingly, the necessary properties of the sharing mechanism to support efficiency turn out to be the same as those required for corrected Nash play to be efficient. Public funds sharing, thus, is a powerful corrective device in decentralized fiscal interaction and tax competition for a variety of ways how government play the game.

2:30pm - 3:00pm

Decentralized Leadership

Emilson Silva
University of Alberta, Canada

This paper studies the efficiency of decentralized leadership in federations where selfish regional governments provide regional and federal public goods and the benevolent central government implements interregional earmarked and income transfers. Without residential mobility, unlimited decentralized leadership is efficient only if the center implements redistributive interregional income and earmarked transfers to equate consumption of private and regional public goods across regions. Such policies perfectly align the incentives of the selfish regional governments. With imperfect residential mobility, decentralized leadership is efficient if the center adopts redistributive interregional income and earmarked policies and there is a common labor market in the federation.

3:00pm - 3:30pm

Self-representation Equilibria And Cost-matching Grants With The Lindahl Price In Interregional Bargaining Over Public Projects

Ryusuke Shinohara
Hosei University, Japan

We examine whether a **strategic delegation** problem in interregional negotiations can be solved by a governmental policy. It is well-known as a strategic delegation problem that when an interregional negotiation is delegated to representatives, each region strategically elects its representative, which results in inefficient negotiation outcomes. We focus on a **cost-matching grant**, a kind of subsidy policy. We find that there is not necessarily an optimal cost-matching grant to restore the efficiency of negotiation outcomes because the introduction of the grant generates a new kind of manipulation of breakdown outcomes. We further show that if a representative can be reelected after the negotiation breaks down, then the breakdown outcome is coordinated so that there exists an optimal cost-matching grant to achieve the efficient allocation through the negotiation.

1:30pm - 3:30pm
Law, Room 305

D14: Corporate taxation and profit shifting

Session Chair: **Petr Janský**, Charles University

1:30pm - 2:00pm

Taxing Intellectual Property in the Global Economy: A Plea for Regulated and Internationally Coordinated Profit Splitting

Wolfram F. Richter

TU Dortmund University, Germany

Inter-country equity in the taxation of IP is a contentious issue. With its BEPS initiative, the OECD aims at taxing in accordance with value creation even though there are admitted difficulties in determining the actual place of value creation. The European Commission promotes the introduction of unitary taxation. The proposal's drawback is that it lacks incentive compatibility in information exchange. Furthermore, it stipulates a cost-dependent apportionment of the common consolidated corporate tax base that incentivizes locating R&D in low-tax countries. Against this background, this paper makes a case for an internationally regulated split of the profit earned with imported IP.

2:00pm - 2:30pm

Tax Motivated Transfer Price Manipulation in South Africa

Ludvig Wier
University of Copenhagen, Denmark

This paper provides the first direct systematic evidence of profit shifting through transfer price manipulation in a developing country. Using South African firm-level customs data for 2011-2015, I directly test for transfer price deviations from arm's-length pricing. I find that multinational firms operating in South Africa manipulate transfer prices in order to shift taxable profits to low tax destinations. Using the same approach, I further investigate the implications of a recent transfer price legislation reform, which implemented a series of OECD recommendations in South Africa. I find that, although the reform limited transfer price manipulation in the immediate aftermath, the prevalence of transfer price manipulation returned to its original level after three years.

2:30pm - 3:00pm

Opening Pandora's Box - Do Intellectual Property Boxes Foster Innovation?

Vincent Dekker
University of Hohenheim, Stuttgart, Germany

Intellectual property boxes are designed to grant tax exemptions or reductions for intellectual property such as patents. Countries implementing a patent box regime argue that lower tax rates on income from the use of patents foster innovation. Critics accuse theses regimes of creating incentives for multinational enterprises to shift intangible assets. Using fixed effects estimation techniques on a panel of patent applications in the 34 OECD countries over the years 1990 -- 2009, it is shown that intellectual property box regimes increase the number of foreign developed (shifted) patents at the expense of home developed patents that are crowded out to some extent. These results are robust to different model specifications and especially the attraction of foreign developed patents is also documented in a per sector analysis. The total number of patent applications does not seem to be influenced by the introduction of an intellectual property box regime.

3:00pm - 3:30pm

Estimating the Scale of Corporate Profit Shifting: Tax Revenue Losses Related to Foreign Direct Investment

Petr Janský, **Miroslav Palanský**
Charles University, Czech Republic

Corporate taxation of multinational enterprises (MNEs) plays an important role in revenue mobilization efforts, and these are hampered when MNEs avoid paying corporate taxes. In this paper, we estimate the scale of international corporate tax avoidance using foreign direct investment data. We use and extend the methodology developed by the United Nations Conference on Trade and Development to estimate tax revenue losses related to inward investment stocks as directly linked to tax havens and offshore financial centres. For the first time, we provide detailed country-level estimates. This enables us to study the effects of tax avoidance practices on individual countries' government revenues as well as to compare their impact on European Union countries and lower-income countries.

1:30pm - 3:30pm **IIRC, Ito Hall**	**D15: Tax Policy in a Post-Brexit World (ITAX Panel)** Session Chair: **Clemens Fuest**, ifo Institute and University of Munich Discussant Paper 1: **Benjamin Lockwood**, Uni of Warwick Discussant Paper 2: **Giorgia Maffini**, OECD Discussant Paper 3: **Hans-Werner Sinn**, University of Munich
3:30pm - 6:30pm	**Excursion**

Date: Sunday, 20/Aug/2017

9:00am - 10:30am
KFC, KFC Hall 2nd

E01: Tax coordination
Session Chair: **Hikaru Ogawa**, University of Tokyo

9:00am - 9:30am

Tax Coordination among Moderate Leviathans

Chikara Yamaguchi
Hiroshima University, Japan

This study investigates how tax coordination occurs among governments that are neither entirely benevolent nor wholly self-serving in an asymmetric three-country model of tax competition. Although tax coordination internalizes both fiscal and pecuniary externalities among member countries, it simultaneously encourages members' incentives to deviate from the tax union. The results show that partial tax coordination may increase or decrease the welfare of a non-member country depending on the government's attitudes toward policy objectives, which crucially determine the degree of both externalities. The most noteworthy finding is that the grand coalition may be stable when governments are almost benevolent. Policymakers's attitudes toward Leviathans make fiscal externality more rigorous, and thus, increase the likelihood of partial tax coordination that excludes medium-sized countries.

9:30am - 10:00am

Does Equalization Transfer Enhance Partial Tax Cooperation?

Wenming Wang[1], Keisuke Kawachi[2], Hikaru Ogawa[3]
[1]Hunan University, People's Republic of China; [2]Mie University, Japan; [3]Graduate School of Economics and Graduate School of Public Policy, University of Tokyo, Japan

This paper analyzes the effect of equalization transfer scheme on partial tax cooperation condition in a repeated game setting. It is shown that in order to achieve partial tax cooperation between two capital-rich (exporting) countries, the full equalization transfer scheme is superior to the partial equalization transfer scheme, whereas in order to achieve partial tax cooperation between two capital-poor (importing) countries, the partial equalization transfer scheme is superior to the full equalization transfer scheme.

10:00am - 10:30am

Who Benefits From Partial Tax Coordination

Yutao HAN
University of International Business and Economics, China, People's Republic of

In this paper, we investigate whether partial tax coordination is beneficial to countries within and outside a tax union, in which countries are supposed to compete in taxes and infrastructure. Our results demonstrate that, a subgroup of countries agreeing on a common tax rate, can harm both member and nonmember states. This is in contrast to the classical findings that partial tax harmonization is Pareto improving. When a minimum tax rate is imposed within a tax union, we demonstrate that it does not necessarily improve the welfare of the member countries.

Moreover, both the high tax and low tax countries can be worse off. This

conclusion is at odds with the classical result that a high tax country benefits from the imposition of a lower tax bound.

9:00am - 10:30am
KFC, Room 103

E03: Migration and Redistribution
Session Chair: **Michel Strawczynski**, Hebrew University of Jerusalem

9:00am - 9:30am

Immigration and Redistribution: Evidence from 8 Million Forced Migrants

Arnaud Chevalier[2], Benjamin Elsner[1], Andreas Lichter[1], Nico Pestel[1]
[1]Institute of Labor Economics (IZA), Germany; [2]Royal Holloway, University of London

This article shows that immigration can have a profound and persistent impact on redistribution. We illustrate this based on the sudden arrival of 8 million forced migrants in West Germany in the aftermath of WWII. These migrants, after having lost all their assets, were much poorer than the population in West Germany, but had full voting rights from the time of arrival. Based on panel data for 400 West German cities, we show that cities responded to this inflow by raising business taxes and taxes on farmland, while leaving property and wage bill taxes unchanged. Further analysis suggests that these results can be explained by changes in local voting patterns. We further document a long-lasting impact of this mass immigration on people's preferences for redistribution today. People living today in places with high inflows in the 1940s display markedly stronger preferences for a large government.

9:30am - 10:00am

Relocation of the Rich: Migration in Response to Top Tax Rate Changes from Spanish Reforms

Dirk Foremny[1], David Agrawal[2]
[1]Universitat de Barcelona / I.E.B., Spain; [2]University of Kentucky, USA

A recent Spanish tax reform granted regions the authority to set income tax rates, resulting in substantial tax differentials. We use individual-level information from Social Security records over a period of one decade. Conditional on moving, taxes have a significant effect on the location choice. A one percent increase in the net of tax rate for a region relative to others increases the probability of moving to that region by 1.5 percentage points. Focusing on the stock of top-taxpayers, we estimate a mobility elasticity of, at most, 0.25. Our model implies that the increase in tax revenue due to higher tax rates is larger than the loss in tax revenue from the out-flow of migration.

10:00am - 10:30am

The Effects of Permanent Income Tax Cuts on Emigration from Israel

Michel Strawczynski[1], **Yoram Margaliot**[2], **Tomer Blumkin**[3]

[1]Hebrew University of Jerusalem, Israel; [2]Tel Aviv University, Israel; [3]Ben Gurion University, Israel

Both the theoretical and the empirical literatures indicate that income tax cuts may have a significant impact on migration flows. Nonetheless, there is a paucity of empirical studies that systematically examine the effect of a general (as opposed to an ad-hoc) and a permanent income tax reduction on migration patterns. During the period 2004-2010 Israel implemented a substantial pre-announced income tax cut. In this paper we build an analytical framework for analyzing the effect of permanent income tax reductions on emigration and conduct an empirical analysis of their impact. We find that the permanent tax reduction reduced the emigration flows from Israel. This effect is stronger for workers in the low-tech sector than for their high-tech counterparts, and for younger workers who benefit from permanent tax reductions for a longer period during their careers, relative to older workers.

9:00am - 10:30am
KFC, KFC Hall

E04: Media and Elections

Session Chair: **Thushyanthan Baskaran**, University of Siegen

9:00am - 9:30am

Media content’s role in the making of a democrat: Evidence from East Germany

Tim Friehe[1], **Helge Müller**[2], **Florian Neumeier**[3]

[1]University of Marburg and CESifo Munich, Germany; [2]University of Marburg, Germany; [3]Ifo Institute Munich, Germany

This paper explores the causal influence of access to Western television programming on voting behavior. We exploit a natural experiment involving access to West German TV within the German Democratic Republic in which only geography and topography determined the allocation of individuals to treatment and control groups. Focusing on both the shares of extremist parties and voter turnout, we find that in the post-reunification decade in which TV content was harmonized, regions that already had access to Western TV broadcasts before reunification experience lower vote shares of extremist parties and higher voter turnout.

9:30am - 10:00am

Selling News Information To Consumers

Johannes Dittrich[1], **Heiko Karle**[2], **Heiner Schumacher**[3]

[1]University of Mannheim, Germany; [2]Frankfurt School of Finance & Management, Germany; [3]KU Leuven, Belgium

We develop a model of a two-sided media market, in which profit-maximizing media outlets first commit to the degree of horizontal and vertical differentiation of their news reports and then compete in prices and fees for users and advertisers. We interprete horizontal differentiation of news reports as ideological bias (Mullainathan and Shleifer, 2005) and vertical differentiation as facts bias (Gentzkow and Shapiro, 2011). We find that media outlets maximally differentiate only in one dimension in case they are financed by advertising revenues and direct charges to consumers (Pay-tv broadcasting). In case media outlets’ revenues consist solely of advertising revenues (Free-to-air broadcasting), differentiation will still be only in one dimension but less than maximum. We therefore predict that the transition from Pay-tv to Free-to-air broadcasting reduces the magnitude of both sorts of media bias and renders the regime of facts (ideological) bias less (more) likely to arise.

10:00am - 10:30am

Does the Election of a Female Leader Clear the Way for More Women in Politics?

Thushyanthan Baskaran[1], **Zohal Hessami**[2]

[1]University of Siegen, Germany; [2]University of Konstanz, Germany

Women are still underrepresented in politics and it remains unclear how this might change. Using unique hand-collected data for 109,017 candidates in four open-list local council elections (2001-2016) in all 426 municipalities of a German state, we investigate whether female council candidates receive more preferential votes when a female mayor has been recently elected into office. Based on RDD estimations for close mixed-gender races, we show that female council candidates advance more from their initial list rank when the mayor is female. This effect spreads to neighboring municipalities and leads to an increase in the share of female council members.

9:00am - 10:30am
KFC, Room 106

E05: Governance and rent seeking

Session Chair: **Vanghelis Vassilatos**, Athens University of Economics and Business

9:00am - 9:30am

Tax Incentives, Financial Constraints, and Firm Performance: Evidence from China

Yongzheng Liu[1], **Jie Mao**[2]

[1]Renmin University of China, China, People's Republic of; [2]University of International Business and Economics

China initiated a critical value-added tax reform in 2004. Completed in 2009, it introduced permanent tax credit for firms’ investments in fixed assets. We use a quasi-experimental design and a unique firm-level dataset covering all sizes of firms across a broad range of sectors and regions between 2005 and 2012, to test whether the reform promoted firms’ investment and productivity. We estimate that on average, the reform raised investment and productivity of the treated firms relative to the control firms by 8.7 percent and 3.8 percent, respectively. We also show that the positive effects tend to be strengthened for firms with credit constraints.

9:30am - 10:00am

Does Corruption Slow Down Innovation? Evidence from a Cointegrated Panel of U.S. States

Oguzhan Dincer
Illinois State University, United States of America

I investigate the long-run cointegrating relationship between corruption and innovative activity using annual data from 48 contiguous U.S. states between 1977 and 2013. To my knowledge this is first study using state level data which allow me to exploit the time series characteristics of the panel data and use Fully Modified OLS (FMOLS) in my estimations. The results of the FMOLS estimation indicate a negative relationship between the two supporting the results of the studies using data across countries. The results are robust to different specifications.

10:00am - 10:30am

Market and Political Power Interactions in Greece: An Empirical Investigation

Vanghelis Vassilatos[1], **Tryphon Kollintzas**[1], **Dimitris Papageorgiou**[2], **Efthymios Tsionas**[1]
[1]Athens University of Economics and Business, Greece; [2]Bank of Greece

Using a dynamic panel of 21 OECD countries, we find that, unlike the other OECD countries in the sample, wage setting institutions, competition conditions, public finances and external imbalances can account for the behavior of the public sector wage premium (WPR) and the self employed taxation gap (TSL) in Greece and to a lesser extent in Spain and Portugal, in a manner that is consistent with an “insiders-outsiders society” (IOS). That is, a politicoeconomic system characterized by groups of selfish elites that enjoy market power, but at the same time cooperate in influencing government in protecting and promoting their collective self interests. We find that WPR and TSL adversely affect both TFP and output growth. VAR analysis suggests that the shock propagation mechanism of WPR and TSL for Greece as well as Spain and Portugal, are quite different from the other OECD countries and indicate an IOS behaviour.

9:00am - 10:30am
KFC, Room 107

E06: Bailouts

Session Chair: **Albert Sole-Olle**, university of barcelona

9:00am - 9:30am

Too-Big-To-Fail in Federations?

Zarko Kalamov[1], **Klaas Staal**[2]
[1]TU Berlin, Germany; [2]Karlstad University, Sweden

We consider jurisdictions of different size providing local public goods with positive spillovers. The socially-efficient expenditure levels can be induced by matching grants, but jurisdictions can exploit the rationale behind this system to induce bailouts. We formalize the too-big-to-fail result of Wildasin (1997) by giving an analytical proof that it exists in a subgame-perfect Nash equilibrium. Furthermore, our model contains the too-big-to-fail and too-small-not-to-bail-out (Crivelli and Staal 2013) outcomes as special cases and we are the first to derive the conditions under which each result emerges.

9:30am - 10:00am

A Soft Spot for Bailouts: Regional Affiliation in a Federal Government

Willem Sas[1], **Amedeo Piolatto**[2]
[1]Department of Economics, KU Leuven; [2]Barcelona Economics Institute, University of Barcelona

This paper revisits the soft budget constraint problem, often stretching subnational public borrowing to the limit in multi-tiered, or federal countries. Focusing on the institutional design and political practice common to many federations, logrolling and regional affiliation are for the first time introduced to the theoretical analysis of soft budget constraints. In our inter-temporal model, a federal legislature of regionally elected representatives bargains on federal grants going to the states. As a result, voters elect federal candidates in favour of loose public spending. This strategic voting not only leads to overly generous bailout policies. Also, and compared to a setting where federal decision making does not follow from bargaining and regional affiliation, states over-borrow more inefficiently. Allowing for heterogeneity in state income and population does not affect this inefficient outcome lastly. Lower relative per capita incomes even boost federal generosity and subsequent over-borrowing by the states.

10:00am - 10:30am

Who's coming to the rescue? Revenue-sharing slumps and implicit bailouts during the Great Recession

Albert Sole-Olle
University of Barcelona, Spain

This paper analyzes the distribution of discretionary transfers from higher tiers of government in the process of local fiscal adjustment in the wake of a negative revenue shock in formula transfers. Spanish local governments experienced a 30% fall in their revenue-sharing revenues at the beginning of the Great Recession. We use a ‘difference-in-discontinuities’ design to identify the causal effect of that shock on the amount of discretionary grants provided by three higher tiers of government (i.e., central, regional, and provincial) and on other budget items (i.e., spending and taxation). We find that, on average, municipalities above and below the 5,000 inhabitant threshold did not differentially adjust their budgets during the crisis. Rather, we find that for the most indebted municipalities, a substantial share of the shock was absorbed by discretionary grants provided by regional and provincial governments.

9:00am - 10:30am
KFC, Room 108

E07: International agreements

Session Chair: **Inga Hardeck**, European University Viadrina

9:00am - 9:30am

The true art of the tax deal: Evidence on aid flows and bilateral double tax agreements

Julia Braun[1], **Martin Zagler**[2,3]

[1]Centre for European Economic Research (ZEW); [2]UPO University of Eastern Piedmont; [3]WU Vienna University of Economics and Business

Out of a total of 2,976 double tax agreements (DTAs), some 60% are signed between a developing and a developed economy. As DTAs shift taxing rights from capital importing to capital exporting countries, the prior would incur a loss. We demonstrate in a theoretical model that in a deal one country does not trump the other, but that the deal must be mutually beneficial. In the case of an asymmetric DTA, this requires compensation from the capital exporting country to the capital importing country. We provide empirical evidence that such compensation is indeed paid, for instance in the form of bilateral official development assistance, which increases on average by six million US$ in the year of the signature of a DTA.

9:30am - 10:00am

TTIP and Transparency in International Negotiations

Kai A. Konrad[1], **Marcel Thum**[2]

[1]Max Planck Institute for Tax Law and Public Finance, Germany; [2]TU Dresden, ifo Dresden, Germany

We study the role of transparency in international free-trade negotiations. In a simple ultimatum bargaining framework with incomplete information, enhanced transparency increases the likelihood of a free-trade agreement. The effect of enhanced transparency on the rents obtained by the bargaining party that becomes more transparent is ambiguous.

10:00am - 10:30am

Lobbying on the BEPS Project? Assessing the Relevance and Objectives of Different Interest Groups

Marcel Max, Christina Elschner, Inga Hardeck

European University Frankfurt (Oder), Germany

This paper investigates lobbying on the OECD Base Erosion and Profit Shifting (BEPS) Project. Using content analysis, we study comment letters on two draft reports of BEPS Action 7 on preventing the artificial avoidance of permanent establishment status. Action 7 triggered a strong debate and controversial opinions. During the course of the BEPS Project, NGOs critized that the OECD gave too much weight to comments by firms. We challenge these allegations and aim to provide broader empirical evidence on whether and how firms and other interest groups such as the tax profession and the civil society shape the BEPS Project. Based on text mining and manual coding of 158 comment letters, we find that in contrast to these allegations firms are relatively less influential. However, when looking on absolute numbers, firms sent most of the comment letters and made the majority of successful practical proposals.

9:00am - 10:30am
KFC, Room 109

E08: Behavioral biases

Session Chair: **Björn Kauder**, Ifo Institute and University of Munich

9:00am - 9:30am

HIdden Baggage: Behavioral Responses to Changes in Airline Ticket Tax Disclosure

Naomi Elisabeth Feldman, Sebastien Bradley

Federal Reserve Board, United States of America

We examine the impact on air travelers of an enforcement action issued by the U.S. Department of Transportation (DOT) in 2012 requiring that domestic air carriers and online travel agents incorporate all mandatory taxes and fees in their advertised fares. Consistent with the literature on tax salience, we nd quasi-experimental evidence that the more prominent display of tax-inclusive prices is associated with a reduction in tax incidence on consumers, and this e ect varies non-monotonically with market concentration. Ticket revenues are commensurately reduced, while passenger demandand average per-passenger tax revenue between origin and destination airport-pairs likewise decline following the introduction of full-fare advertising.

9:30am - 10:00am

Statutory Ages as Reference Points for Retirement: Evidence from Germany

Arthur Seibold

London School of Economics, United Kingdom

This paper presents evidence that statutory age thresholds such as the Early and the Normal Retirement Age serve as reference points for workers' retirement decisions, using novel administrative data covering the universe of German retirees. The analysis begins by documenting the very large bunching mass and observed elasticities at kinks in the lifetime budget constraint linked to statutory ages, while bunching at other budget constraint discontinuities is much more modest. Reduced-form estimation suggests an average retirement age elasticity between 0.1 and 0.3, and large and significant "statutory age effects" that occur independently of financial incentives. Further evidence on mechanisms indicates that the reduced-form findings cannot be explained by firm responses or informational issues. Finally, a model of retirement with reference-dependent preferences is employed to rationalize the observed patterns. Structural estimation of the model attributes between 50% and 80% of statutory age retirements to reference point effects.

10:00am - 10:30am

Behavioral Determinants of Proclaimed Support for Environment Protection Policies

Björn Kauder

Ifo Institute and University of Munich, Germany

Using a representative survey of German university students, we confirm that proclaimed support for environment protection policies depends on socio-cultural factors and political ideology. Unlike most related studies for other countries, we find that the environmental policy stance of German partisans does

not follow the left-right cleavage. Only about 25% of the social-democratic partisans wholeheartedly support environment protection policies, whereas 50% of the green partisans, who, in Germany, also belong to the political left, do so; and when controlling for socio-cultural influences, social-democratic partisans become undistinguishable from Christian-conservative and market-oriented partisans. Focusing on behavioral influences, we find that some of the respondents' psychological traits are not filtered through their political ideology but directly influence their proclaimed attitudes towards environment protection policies. We identify as important behavioral determinants the locus of control and psychological traits that capture the respondents' susceptibility to making use of expressive rhetoric.

9:00am - 10:30am
KFC, Room 100

E09: Schooling

Session Chair: **Stephanie Briel**, University of Hohenheim

9:00am - 9:30am

Short- and Long-Term Effects of Public School Choice

Mika Kortelainen[1], **Isa Kuosmanen**[2], **Liisa Laine**[3,4], **Miikka Rokkanen**[4]

[1]VATT Institute for Economic Research, Finland; [2]University of Helsinki; [3]University of Jyväskylä; [4]Columbia University

We study the short-term and long-term effects of a liberalization of school choice on various

educational and labor market outcomes. Our analysis exploits a reform implemented in the mid-1990s in Finland that allowed students to choose among public schools in their municipality. Our identification strategy is differences-in-differences with continuous treatment intensity. We find that the reform increased choice considerably especially in large municipalities. For the short-term effects, we find that school choice had a small, but positive effect on grades and for high school graduation on average. These effects are positively significant only

for students from high and middle socioeconomic groups. For the long-run effects, we find no

effects on earnings and small but positive effect on the probability of having a higher education.

The latter effect is only positive and significant for students from high and middle

income families.

9:30am - 10:00am

The effects of the Swedish upper secondary private school expansion

Karin Margret Edmark[1], **Carla Haelermans**[2], **Iftikhar Hussain**[3]

[1]Stockholm University, Sweden; [2]Maastricht University, Netherlands; [3]University of Sussex, UK

This paper has estimates the impact of the Swedish privately operated but publicly funded upper secondary schools. We make use of the large expansion of these schools that followed after the private and school choice reforms of the 1990s, and identify the effects by comparing students in different cohorts who reside in virtually the same geographical spot, but who have differential access to private schools due to school openings.

The main result indicate that male students benefitted from Vocational private school openings in terms of higher GPA, and higher probabilities to graduate on time and go on to university. Academic private school openings however seem to have had the reverse effect. It is likely that at least part of these affect work through changes in the types of educational tracks that students attend. For female students, the effects are overall smaller and often not statistically significantly different from zero.

10:00am - 10:30am

Leadership at School and the Formation of Character Skills

Stephanie Briel, **Aderonke Osikominu**

University of Hohenheim, Germany

Recent research suggests that leadership experiences during school time are positively associated with later educational attainment and labor market outcomes. So far little is known about the mechanisms behind these leadership premia. We analyze whether the engagement as class representative affects the formation of character skills. We exploit data from the German Socio-Economic Panel Study, providing a large, nationally representative sample with detailed information on behavioral measures. We address the selectivity of engagement as class representative with a flexible estimation strategy that is guided by an economic model of skill production. To estimate the ceteris paribus effect of being a class representative we combine a stratified propensity score matching approach with a flexible regression adjustment. We use different tests to check the plausibility and quality of our estimation strategy. Our findings are in line with the hypothesis that leadership experience during school time positively affects the development of character skills.

9:00am - 10:30am
KFC, Room 111

E10: Labor and capital taxation

Session Chair: **Kevin Spiritus**, KU Leuven

9:00am - 9:30am

Labour As A Utility Measure Reconsidered

Michael Ahlheim[1], **Oliver Frör**[2], **Minh Duc Nguyen**[3], **Antonia Rehl**[1], **Ute Siepmann**[1], **Pham Van Dinh**[3]

[1]University of Hohenheim, Stuttgart, Germany; [2]University of Koblenz-Landau,; [3]Vietnam National University of Agriculture

In Stated Preference studies for the appraisal of environmental projects in poor countries or regions it often turns out that the stated willingness to pay of people for environmental improvements, which is used as measure of individual welfare changes, is very low. This is often interpreted as the result of extremely tight budget constraints, which make it impossible that people express their true appreciation of an environmental project in terms of their willingness to pay for it. Therefore, it is sometimes suggested to use labour contributions instead of money as a numeraire to measure utility in such studies. In this paper we show theoretically and empirically that this suggestion is not compatible with the principles of welfare

theory because of several inconsistencies. We also illustrate the validity of our arguments empirically based on the results of a Contingent Valuation study conducted in a rural area in northern Vietnam.

9:30am - 10:00am

Capital and Labor Income Taxation in Small and Developing Countries

Besart Avdiu

Goethe University Frankfurt, Germany

This paper argues that smaller and poorer countries have lower optimal tax rates on capital and labor income than their larger and richer counterparts. Such differences in tax rates are observed empirically and the paper provides an alternative explanation for this observation. The model focuses on a closed economy, but is extended by introducing mobile capital. The difference in tax rates here is efficient and not due to tax competition. For the result, less than perfect competition is necessary. The intuition is that monopolistic markups distort markets in a similar way as taxes. Hence, optimal tax rates are inversely related to markups. I show theoretically that smaller and poorer countries have larger markups. Therefore, these countries have lower optimal tax rates. These rates increase in response to a market expansion that lowers markups. Empirical analysis of the banking industry supports the finding that smaller and poorer countries have larger markups.

10:00am - 10:30am

Optimal Mixed Taxation with Multidimensional Heterogeneity of Agents

Kevin Spiritus

KU Leuven, Belgium

I solve the problem of optimal mixed taxation with multidimensional types using a top-down Euler-Lagrangian approach. I state the Euler-Lagrange equation, a partial differential equation characterizing the optimum. I state two solutions. One leads to non-separable ABC-style optimal tax equations, taking into account the associated excess burden, advantages of redistribution expressed as line integrals, and the thickness of the distribution at higher levels of the tax base. The second solution expresses the advantage of distribution as a local spatial cross-covariance between the social welfare weights and the tax base. I use these findings to maximize a social welfare function with perfect screening, stating that the magnitude of the marginal tax rate is proportional to the information about the types it elicits. I apply these results to solve the optimal mixed tax problem of capital income and labour income with heterogeneous skills and heterogeneous discount rates.

9:00am - 10:30am

KFC, Room 112

E11: Behavioral responses to taxation

Session Chair: **Evelina Gavrilova**, NHH Norwegian School of Economics

9:00am - 9:30am

Inverse December Fever

Thomas Schwab[1], **Johannes Voget**[1], **Zareh Asatryan**[2], **Andreas Peichl**[1]

[1]University of Mannehim and ZEW, Germany; [2]ZEW, Germany

We study behavioral responses of sole-proprietorships whose firm-owners report income close to a kink point in the progressive income tax schedule. We link income tax-returns with in-year business data and find that those fi rms are reducing business activity in December by 8-13 per cent. This reduction is quantitatively similar for both revenues and expenditures and is not followed by an increase in January. Therefore, we conclude that affected fi rms conduct a real response by temporarily suspending business activity. We explain the timing of the adjustment in December by the existence of uncertainty about the realization of annual pro fit.

9:30am - 10:00am

Taxpayer Responsiveness and Statutory Incidence: Evidence from Irish Social Security Notches

Enda Patrick Hargaden[1], **Barra Roantree**[2]

[1]University of Tennessee, Knoxville, United States of America; [2]Institute for Fiscal Studies, London, United Kingdom

This paper uses a unique feature of the Irish social security system to investigate if statutory incidence affects tax avoidance. Like many countries, Ireland's tax system has notches, i.e. thresholds that trigger discontinuous tax liabilities. The unique feature is that incidence of two of these notches is defined by statute, applying variously to the employee or the employer. Bunching below these notch thresholds provides credible identification of taxpayer responses. We investigate the determinants of avoidance/bunching behaviour using administrative tax return data. We find that behaviour is identical over time *within* the employer- or employee-notches, but behaviour *between* the two notches is statistically different. This is inconsistent with the standard theory that statutory incidence has no effect on behaviour.

10:00am - 10:30am

How to Use One Instrument to Identify Two Elasticities

Evelina Gavrilova, **Floris Zoutman**, **Arnt Ove Hopland**

NHH Norwegian School of Economics, Norway

We show that exogenous variation in the tax rate can be used to simultaneously quantify supply and demand responses. Our result relies on two restrictions that play a central role in economic models of taxation since Ramsey (1927). First, we make the standard exclusion restriction stating that a tax that is levied on the demand side only affects supply through its impact on the price excluding the tax. We coin the second restriction as the Ramsey Exclusion Restriction (RER). It states that the same tax only appears in the demand equation through its impact on the price after taxation. The two restrictions imply that one can estimate demand and supply elasticities with only one instrument. Our result extends to a supply-demand system with J goods and J independent tax rates. We use exogeneous variation in the payroll tax to estimate supply and demand elasticities in the Norwegian labor market.

9:00am - 10:30am
KFC, Room 113

E12: Labor markets in health

Session Chair: **Michihito Ando**, Rikkyo University

9:00am - 9:30am

The Distribution of Physician Quality: Evidence from the English National Health Service

George Patrick Stoye
Institute for Fiscal Studies, United Kingdom

This paper provides empirical evidence on the distribution of physician quality in public hospitals in England. It then tests for assortative matching between physicians and hospitals. I address concerns about sorting of patients to physicians by studying patients receiving emergency treatment in public hospitals following a heart attack. The results indicate that there is considerable variation in the specific effect of an individual physician on the probability of patient survival, even after controlling for observable differences in patient severity and overall hospital quality. The most conservative results indicate that replacing a cardiologist with another who is one standard deviation of quality higher reduces the chance of patient mortality by 6 percentage points, or 75% of the mortality rate. The evidence suggests that 'better' physicians match with 'worse' hospitals. I examine two hypotheses that could explain these findings: permanent differences in patient complexity across hospitals and specific hospital-physician match effects.

9:30am - 10:00am

How Do Providers Respond to Health Insurance Expansion? Evidence from Pediatric Clinics in Japan

Reo Takaku
Institute for Health Economics and Policy, Japan

This paper examines how the health insurance expansion changes the behavior of primary care physicians. In Japan, the local subsidization programs which significantly reduce out-of-pocket expense for children's health care utilization have spread rapidly since 2000. By using the census of clinics which is matched with municipality-level eligibility criteria of MSCI, I implement difference-in-differences-in-difference analysis. The results show that MSCI increases monthly number of patients per clinic with the similar impacts indicated by the RAND Health Insurance Experiment. In addition, clinics choose to be located in densely populated area under generous MSCI system.Finally, while the physicians treat more patients per month, they generally reduce consultation days under generous MSCI system. Countries which extend health insurance coverage and it's generosity should take great care on these unintended responses by physicians.

10:00am - 10:30am

Testing for Monopsony in the Labor Market of Nurses: Evidence from a Fee Schedule Revision

Reo Takaku[1], Michihito Ando[2]
[1]Institute for Health Economics and Policy, Japan; [2]Rikkyo University, Japan

This paper tests the prediction from labor market monopsony that firms cannot increase employment without increasing wage in the context of nurse labor market. In 2006, the daily reimbursement for inpatient care in Japan was raised by 23 percent for hospitals with patient-nurse ratio lower than 7:1 (hereafter “7:1 hospitals”), when compared with the other hospitals. In order to receive huge financial gains from being 7:1 hospitals, many hospitals increased the number of nurses. We, however, find no changes in the average wage of nurses in 7:1 hospitals, using the census of government-owned hospitals from 1999 to 2014. After all, government-owned hospitals were able to increase nurse employment without increasing wages, implying that the simple classical model of labor market monopsony is not supported in this labor market.

9:00am - 10:30am
KFC, Room 115

E13: Voting on policies

Session Chair: **Refik Emre Aytimur**, University of Manchester

9:00am - 9:30am

Voting On Retirement Age: The Role Of Aging And Intergenerational Redistribution

Benjamin Bittschi, Berthold Wigger
KIT Karslruhe, Germany

We study the effect of aging and intergenerational redistribution on the legal retirement age. First, a theoretical model with the legal retirement age as the outcome of majority voting demonstrates that a rising individual lifetime leads to a higher legal retirement age, whereas increasing intergenerational redistribution decreases the legal retirement age. We corroborate the theoretical results empirically, on both individual and cross country level. Our research reveals that political support for an increase in the legal retirement age, one of the most prominent pension reform options, is feasible in an aging society, but it is compromised when pension generosity increases simultaneously.

9:30am - 10:00am

Upward Mobility and Legislator Support for Education Reforms

Luna Bellani, Vigile Fabella
University of Konstanz, Germany

This paper investigates how upward mobility affects legislator voting behavior towards education reforms. We develop an electoral competition model where voters are parents who value the future economic status of their children, while childrens' economic status is affected by public education and upward mobility. The model predicts a decrease in legislator support for redistributive education policy with a rise in upward mobility. We test this hypothesis using a newly compiled dataset of roll call voting on California education legislation matched with electoral district-level upward mobility. Our findings suggest that the

likelihood of a legislator voting no on redistibutive education bills increases by 10% when upward mobility in his electoral district increases by a standard deviation.

10:00am - 10:30am

Accountability With Large Electorates

Refik Emre Aytimur[1], **Christian Bruns**[2]

[1]University of Manchester, United Kingdom; [2]University of Goettingen, Germany

We show that a large electorate of ignorant voters can succeed in establishing high levels of electoral accountability. In our model, an incumbent politician is confronted with a large number of voters who receive fuzzy private signals about her performance. The accountability problem can be solved well in the sense that the incumbent exerts effort as if she faced a social planner who perfectly observes her performance. Introducing public information has an ambiguous effect: effort decreases when the electorate is ideologically balanced and effort increases when there is a strong ideological (dis)advantage for the incumbent.

9:00am - 10:30am **IIPF Board of Management Meeting II (for Board only)**

KFC, Room 102

10:30am - 11:00am **Coffee Break**

11:00am - 12:30pm **F01: Financing Health**

KFC, KFC Hall 2nd

Session Chair: **Ariel Dora Stern**, Harvard Business School

11:00am - 11:30am

What Do Private Firms Bring to the (Bargaining) Table? Vertical Structure and Negotiated Prices of Generic Pharmaceuticals

Ashley Swanson[1], **Amanda Starc**[2]

[1]University of Pennsylvania, United States of America, NBER; [2]Northwestern University, United States of America, NBER

In this project, we study imperfect competition and price negotiation in drug markets. We consider price levels and pass-through in this complex vertical supply chain with demand and supply intermediaries. A model of bargaining between a plan and pharmacies motivates three tests for market power among pharmacies and pharmaceutical manufacturers. We first test for price discimination by manufacturers and pharmacies. We find that plans enrolling price-insensitive patients pay higher retail prices for both branded and, critically, generic drugs. We also show that plans that engage to a greater extent in selective contracting pay lower retail prices for both branded and generic drugs. Finally, we demonstrate that pass-through of wholesale prices into point-of-sale retail prices is well below one-for-one; our results are inconsistent with a model in which pharmacies are price-takers.

11:30am - 12:00pm

Advertising in Health Insurance Markets

Bradley T Shapiro

University of Chicago, United States of America

The effects of television advertising in market for health insurance are of distinct interest to both firms and regulators, due to both the sheer size of the market and some of its more particular characteristics when it comes to consumer choice. Regulators are concerned about firms potentially using ads to "cream skim," or attract an advantageous risk pool, as well as the potential for firms to use misinformation to take advantage of the elderly. On the other hand, ads could provide useful information or remind people to reconsider their options, making regulation potentially welfare-reducing. Using the discontinuity in advertising exposure created by the borders of television markets, this study estimates television advertising to provide small incremental lift, making it an expensive way for firms to acquire customers. Furthermore, advertising works disproportionately well on unhealthy counties, potentially easing regulator concerns.

12:00pm - 12:30pm

When does public research funding address private market failures? Examining the role of the NIH in financing biopharmaceutical innovation

Amitabh Chandra[1], **Craig Garthwaite**[2], **Ariel Dora Stern**[3]

[1]Harvard Kennedy School, United States of America; [2]Kellogg School of Management, United States of America; [3]Harvard Business School, United States of America

This project investigates whether funding for pharmaceutical research from the U.S. National Institutes of Health (NIH) is allocated to address shortfalls in the socially optimal amount of research conducted by private firms. Arguments in favor of publicly funding research are typically based on the belief that public agencies have a mandate to provide resources where market failures have resulted in a less than socially optimal provision of private funding. Despite this, there is a relative lack of empirical evidence investigating the extent to which this is how NIH funding is allocated in practice. Our project investigates the amount and share of NIH funding available by drug class and stage of research. If funding is allocated to address shortfalls in private funding, smaller markets should have a greater share of their products developed with support of NIH funding. Similarly, public funding should be disproportionately likely to support early-stage trials.

11:00am - 12:30pm **F02: Institutions and Economic Development in China**

KFC, KFC Hall

Session Chair: **Chenggang Xu**, CKGSB

11:00am - 11:30am

State Capacity and Economic Development under Capital Mobility: Evidence from China

Yu Liu[1], **Xiaoxue Zhao**[2]
[1]Fudan University, China; [2]Yale University, United States of America

This paper examines the effect of fiscal capacity on local states' market-supporting infrastructure investment and overall economic development. Exploiting the heterogeneous shock that the reform exerts on the fiscal capacity of Chinese counties with different geographic features, we show that the causal effect of a county's fiscal capacity on its market-supporting investment and output respectively is, although positive for counties with the lowest capital mobility, significantly more negative in counties where firms face lower relocation costs. Our results imply that tax evasion was a real consideration for Chinese firms in determining where to locate and how much capital to invest in each county. Capital mobility, which tends to erode the complementarity between counties' fiscal capacity and market-supporting infrastructure investment, has an equalizing effect on economic outputs across counties with different fiscal capacity.

11:30am - 12:00pm

Clustering, Growth, and Inequality in China

Di Guo[1], **Kun Jiang**[2], **Chenggang Xu**[3], **Xiyi Yang**[4]
[1]The University of Hong Kong, China; [2]The University of Roehampton, UK; [3]CKGSB, Hong Kong S.A.R. (China); [4]Shanghai Tech University, China

This study examines the effects of China's industrial clusters on local economic growth and urban–rural inequality. Based on firm- and county-level panel data from 1998 to 2007, we find that clustering enhances local economic growth. Counties with stronger clusters and clusters consisting of a more developed non-state sector experience higher economic growth than others. Moreover, urban–rural income inequality is substantially lower in counties with clusters consisting of a larger non-state sector, because of the increased income of rural residents. Results remain robust after addressing endogeneity issues using two-stage estimations employing instrumental variables.

12:00pm - 12:30pm

Land Tenure Legacy, Property Institutions and Economic Development: Evidence from China

Terence Tai Leung Chong[1], **Di Guo**[2], **Danli Wang**[3]
[1]The Chinese University of Hong Kong, Hong Kong S.A.R. (China); [2]The University of Hong Kong, Hong Kong S.A.R. (China); [3]Shanghai University of International Business and Economics, China

We examine the effects of property rights institutions on economic development based on cross-prefecture data in China by employing land tenure structure in history as an instrument to identify the causal relationship. We find in prefectures with more landlords in history, local societies had stronger incentives and capacity to protect their own properties against state exploitation than those in prefectures dominated by owner-cultivators. Such patterns of the constraints on executives persist over time with repeated "games" that shape the divergence in terms of the contemporary property rights institutions and economic development across regions.

11:00am - 12:30pm
KFC, Room 101

F03: Inheritance and family

Session Chair: **Emilson Silva**, University of Alberta

11:00am - 11:30am

Inheritance Taxation and Wealth Effects on the Labor Supply of Heirs

Fabian Kindermann[2], **Lukas Mayr**[1], **Dominik Sachs**[1]
[1]European University Institute, Italy; [2]University of Bonn, Germany

Taxing bequests not only generates direct tax revenue, but can have a positive impact on the labor supply of heirs through wealth effects. This leads to an in- crease in future labor income tax revenue. How large is this effect? We use a lifecycle model that we calibrate to the German economy. Our model successfully matches quasi-experimental evidence regarding the size of wealth effects on labor supply. Using this evidence directly for a back of the envelope calculation fails because (i) heirs anticipate the reduction in bequests through taxation and adjust their labor supply already prior to the act of bequeathing, (ii) when bequest receipt is stochastic, even those who ex post end up not inheriting anything respond ex ante. We find that for each Euro of bequest tax revenue the government generates, it obtains additional 9 Cents of labor income tax revenue (NPV) through higher labor supply of heirs.

11:30am - 12:00pm

The role of the immediate and extended family in the formation of wealth: Evidence from Sweden

Kristin Gunnarsson[1], **Adrian Adermon**[1,2,3]
[1]Uppsala University, Sweden; [2]IFAU; [3]Uppsala Center for Labor Studies

We estimate sibling and cousin correlations in wealth using Swedish administrative data from 1999–2007. This allows us to shed light on the extent to which the immediate family as well as the extended family contribute to the total variation in wealth among individuals.

12:00pm - 12:30pm

Optimal Timing in Rotten Kid Families

Emilson Silva[1], **Joao Faria**[2]
[1]University of Alberta, Canada; [2]University of Texas at El Paso

In a family context with endogenous timing, multiple public goods and alternative parental instruments, we show that the optimal timing for the sequential-action game played by rotten kids and a parent depends crucially on whether the kids are homogeneous or heterogeneous. For homogeneous kids, the rotten kid

theorem holds irrespective of the parental policy instrument, implying that it is optimal to let the kids to be action leaders. If the kids are heterogeneous, however, parental leadership yields a first best outcome and, hence, it is optimal whenever the kids are economically dependent and agree on the tradeoff between public goods.

11:00am - 12:30pm
KFC, Room 103

F04: Consumption

Session Chair: **Rene Leal Vizcaino**, Northwestern University

11:00am - 11:30am

Are Labour and Capital Beneficiaries of the VAT Rate Reduction? Evidence Based on Hairdressing Services in Poland

Arkadiusz Bernal
Poznan University of Economics and Business, Poland

On the 1st of October 2006 in Poland, the value added tax rate on hairdressing services was reduced from 22% to 7%. This natural experiment allows to answer the question, who was the beneficiary of the tax rate reduction: consumers, labour or capital. The conclusion from the empirical research is that the reduction of the tax rate for hairdressing services generally did not result in price reductions for consumers. Benefits of the lower tax rate for hairdressing services are shared about equally between capital and labour. For labour and capital, the benefits of the reduced tax rate were not stable over time. In the first year after the tax rate change, capital was the sole beneficiary. Wages increased in the second and the third year after the reform.

11:30am - 12:00pm

GST Reform in Australia: Implications of Estimating Price Elasticities of Demand for Food

Syed Hasan, Mathias Sinning
Australian National University, Australia

This paper uses data from the Australian Nielsen Homescan Survey to estimate price elasticities of demand for food. An instrumental variable strategy is employed to address endogeneity issues. The estimates obtained from our analysis are used to study five scenarios in which the rate of the GST on some or all food categories is increased and/or in which the tax base is broadened to include currently GST-free categories. Our findings reveal that there is considerable scope for a rate increase and a broadening of the tax base, even if low-income households (the bottom 40% of the income distribution) would be compensated for the loss in consumption induced by a tax increase. We demonstrate that increasing the rate of the GST from 10% to 15% and broadening the tax base would increase tax revenues by up to $8.5 billion, whereas compensating low-income households would require up to $2.2 billion.

12:00pm - 12:30pm

Quantifying the Welfare Gains of Variety: A Sufficient Statistics Approach

Kory Kroft[1], Matthew Notowidigdo[2], Jean-William Laliberte[1], Rene Leal Vizcaino[2]
[1]University of Toronto, Canada; [2]Northwestern University, USA

This paper derives a new sufficient statistics formula for the change in consumer surplus as a result of a change in varieties. We consider optimal product variety and the welfare effects of taxation with endogenous variety. Key inputs are short-run and long-run reduced-form estimates of taxes on prices and quantities, along with estimates of taxes on varieties. We implement our approach by combining rich retail scanner data from grocery stores in the U.S. with detailed local sales tax data. Using within-and between-state variation in sales tax rates and tax exemptions, we find that at current sales tax rates and entry costs, product variety is greater than socially optimal. Next, we estimate a large effect of sales taxes on product variety, and we find that the marginal excess burden of sales taxes is roughly 2-3 times larger than estimates ignoring the indirect effect of taxes on product variety.

11:00am - 12:30pm
KFC, Room 107

F05: Management behavior

Session Chair: **Thomas Daske**, Technical University of Munich

11:00am - 11:30am

Overconfidence, Bailouts and Bonus Taxes

Daniel Gietl
LMU Munich, Germany

Extensive empirical evidence shows that government guarantees and managerial overconfidence contribute substantially to excessive risk-taking in the banking industry. However, the interaction of these two characteristics is not well-understood. This paper incorporates managerial overconfidence and limited bank liability into a principal-agent model, where the bank manager unobservably chooses effort and risk-taking. An overconfident banker overestimates the return to effort and the success probability of risky investments. The bank exploits the overconfident manager by offering a higher bonus and a lower fixed wage. The banker's overconfidence as well as the more convex contract lead to excessive risk-taking and thus an increase in bailout costs for taxpayers. In equilibrium, a tax on bonuses can mitigate these negative effects and redistribute from the financial sector to taxpayers. A bonus tax is especially desirable for banks with large government guarantees as they will offer steep incentive schemes and benefit most from employing overconfident managers.

11:30am - 12:00pm

The Impact of the Limited Government Policy on the Management of the Japanese Prefectural Museums

Miyuki Taniguchi
Keio University, Japan

The aim of this paper is to determine how the small government policy has changed the management of Japanese prefectural museums since 2006. In order to reconstruct the budget positions of local governments, the Koizumi government advocated a policy of “small” government and cuts in the costs of public cultural facilities. One example was the introduction of the Designated Manager System (DMS) into public facilities in 2006, which was an example of the New Public Management and enabled private managers to manage public facilities. The main contribution of this paper is to examine the impact of the introduction of New Public Management into public museums, using stochastic frontier analysis. The estimation results show that designated managers could reduce inefficiencies when they engage in planning the exhibitions in the prefectural museums. Especially, designated managers who were selected through a competitive process show a more efficient performance.

12:00pm - 12:30pm

Externality Assessments and Mechanism Design

Thomas Daske
Technical University of Munich, Germany

How agents assess the (in-)tangible externalities that others might impose on them can strongly influence strategic interaction. This study explores mechanism design for agents whose externality assessments and private payoffs, exclusive of externalities, are all subject to asymmetric information; utility is transferable. Under reasonable assumptions, the following result is established: A Paretian social choice rule, specifying a Paretian allocation rule and a budget-balanced transfer scheme, is Bayesian incentive compatible if and only if it maximizes the sum of private payoffs exclusive of externalities. The corresponding mechanism is necessarily externality-robust in that it leaves externality assessments strategically inoperative; it takes the form of the standard AGV-mechanism.

The result emphasizes the critical role of the value judgment inherent to social choice. Bayesian implementation of a value judgment inconsistent with externality-ignoring utilitarianism violates budget balance and thus entails incentive costs.

11:00am - 12:30pm
KFC, Room 106

F06: Migration

Session Chair: **Federico Revelli**, University of Torino

11:00am - 11:30am

Family Return Migration

Till Nikolka
Ifo Institute, Germany

This paper investigates the role of family ties in temporary international migration decisions. Analysis of family return migration from Denmark suggests that schooling considerations are associated with return propensities of immigrant couples with children. Results also show that factors related to children and cultural identity are likely to play a role for return decisions among immigrant families from non-Western countries. Moreover, the paper studies self-selection into return migration regarding the income of the primary earner. Returning couples are positively selected on primary earner income. This selection pattern is weaker among dual earner couples and couples with children.

11:30am - 12:00pm

Spillover Effects of Stricter Immigration Policies

Cristina Bratu, Matz Dahlberg, Mattias Engdahl
Uppsala University, Sweden

We estimate the effect of a 2002 policy reform in Denmark, in which Denmark took significant steps towards tightening its rules on family reunification, on reunification-related migration to Sweden, a neighboring country with less strict rules. We reach three main conclusions. First, we find a clear and significant effect of the reform in Denmark on reunification-related migration to Sweden. Second, in terms of onward migration, our results show that a significant fraction of those affected by the Danish reform seem to have considered the move to Sweden as temporary, with the absolute majority returning to Denmark. Third, in terms of labor market participation and integration into Swedish society, we find that those that considered the move to Sweden as being more permanent assimilate faster economically and naturalize to a higher extent than those that considered the move to be more temporary.

12:00pm - 12:30pm

The Electoral Migration Cycle

Federico Revelli
University of Torino, Italy

This paper puts forward a new test of Tiebout sorting that relies on the exogenous time structure of recurrent local elections. The test is based on the idea that the policy uncertainty that is associated with periodic competitive elections should be expected to induce procrastination of migration until uncertainty is resolved, thus projecting the calendar of local elections into the timing of sorting processes. Conversely, interjurisdictional migration flows that are driven by other motives than local provision of public goods ought to be orthogonal to the timing of municipal elections. Empirically, I study sorting patterns across several thousands of peninsular Italy's municipalities through more than a decade. I find evidence of an electoral migration cycle, in the sense that the timing of internal migration is systematically influenced by the staggered schedule of mayoral elections.

11:00am - 12:30pm
KFC, Room 108

F08: Investment

Session Chair: **Andreas Dibiasi**, ETH Zürich

11:00am - 11:30am

Do Investors Value Investment Incentives? Evidence from Bonus Depreciation and the Fiscal Cliff

Eric Ohrn
Grinnell College, United States of America

As 2012 drew to a close, the U.S. economy was speeding towards the "fiscal cliff," a series of previously enacted laws that would come into effect on January 1 2013, simultaneously increasing taxes while decreasing spending. At the last possible moment, the U.S. Congress averted the crisis by passing the American Taxpayer Relief Act of 2012. In a surprise move, the act extended bonus depreciation, an investment tax incentive that decreases the present value cost of new capital investments. Using a differential effects event study methodology that relies on this surprise extension and industry variation in the generosity of policy, I estimate how much investors value bonus depreciation and tax investment incentives, more generally. Empirical results demonstrate stock prices increase by 0.5% for firms that benefit most from the the policy. Results also suggest investors value the cash flow effects of the policy rather than the investment it stimulates.

11:30am - 12:00pm

The Impact of Subsidy Bidding Wars on the Optimal Investment Decisions of Multi-Establishment Firms

Simon Lapointe[1], Pierre-Henri Morand[2,3]
[1]VATT Institute for Economic Research, Finland; [2]University of Avignon, France; [3]GREQAM, Aix-Marseille School of Economics

This paper studies the competition between regions to attract investment from a firm. An important takeaway from earlier papers is that such bidding wars can improve welfare by allocating new plants to the regions that value them the most. By endogenously modelling the firm's investment choice across multiple establishments, we show that the firm strategically chooses an investment different from the profit-maximising allocation. Specifically, the firm invests more and differentiates the plants, in turn increasing subsidies. Despite these distortions, we show that such a bidding war retains the welfare-maximising properties of models with exogenous capital investment. Moreover, our conclusions do not depend on the type of auction used to represent the bidding war, as the auction in the model implements the optimal mechanism from the viewpoint of the firm. Finally, we also show that a benevolent social planner would also optimally implement a similar bidding war.

12:00pm - 12:30pm

The Effect of Policy Uncertainty on Investment Plans: Evidence from the Unexpected Acceptance of a Far-Reaching Referendum in Switzerland

Klaus Abberger, Andreas Dibiasi, Michael Siegenthaler, Jan-Egbert Sturm
KOF, ETH Zurich, Switzerland

Does increased policy uncertainty dampen investment plans of firms? We provide evidence on this question by examining the effects of an unexpectedly accepted and far-reaching referendum in Switzerland in February 2014. The vote has put several economically relevant agreements between Switzerland and the European Union at stake. Using firm-level survey data levied before and after the vote, we examine whether firms that reported to be affected by the induced policy uncertainty have revised their investment plans differently from those that did not perceive an increase in uncertainty. We find strong evidence that an increase in policy uncertainty does lead firms to reduce their investment plans. As theoretically expected, these effects are concentrated among those firms that view their investments as largely irreversible. Moreover, the uncertainty shock mainly dampened firms' plans to extend their production capacities, while other types of investment such as replacement investment were not affected.

11:00am - 12:30pm
KFC, Room 109

F09: Immigration

Session Chair: **Gideon Goerdt**, Universität Freiburg

11:00am - 11:30am

Preferences for Redistribution among Emigrants from a Welfare State

Ilpo Kauppinen[1], Panu Poutvaara[2]
[1]VATT Institute for Economic Research, Finland; [2]Ifo Institute for Economic Research, Germany

This paper studies attitudes towards income redistribution in the country of origin and country of residence among those who stay in a European welfare state, and those who emigrate. We find a striking gender difference among Danish emigrants. Majority of men opposes increasing income redistribution, majority of women supports it. Women are more positive towards redistribution also in Denmark, but the gender difference is much smaller. We study whether the differences are driven by assimilation to the new home country, and self-selection of emigrants to different destinations. We find that men who have migrated to destinations outside Nordic countries and men who have migrated for work related reasons are more negative towards redistribution in Denmark, and that female migrants who have a sibling receiving income transfers in Denmark are more positive.

11:30am - 12:00pm

Immigrant Fi rms and Neighboring Networks

Henrik Andersson
Uppsala University, Sweden

In this paper I use high quality individual level Swedish register data to identify the causal effect of ethnic enclaves on the propensity of self-employment. I follow two cohorts of arriving immigrants in 1990 and 1991, and study outcomes for different country groups within municipalities several years after arrival. To account for neighborhood selection I make use of a refugee dispersal program in place at the time. The size of the ethnic enclave is either given by the number of coethnics, or self-employed coethnics living in the municipality of arrival. Preliminary results indicate that the number or share of self-employed coethnics has a clear and robust effect, while the general municipality share of coethnics is not robust to the inclusion of country fixed effects. This points to the importance of quality networks rather than exploiting niche markets.

12:00pm - 12:30pm

Migrant Distribution in the European Union - A New Scope of Application for Auction Mechanism Design

Gideon Goerdt, Wolfgang Eggert, Maximilian Stephan
Universität Freiburg, Germany

This paper will analyze migrant distribution in the European Union and therefore add a new scope of application to auction mechanisms. If bidders have to pay a share of the costs, auction mechanisms can solve distributional problems between individuals, groups, or countries preferable. In this case, the incentives for bid shading are more ambiguous than in standard multi-unit auctions. Therefore, we derive a gambling condition for bid shading in the Uniform Price Auction and the Vickrey Auction. Based on these results we introduce a strategy-proof distribution mechanism. Additionally, we analyse the main characteristics for a country's value function and the respective bid vector. Finally, we show how the European Union could implement such a preference based migrant distribution mechanism.

11:00am - 12:30pm
KFC, Room 100

F10: Intergenerational transmission

Session Chair: **Jörg Paetzold**, University of Salzburg

11:00am - 11:30am

Local Government Education Spending and Intergenerational Mobility

Sturla A. Løkken[1,2], Audun Langørgen[1]
[1]Statistics Norway; [2]Norwegian University of Science and Technology

This paper investigates the effects of education spending per student on several adult outcomes. Exhaustive administrative registries for children from the birth cohorts 1970-1980 allow us to track the adult income, education and childhood location and school spending on individual students. We use a combination of childhood exposure effects, family fixed effects, cohort population controls and family moving patterns to isolate the quasi-experimental variations in the education spending. For boys, we find that increases in education spending have substantial positive effects on earnings and the chances of family formation in early adulthood. For girls, there are positive effects on the rate of high school completion and the rate of on-time attainment of college diplomas. Our results are mostly robust to alternative identifying assumptions and model specifications.

11:30am - 12:00pm

Intergenerational Mobility And Equal Opportunity, Evidence From Finland

Ilpo Veikko Juhani Suoniemi
Labour Institute for Economic Research, Finland

Register based Finnish panel data are used to study intergenerational mobility. The conditional expectation of child income rank given parent income is linear in percentile ranks over most of the income range. On average, a 10 percentile increase in parent income rank is associated with a 2.2 percentile increase in a child's income rank, somewhat higher than in the Scandinavian countries. At the top of parent income distribution, we observe substantially more immobility and enhanced educational outcomes.

Second, there is some variation in intergenerational mobility across NUTS level 3 regions within Finland. Third, we explore the factors correlated with upward mobility. The results suggest that regions with high relative (absolute) intergenerational mobility have less income inequality in gross or disposable (factor) income. However, the regional correlations are estimated imprecisely and are affected by influential observations.

12:00pm - 12:30pm

The Intergenerational Causal Effect of Tax Evasion: Evidence from the Commuter Tax Allowance in Austria

Jörg Paetzold[1], Wolfgang Frimmel[2], Martin Halla[3]
[1]University of Salzburg, Austria; [2]University of Linz; [3]University of Innsbruck

Does tax evasion run in the family? To answer this question, we study the case of the commuter tax allowance in Austria. This allowance is designed as a step function of the distance between the residence and the workplace, creating sharp discontinuities at each bracket threshold. The distance to these brackets is a strong determinant of compliance since it corresponds to the probability of detection. The match of different administrative data sources allows us to observe actual compliance behavior at the individual level across two generations. To identify the intergenerational causal effect in tax evasion behavior, we use the paternal distance-to-bracket as an instrumental variable for paternal compliance. We find that paternal non-compliance increases children's non-compliance by about 20 percent.

11:00am - 12:30pm
KFC, Room 111

F11: "Optimal" policy for irrational agents

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

11:00am - 11:30am

Discrete earnings and optimization errors: Evidence from student's responses to local tax incentives

Tuomas Kosonen[2], Tuomas Matikka[1]
[1]VATT Institute for Economic Research, Finland; [2]Labour Institute for Economic Research, Finland

We study how different optimization frictions prevent taxpayers from responding to tax incentives. We utilize an income notch created by the study subsidy system for university students in Finland, and analyze a reform that shifted out the location of the notch. In addition to distinctive local bunching responses, we find that the whole earnings distribution shifts out with the notch. This implies that labor market frictions stemming from discrete earnings possibilities prevent a smooth response to tax

incentives. This indicates larger welfare effects than observed bunching estimates suggest. Moreover, by utilizing data on secondary school math grades, we find evidence that optimization errors attenuate local responses.

11:30am - 12:00pm

Optimal Taxes With Tempted Consumers And Oligopolistic Firms

Rachel Griffith, Martin O'Connell, Kate Smith
IFS, United Kingdom

Taxes can be Pareto improving when people consume more of a good than they themselves would like; for example, if they suffer from temptation. We investigate this empirically in the non-alcoholic beverage market: consumers may be tempted by more sugary products. We use novel data on purchases made for immediate and future consumption to identify the extent of consumers' temptation. We combine this with a model of optimal sin taxes to recover Pareto-improving tax rates. In our optimal tax framework, we explicitly model the supply side of the market as a Nash-Bertrand game between firms, which accounts for firms' pricing response to the tax imposed.

12:00pm - 12:30pm

Optimal Paternalism? A New View of the Taxation of Unhealthy Food

Zarko Kalamov, Marco Runkel
University of Technolgy Berlin, Germany

This paper analyzes optimal consumption choices and weight when consumers make errors due to self-control problems and naiveté. Contrary to the existing literature, we show that both types of errors do not determine whether an individual is overweight or underweight. Instead, they affect only the extent of over- or underweight and do not impact a healthy weight consumer. Consequently, a paternalistic tax on unhealthy food that is designed to correct self-control problems and naiveté cannot induce individuals to have a healthy weight. Moreover, there exists a tax that induces both rational and non-rational individuals to have a healthy weight in steady state. This tax does not depend on the degree of self-control problems or naiveté.

11:00am - 12:30pm
KFC, Room 112

F12: Local policies

Session Chair: **Polly Simpson**, Institute for Fiscal Studies

11:00am - 11:30am

When Does Money Stick in Education? Evidence From a Kinked Grant Rule

Antti Saastamoinen[1], Mika Kortelainen[1,2], Jaakko Meriläinen[3]
[1]VATT Institute for Economic Research, Helsinki, Finland; [2]University of Manchester, Manchester, UK; [3]Institute for International Economic Studies (IIES), Stockholm University, Sweden

The well-known empirical regularity in public finance literature, the flypaper effect, is studied within the Finnish system of high school education funding. The system allocates lump-sum intergovernmental grants to local education organizers using a kinked grant rule. Utilizing the exogenous variation in grants given by the rule we identify the effects of grants on municipal high school education expenditures. Our results indicate that grants stimulate spending while local tax rates or revenues are not responsive to grants. We also consider the possibility that grant responses might be heterogeneous among municipalities. Heterogeneity results suggest that grant response is positively related to the share of high school age population, while municipalities with high share of elderly are less responsive. Additionally we observe heterogeneity with respect to other municipal characteristics such as the size of local council, voter turnout, and tax rate levels.

11:30am - 12:00pm

Fiscal Fragmentation and the Spatial Distribution of Crime Rates in the United States

Jinghua Lei, Jenny Ligthart, Mark Rider, Ruixin Wang
Renmin University of China, China, People's Republic of

One of the most striking features of crime statistics in the United States is the disparities in crime rates among neighboring jurisdictions. We examine the role of fiscal fragmentation in generating such patterns in the data. We show that fiscal fragmentation creates three causal channels which shape the spatial pattern of crime: competitive effect, interjurisdictional-spillover effect, and the Tiebout-sorting effect. Using U.S. county-level panel data for the census years 1990, 2000, and 2010, we estimate the impact of fiscal fragmentation on the spatial distribution of crime rates. To do so, we derive a Maximum Likelihood Estimator, which allows us to estimate a Durbin Spatial Autoregressive model with a multiplicative spatial interaction term. This estimator allows us to identify the hypothesized mechanisms that shape the spatial pattern of crime. We find strong empirical support for the hypothesis that fiscal fragmentation influences the spatial pattern of crime in the United States.

12:00pm - 12:30pm

The Determinants of Local Police Spending

Rowena Crawford[1], Richard Disney[1,2,3], Polly Simpson[1]
[1]Institute for Fiscal Studies, United Kingdom; [2]University of Sussex, United Kingdom; [3]University College London, United Kingdom

Since 1995, police forces in England and Wales have obtained the right to raise revenues locally to supplement central government grants in order to fund their activities. The extent to which they have used these local revenue-raising powers varies significantly across area and time. We seek to explain this variation in locally raised police revenues over the 2000s, unpicking the role of local differences in preferences, central government funding, the production of public safety given police inputs, and certain political economy features of the local decision making process. We find that around three-quarters of the variation in local revenues per capita can be explained by differences in incomes, prices and preferences.

We also show that changes in service provision by other agencies spillover into the local demand for policing by affecting the local tax price of police activities.

11:00am - 12:30pm
KFC, Room 113

F13: Populism and Extremism

Session Chair: **Jana Cahlikova**, Max Planck Institute for Tax Law and Public Finance

11:00am - 11:30am

Emergence of Populism under Ambiguity

Daiki Kishishita
The University of Tokyo, Japan

I construct a dynamic elections model with information asymmetries in which a representative voter who is ambiguity-averse chooses a policymaker among elites and non-elites in each period. Then, I investigate the effect of the uncertainty the voter faces about an elite's degree of bias on the emergence of populism. I show that an increase in *risk* and in *ambiguity* work in the opposite directions. An increase in risk makes populism less likely to arise so long as the reward and punishment mechanism to incentivize politicians is limited. By contrast, an increase in ambiguity makes populism more likely to arise. These results suggest that an increase in ambiguity rather than in risk is a crucial source of populism.

11:30am - 12:00pm

Minority Salience and Political Extremism

Tommaso Colussi, Ingo Isphording, Nico Pestel
Institute of Labor Economics (IZA), Germany

This paper studies electoral effects of exposure to religious minorities in the context of Muslim communities in Germany. Using unique data on mosques' construction and election results across municipalities over the period 1980-2013, we find that the presence of a mosque increases political extremism. To establish causality, we exploit arguably exogenous variation in the distance of the election date to the month of Ramadan, when Muslim communities become more visible to the general public. Our findings show that vote shares for both right- and left-wing extremist parties become larger when the election date is closer to Ramadan. We additionally show that the change in minority salience also increases the likelihood of politically motivated crimes against Muslims.

12:00pm - 12:30pm

Social Contagion of Ethnic Hostility

Michal Bauer[1,2], Jana Cahlikova[3,1], Julie Chytilova[2,1], Tomas Zelinsky[4,1]
[1]CERGE-EI; [2]Institute of Economic Studies, Faculty of Social Sciences, Charles University; [3]Max Planck Institute for Tax Law and Public Finance; [4]Technical University of Kosice

Ethnic hostilities often spread rapidly. This paper investigates the influence of peers on willingness to sacrifice one's own resources in order to cause harm to others. We implement a novel experimental design, in which we manipulate the identity of a victim as well as the social context, by allowing subjects to observe randomly assigned peers. The results show that the susceptibility to follow destructive peer behavior is great when harm is caused to Roma minority, but small when it impacts co-ethnics. If not exposed to destructive peers, subjects do not discriminate. We observe very similar patterns in a norms elicitation experiment: destructive behavior towards Roma is not generally rated as more socially appropriate, but norms are more sensitive to social contexts. The findings can help to explain why ethnic hostilities can spread quickly among masses, even in societies with few visible signs of systematic inter-ethnic hatred, and why many societies institute hate crime laws.

11:00am - 12:30pm
KFC, Room 115

F14: Deductions

Session Chair: **Sara LaLumia**, Williams College

11:00am - 11:30am

Using Tax Deductions to Promote Lifelong Learning: Real Versus Shifting Responses

Wiljan Van den Berge[1,2], Egbert Lothar Wolfgang Jongen[1,3], Karen Van der Wiel[1,4]
[1]CPB; [2]Erasmus University Rotterdam; [3]Leiden University; [4]IZA

Potential underinvestment in lifelong learning is a major policy concern. In this paper we study whether a tax deduction for lifelong learning stimulates lifelong learning. Specifically, we employ a regression discontinuity design, where the tax deduction in combination with jumps in tax bracket rates generates exogenous variation in the effective costs of lifelong learning. Furthermore, we use high quality administrative tax return data on the universe of Dutch taxpayers. We find that the tax deduction has a modest effect on lifelong learning: an effective reduction in the costs of lifelong learning of about 15% increases lifelong learning by about 5%. We further show that ignoring shifting of the tax deduction between partners in couples can lead to spurious large effects for primary earners and spurious negative effects for secondary earners.

11:30am - 12:00pm

High-Income Taxpayers’ Charitable Giving – Evidence from a Large Panel of Tax Returns

Shih-Ying Wu[1], Mei-Jane Teng[2]
[1]National Tsing Hua University, Taiwan; [2]National Chin-Yi University of Technology, Taiwan

High-income givers are of particular interest in charitable giving because their contributions account for a disproportionate fraction of total contributions and their charitable behaviors are complicated. We utilize a large panel of the top 1% income group, which comprises about 50,000 tax units, from Taiwan to analyze high-income taxpayers’ charitable behaviors. We find that the price elasticity estimates of giving for high-income taxpayers are larger than those based on the general population, implying that high-income taxpayers tend to take advantage of price variation over time for tax savings. Moreover, the finding that the price elasticities based on cross-sectional data are larger than those based on panel data also suggests that taxpayers are very heterogeneous even in the very top income group. We also find that high-income taxpayers' income elasticity of giving is smaller for transitory income sources than for persistent income sources.

12:00pm - 12:30pm

Strategic Timing of Charitable Giving

Sara LaLumia
Williams College, United States of America

Charitable contributions are tax deductible for filers who itemize but not for filers taking the standard deduction. This paper investigates whether households that are likely switching from taking the standard deduction to itemizing change the timing of gifts to charity, postponing gifts from December of the year in which they take the standard deduction to January of the year in which they itemize. I use the initiation of mortgage payments as a proxy for itemizing. I find that households in the control group concentrate their charitable giving in December, but households with first mortgage payments at the start of a new year do not concentrate their giving in the previous December. This pattern is distinctive to charitable giving. Non-deductible expenses of cash gifts to individuals and clothing purchases are concentrated in December to an equal extent for consistent itemizers and those who are likely switching into itemizing.

12:30pm - 1:30pm **Lunch**

1:30pm - 3:30pm
KFC, KFC Hall 2nd

G01: Elasticity of taxable income

Session Chair: **Frank Fossen**, University of Nevada, Reno

1:30pm - 2:00pm

Estimating the Elasticity of Taxable Income: Evidence from Top Japanese Taxpayers

Takeshi Miyazaki[1], Ryo Ishida[2]
[1]Kyushu University, Japan; [2]Policy Research Institute, Ministry of Finance Japan

This study measures the elasticity of taxable income (ETI) using data on top Japanese taxpayers between 1986 and 1989. During these years, Japan decreased the income tax rates of the top-to-bottom income earners and number of income brackets drastically. We construct a panel dataset of top taxpayers in Japan in this period, using Japanese tax return data and estimate the ETI. We find that the ETI with regard to the net-of-tax rate is approximately 0.074–0.055, considerably lower than those for the United States and most European countries but nearly equal to that for Denmark.

2:00pm - 2:30pm

Problemtic Response Margins in the Estimation of the Elasticity of Taxable Income

Kristoffer Berg[1], Thor O. Thoresen[1,2]
[1]Oslo Fiscal Studies, Department of Economics, University of Oslo; [2]Statistics Norway, Norway

The elasticity of taxable income (ETI) is known to represent a summary measure of tax efficiency costs, which means that further information about the behavioral components of the ETI is not required for its use in tax policy design. However, as there are response margins that may cause biases in the estimation of the elasticity, we advise against neglecting information about the composition of the behavior seized by the ETI. When using responses of the Norwegian self-employed to the tax reform of 2006 for illustration, we discuss how four different responses relate to the overall ETI, given characteristics of the reform. Effects on working hours, on tax evasion, and from shifts in organizational form and across tax bases are discussed. We provide empirical illustrations of the effects of each of these margins, and we show that the estimated ETI is biased downward because of organizational shifts.

2:30pm - 3:00pm

The Bias of the Estimators of the Elasticity of Taxable Income

Thomas Aronsson, Katharina Jenderny, Gauthier Lanot
Umeå University, Sweden

Measuring the ETI is important, as much a public policy depends on it (whatever the tax or its base). The measurement of ETI contributes to the design of current and future tax systems, however there are few "arguments" which would support or infirm that current methods are leading to measurement of the ETI that can be trusted. In this paper we show that in controlled environments, with "simple" preferences, the measurement of the ETI using the method used in the literature leads to results that are biased (even in the best of cases). Furthermore, in many cases the mis-measurement is not only a question of bias but of magnitude.

3:00pm - 3:30pm

How Do Entrepreneurial Portfolios Respond to Income Taxation?

Frank M. Fossen[1], Ray Rees[2], Davud Rostam-Afschar[3], Viktor Steiner[4]
[1]Department of Economics, University of Nevada, Reno, U.S.A.; [2]CES, Faculty of Economics, Ludwig-Maximilians-Universitaet Muenchen, Germany; [3]Department of Economics, Universitaet Hohenheim, Germany; [4]Department of Economics, Freie Universitaet Berlin, Germany

We investigate how comprehensive personal income taxes affect the portfolio share of personal wealth that entrepreneurs invest in their own business. In a portfolio choice model that allows for underreporting of private business income to tax authorities, we show that a fall in the tax rate may increase investment in risky entrepreneurial equity at the intensive margin, but decrease it at the extensive margin. Using German household panel data, we analyze the effects of marginal tax rates on the portfolio shares of six asset classes, including private business equity. We identify the tax effects by exploiting tax reforms during our observation period. We also use changes in entry regulation to account for selection into

entrepreneurship. Estimation results are consistent with the predictions of our theoretical model. Lower taxes drive out businesses that are viable only due to tax avoidance or evasion, but increase investment in productive entrepreneurial businesses.

1:30pm - 3:30pm
KFC, Room 101

G02: Benefit take-up

Session Chair: **Tuuli Paukkeri**, VATT Institute for Economic Research

1:30pm - 2:00pm

The Effect on Take-Up of Means-Tested Benefits of a Change in Fixed-Term Pension Information

Johannes Hagen[1], Daniel Hallberg[2], Gabriella Sjögren Lindquist[2]
[1]Uppsala University, Sweden; [2]Swedish Social Insurance Inspectorate

That means-tested benefits may create incentives to cash-out pension wealth at retirement is well-known. However, no study has yet addressed the empirical relationship between actual payout decisions and the take-up of means-tested benefits. We estimate the causal effect of fixed-term payout options on the take-up of means-tested housing allowances in Sweden. Exogenous variation in the availability of fixed-term payout options comes from an application form change in the occupational pension system which nudged individuals towards the 5-year payout. Difference-in-difference estimation results show that the take-up of the housing allowance increased both during and after the 5-year payment and that the effect is mainly driven by single women. The fact that we see an effect in the short run suggests that individuals seek information about housing allowance when they receive information about the possibility of fixed-term payouts and plan how they will cope financially when the fixed-term payouts end.

2:00pm - 2:30pm

Does information increase the take-up of social benefits? Evidence from a new benefit program

Tuomas Matikka, Tuuli Paukkeri
VATT Institute for Economic Research, Finland

The effectiveness of transfer programs can be significantly reduced if eligible individuals fail to apply for them. In this paper we show that benefit take-up can be influenced by providing targeted information to the eligible population. We exploit the implementation of the guarantee pension program in Finland in 2011, which offered a minimum monthly pension to low-income pensioners. The Finnish Social Insurance Institution sent information letters together with application forms to a portion of the eligible population a month before implementation. We find clear evidence that this simple and inexpensive mailing significantly increased take-up and prompted pensioners to apply sooner.

2:30pm - 3:00pm

Complexity and Benefit Take-up: Empirical Evidence from the Finnish Homecare Allowance

Tomer Blumkin[1], Tuomas Kosonen[2], Kaisa Kotakorpi[3]
[1]Ben Gurion University, Israel; [2]Labour Institute for Economic Research, Finland; [3]University of Turku, Finland

We analyse how the complexity of application procedures affects the take-up of benefits in a setting where complexity can be clearly measured, and the effects of complexity can be separated from other potential causes of non-take-up. We study take-up in the context of a benefit that is used by individuals from all socioeconomic groups, namely the municipal supplement to the child homecare allowance in Finland. We utilize individual-level data on mothers of young children together with municipal-level data on the application rules for the municipal supplement. Municipal level variation in the application procedures can be used to estimate the causal effect of complexity on take-up.

3:00pm - 3:30pm

Take-up of Welfare Benefits

Tuuli Paukkeri
VATT Institute for Economic Research, Aalto University

Incomplete take-up is a common phenomenon across various social benefit programs. Understanding why eligible individuals do not claim their benefits can help in the design of efficient public programs. In this paper I use unique data from Finland to provide new stylised facts on the take-up of welfare benefits. I extend the standard static framework by taking eligible households' income dynamics into account. I find that eligibility to the benefits is concentrated among the worst-off households, but that eligible households who do not take up the benefits are experiencing only a short-term fall in income, from which they recover shortly afterwards. On the contrary, households who claim benefits typically have permanently low income. The findings are consistent with households reacting to the benefit schemes in a rational manner, weighting expected benefits to take-up costs. Take-up costs thus do matter, but do not seem to screen out the most needy families.

1:30pm - 3:30pm
KFC, Room 103

G03: Tax collection in developing countries

Session Chair: **Sacchidananda Mukherjee**, National Institute of Public Finance and Policy (NIPFP)

1:30pm - 2:00pm

Goods and Services Tax and Price Control Measures: Lessons for India from Australian Experience

Sthanu R Nair, Leena Mary Eapen
Indian Institute of Management Kozhikode, India

The Model Goods and Services Tax (GST) Law which would guide the implementation of GST in India has incorporated an “Anti-profiteering” clause aimed to ensure that the businesses pass on to the

consumers the cost savings resulting from the adoption of GST. The responses from the businesses and commentators to the inclusion of this clause have been skeptical. In this context, the objective of this paper is to study Australia's experience with price monitoring during the GST transition period and draw suitable lessons for India on the feasibility of implementing anti-profiteering measures in the Indian context.The paper finds that, following Australian model, it is possible to institute a comprehensive and effective price monitoring mechanism in India to ensure that consumers receive the full benefits from GST introduction in the form of lower prices expected due to tax reductions, input tax credits received by the businesses and reduction in compliance cost.

2:00pm - 2:30pm

Trade Tariff, Wage Gap And Public Spending

Michele Giuseppe Giuranno, **Antonella Nocco**
University of Salento, Italy

This paper studies the interplay between wage gap and government spending in a small open economy facing a liberalization of commodities trade with the external world. We consider a developing economy with two sectors: an export sector, which uses capital and unskilled labour, and an import-competing sector, which uses capital and skilled labour. In this specific factor model, the return to capital is the link between the two sectors. We show that there exists a direct relation between trade liberalization, which decreases the skilled-unskilled wage gap, and the level of government expenditure. However, either an unbalanced distribution of political bargaining power, or tariff revenue co-financing of public spending may break this direct relation.

2:30pm - 3:00pm

Growth Dynamics of Value Added Tax Revenue in Low Income Countries: The Case of Ghana

Francis Kwaw Andoh
Unversity of Dar es Salaam, Tanzania/University of Cape Coast Ghana, Tanzania

Ghana adopted Value Added Taxation as major part of its fiscal reforms that was needed to create fiscal space, build buffers and to address the huge fiscal imbalances emanating from less productive tax regime. However, more than two decades into the implementation of VAT, not only Ghana's tax-GDP ratio is still below the sub-Saharan average but also its fiscal deficit has reached almost unsustainable levels. This study seeks to answer four key questions: (1) Is Ghana's VAT revenue growing and stable enough to ensure effective fiscal monitoring and planning? (2) What is driving the VAT revenue growth - tax base or discretionary tax measures (DTM)? (3) Is there a trade-off between revenue growth and stability? (4) Is there any evidence of asymmetric responses? These dimensions are critical for fiscal policy design and implementation, specifically, in monitoring tax collection progress, government budgets formulation and forecasting tax revenues.

3:00pm - 3:30pm

Efficiency in Value Added Tax (VAT) Collection across Indian States: Panel Stochastic Frontier Analysis

Sacchidananda Mukherjee
National Institute of Public Finance and Policy (NIPFP), India

Growing demand for public expenditures, limitations in expanding fiscal space, limited scope to deviate from common harmonized tax system under the proposed Goods and Services Tax (GST) regime, may induce Indian states to look for opportunities to expand revenue mobilization through alternative channels. An assessment of the existing tax efficiency and strengthening tax administration could be one of such alternatives.

There are a number of papers which estimate tax effort of Indian states. Taking this exercise to the next level, this paper focuses on measuring tax effort and identifying factors that explain variations in the tax effort. In measuring tax potential, an attempt is made to differentiate between factors that determine the tax base and factors that constrain the state from utilizing the available base. The exercise looks at comprehensive revenue collection under Value Added Tax of general category states for the period 2001-14.

1:30pm - 3:30pm
KFC, KFC Hall

G04: Local taxation

Session Chair: **Yuzo Higashi**, Kobe City University of Foreign Language

1:30pm - 2:00pm

Municipal Merger under Tax Competition with Debt

Tsuyoshi Goto
Osaka university, Japan

This paper analyzes whether municipal merger increases social welfare in a dynamic tax competition model. Though some papers about tax competition show that municipal merger increases social welfare because it terminates tax competition, the analysis finds that a welfare-decrease effect of municipal merger might eclipse a welfare-increase effect of municipal merger since it causes `common pool problem'. Another result of this paper shows that governments issue excessive debts in both municipal merger and non-municipal merger cases, while the reason of this is different in each case.

2:00pm - 2:30pm

Medium-Term Expenditure Framework Reform and Its Impact: A Case Study of Korea

Nowook Park
Korea Institute of Public Finance, Korea, Republic of (South Korea)

This case study provides an inside story of medium-term expenditure framework reform in the Republic of Korea and offers some suggestive evidence about the impact of the reform. Drawing on theories of change management, the study explores how actors within the Korean government created acceptance of

reform needs among relevant stakeholders, how they handled various challenges throughout the reform, how they built capacity among stakeholders, and how they institutionalized the reform measures that were consistent with stakeholder incentives. The case highlights the following implications: (1) having strong support from top decision makers is essential to successful medium-term expenditure framework reform; (2) finding ways of integrating a medium-term expenditure framework into the budget process is critical; and (3) making the framework stable and sustainable requires both capacity building of relevant stakeholders and significant organizational restructuring.

2:30pm - 3:00pm

Yardstick Competition in Local Business Taxation:Quasi-experimental Evidence from Portugal

Mariana Lopes da Fonseca

Max Planck Institute for Tax Law and Public Finance

This paper exploits an exogenous reform introducing a local business tax in Portugal to study yardstick competition among jurisdictions. The identification strategy relies on a quasi-experimental difference-in-differences methodology and heterogeneity in treatment intensity. Results provide evidence of significant strategic interactions in local business taxation. Tax mimicking, however, decreases over time. The empirical analysis suggests this to be the result of no retrospective voting by the electorate in response to the local business tax. Incumbents' popularity and probability of reelection are not affected by tax policy. This informational shock released by the local election outcomes is behind the long-run lack of interdependence in tax setting among jurisdictions. Yardstick competition is, in this context, a short-term out-of-equilibrium phenomenon.

3:00pm - 3:30pm

Yardstick competition, efficiency of local public goods, and fiscal transfers : Welfare improvement and implications for fiscal equalization

Yasuyuki Nishigaki[1], Yuzo Higashi[2]

[1]Ryukoku University, Japan; [2]Kobe City University of Foreign Language, Japan

The yardstick competition theory demonstrates how intergovernmental competitions can be used to advantage to regulate the performance of local governments. However, in yardstick competition, the equilibrium level of the provision of public goods is below the optimal level. In this paper, in order to improve the efficiency of a yardstick equilibrium, we study the effects of introducing a tax-cum-transfer policy by the central government. In the "voting with their feet" model, a bilateral voluntary transfer by local governments assures the optimal provision of public goods. We demonstrate that under yardstick competition, a transfer program by the central government can ease the inefficient provision of public goods. Further, the yardstick bias and win–win welfare improvement of equalization transfer are investigated in a simple setting of fiscal discrepancies.

1:30pm - 3:30pm
KFC, Room 106

G05: Property taxation and housing

Session Chair: **Tomomi Miyazaki**, Kobe University

1:30pm - 2:00pm

The Effects of Housing Property Tax Reforms in China

Shiyu LI[1], Shuanglin Lin[2]

[1]Renmin University of China, China, People's Republic of; [2]University of Nebraska, Omaha, NE 68182-0048, USA

This paper develops a dynamic equilibrium model of overlapping generations to study the effects of revenue-neutral property tax reforms in China on capital accumulation and the welfare of current and future generations. A housing property tax is introduced as a tax on durable consumption good in an overlapping generations with multi-period lived individuals. An introduction of a housing property tax, with capital income tax, or labor income tax, or consumption tax, or government debt being endogenous, increases private savings, investment, the capital-labor ratio, and the output-labor ratio. The positive effect is larger if capital income tax is endogenous, while it is smallest if consumption tax is endogenous. The tax reform also increases the welfare of the future generations while reducing the welfare of the current and the old generations.

2:00pm - 2:30pm

Non-performing Loans and Housing Prices in China

Junmin Wan

Fukuoka University, Japan

Using bank panel and industrial panel data sets, we empirically examine the relationship between non-performing loans (NPLs) and housing prices in China. First, housing bubbles were found in major cities between 2004 and 2015 by a bubble test. Second, by panel estimations on 1,117 and 2,832 pooled bank-year samples during 2007-2015, it was found that housing prices had significantly negative impacts on NPL ratios. Third, by 19 industrial panel data during 2005-2015, it was also found that housing prices had negatively significant impact on NPLs. Fourth, housing prices Grangers caused NPLs but the opposite one was not statistically supported. Finally, by treating "restriction of speculative housing purchase (RSHP)" in 50 cities from 2010 to 2014 as instruments for housing prices, we found that RSHP had significantly raised NPL ratios due to raising the vacant housing floor space, decreasing housing investment, and profit of housing-related firms.

2:30pm - 3:00pm

Housing and the Tax System: How Large are the Distortions in the Euro Area?

Serena Fatica[1], Doris Prammer[2]

[1]European Commission, Italy; [2]Oesterreichische Nationalbank

This paper presents new evidence on the impact of the preferential treatment of owner-occupied housing in Europe. We find that tax benefits to homeowners reduce the user cost of housing capital by almost 40 percent compared to the efficient level under neutral taxation. On average, the tax subsidy translates into an excess consumption of housing services equivalent to 7.8 percent of the value of owner-occupied housing, or about 30 percent of financial asset holdings in household portfolios. The bulk of the subsidies stems from under-taxation of the return to home equity, while the average contribution of the tax rebate for mortgage interest payments is driven down by relatively low loan-to-value ratios in the data. However, at the margin, the tax–induced incentive to use mortgage debt to finance the purchase of the main residence is sizable.

3:00pm - 3:30pm

Property Tax and Land Use in Japan

Motohiro Sato[1], **Tomomi Miyazaki**[2]

[1]Graduate School of Economics, Hitotsubashi University; [2]Graduate School of Economics, Kobe University/Department of Economic, University of California, Irvine

This paper examines the relationship between property tax and land use in Japan. Especially, we would like to focus on the reform of Production Green Land Law and the abolishment of tax on farm continuing long-term agricultural operation in 1992. We examine the effects of these reforms related to the agricultural land use using the difference-in-difference (DID) approach.

We examine this for the special municipalities of Japan’s three major metropolitan areas (Kanto, Kinki, and Chubu). In Japan, like the US, property tax is the primary revenue source for municipalities, and it is also levied on land. On the other hand, there have been many preferential tax treatments for certain land uses in place. Among them special treatment on agricultural land is significant which could lead to the inefficient land use. Therefore, the present paper concerns such special treatment on agricultural land and its reforms.

1:30pm - 3:30pm

KFC, Room 107

G06: Pensions

Session Chair: **Constance Smith**, University of Alberta
Discussant Paper 1: **Luca Gialleonardo**, Mefop SpA
Discussant Paper 2: **Constance Smith**, University of Alberta
Discussant Paper 3: **Christoph Metzger**, Albert-Ludwigs Universität Freiburg

1:30pm - 2:00pm

Accounting of the German Statutory Pension Scheme: Balance Sheet, Cross-Sectional Internal Rate of Return and Implicit Tax Rate

Christoph Metzger

Albert-Ludwigs Universität Freiburg, Germany

We present a framework for accounting of the German statutory pension scheme and estimate a balance sheet for the period from 2005 to 2012. Extending and applying the methodology proposed by Settergren and Mikula (2005), we estimate the cross-sectional internal rate of return of the German pension scheme over this period. We are able to show that these internal rates of return are mainly financed by increasing contributions and by changing the liabilities not backed by assets. Additionally, our results reveal that from an expenditure perspective, the major part of the internal rate of return is resulting from changing longevity rather than other changes. Finally, we show that from a cross-sectional perspective, the implicit tax of a pension scheme can mainly be interpreted as an “implicit wealth tax” on pension wealth and subsequently present empirical estimates for these cross-sectional implicit tax rates.

2:00pm - 2:30pm

The Efficiency Of Italian Pension Funds: Costs, Membership, Assets

Luca Gialleonardo[1], **Mauro Marè**[1,2]

[1]Mefop SpA, Italy; [2]LUISS Guido Carli

An efficient and affordable system of pension funds is an important factor to realize the workers’ aims of maximizing the value of their pension wealth. A rationalization of the industry structure, leading to the creation of bigger pension funds, that should be better able to take advantage of economies of scale, might contain the costs sustained by participants.

Based on an original dataset of Italian closed pension funds in the 2007-2013 period, this work runs a panel estimate of the impact of dimension (the number of participants) on administrative costs. Our results highlight the existence of important overall economies of scale.

We evaluate the link between financial costs and the sum of assets under management. The estimates do not confirm the existence of economies of scale, probably due to the distinctive traits of the complementary pension funds industry in Italy.

2:30pm - 3:00pm

Can a Discount Rate Rule Improve Pension Fund Sustainability?

Constance Smith, **Stuart Landon**

University of Alberta, Canada

We evaluate the ability of a "fully funded" pension plan to meet its promised benefit payments when the pension’s funding status is determined using different discount rate-setting rules. Finance theory indicates that the discount rate should be a default-free rate, but pension plan administrators argue for a (usually higher) rate equal to the return on plan assets. To account for the uncertainty of the return to plan assets and future benefit payments, we employ Monte Carlo techniques and a model estimated using US data. The volatility associated with pension fund asset returns and payouts means that, to generate a high probability of meeting pension obligations, it is necessary to use a discount rate that, on average, causes the accumulation of significant assets in excess of pension benefit obligations. With the better-performing rules, the discount rate is a function of economic variables, such as the inflation rate and government bond yields.

3:00pm - 3:30pm

Identity Conflict with Cross border spillovers

Dripto Bakshi
Indian Statistical Institute, India

We model simultaneous inter and within identity-group conflict in two territories connected by cross-territorial spill-overs. Within each territory, two groups contest the division of a groupspecific public good, and all members contest the division of group income. Each group has a cross-border affiliate. Greater success (share) of its affiliate 'spills over' into higher efficiency of a group in inter-group conflict. We find that inter-group and total conflict move together within a territory, while within-group conflict and output move in the opposite direction. A unilateral increase in cross-border spill-over reduces inter-group conflict in the source territory but increases it in the destination; an equi-proportionate bilateral increase affects conflict in a non-monotone manner. Population increase in a territory, a larger minority, weaker property rights, higher relative labour productivity of the majority, may all increase inter-group conflict in the other territory. Community-neutral growth in labour productivity within a territory reduces inter-group conflict therein.

1:30pm - 3:30pm
KFC, Room 108

G07: Tax avoidance and corruption

Session Chair: **Steven Sheffrin**, Tulane

1:30pm - 2:00pm

Tax avoidance by capital reduction: Evidence from corporate tax reform in Japan

Kaoru Hosono[1], Masaki Hotei[2], Daisuke Miyakawa[3]
[1]Gakushuin University, Japan; [2]Daito Bunka University, Japan; [3]Hitotsubashi University, Japan

Using the pro forma standard taxation system introduced in Japan, 2004, as a natural experiment, we empirically examine how firms reacted to this exogenous institutional change, which burdened all the firms holding stated capital larger than a threshold (i.e., 100 million JPY) with additional tax payment, and how such a reaction (if any) systematically resulted in firm growth. Our estimation results show, first, that firms originally holding capital above the threshold were more likely to reduce their capital to the threshold level, or below, after the announcement of the new tax system. Second, we also find that firms exhibiting lower performance and/or getting more tax benefit by reducing their capital were more likely to do so. Third, firms experiencing such capital reduction showed a higher exit rate and ex-post lower growth in its size, measured by total and tangible assets, total debt, number of employees, and sales.

2:00pm - 2:30pm

Lenders' Discipline and Tax Avoidance

Anna Alexander, Antonio De Vito, Magdalena Pisa
WHU - Otto Beisheim School of Management, Germany

This paper shows that, if faced with financial frictions on the credit markets, firms with great liquidity needs prefer to regain access to credit markets by reducing their corporate tax avoidance and thus information asymmetries. Our identification strategy is based on estimating the effect of firms' debt maturity structure on corporate tax avoidance during industry downturns. We rely on the rigidity in the debt maturity to identify our treatment group and run several firm-level regressions in a difference-in-differences setting. We find that firms that engage in aggressive tax planning prefer to forgo the after-tax cash flow benefits of tax avoidance to regain the access to credit markets rather than relying on cash savings from tax avoidance strategies. However, there exists cross-sectional differences across firms depending on their default probability.

2:30pm - 3:00pm

Family Background, Government Policy and Doing Business in China

Xiaohuan Lan[1], Ruixue Jia[2], Gerard Padro i Miguel[3]
[1]Fudan University, China, People's Republic of; [2]UC, San Diego, USA; [3]London School of Economics, UK

This paper investigates how the political background of parents matters for children's involvement in business in China. We first evaluate the advantage of having cadre parents for becoming a business owner, using multiple waves of a nationally representative survey between 2005 and 2012. Then, we document that the effect varies greatly with respect to government policies. Specifically, exploiting variation in government spending across provinces and the Fiscal Stimulus Package in 2009, we find that the advantage of having cadre parents is significantly larger in regions where governments spend more on business-related activities. Further evidence from firm-level subsidies and subjective evaluation of factors that matter for success also sheds light on the mechanism.

3:00pm - 3:30pm

Personal And Corporate Tax Avoidance: Corporations Are Not Always the Villains

Steven Sheffrin, Rujun Zhao
Tulane, United States of America

Using data both from a specially designed survey and from the Pew Research Center, we compare public attitudes towards tax avoidance by individuals and corporations. Drawing on a variety of empirical methods, we demonstrate that, contrary to some common beliefs, the public actually is more sensitive to tax avoidance by wealthy individuals than by corporations. We also provide evidence that attitudes against tax avoidance by the wealthy are more fundamental than attitudes towards corporate avoidance. We establish this result using graph-theoretic methods for determining causal structures within recursive systems. These results can shed light on what types of corporate reforms may be acceptable to the public.

1:30pm - 3:30pm
KFC, Room 109

G08: Local public spending

Session Chair: **Laura Casellini**, Università della Svizzera Italiana

1:30pm - 2:00pm

Fiscal Rules and Fiscal Performance: Evidence from Switzerland

Laura Casellini, **Raphaël Parchet**
Università della Svizzera Italiana, Switzerland

We study the effect of fiscal rules on fiscal performance making use of the introduction of different balanced budget requirements at the cantonal and municipality levels in Switzerland over the past 25 years. We exploit the different timing of canton-level and municipality-level reforms of fiscal rules to control for time-invariant confounding factors as well as canton-specific trends. We find that more stringent fiscal rules at the cantonal level weakly reduces total cantonal and municipal decits through an increase in total revenues. We find also some evidence for the vertical interdependencies between canton-level and municipality-level fiscal rules in the long run but not in the short run.

2:00pm - 2:30pm

Transparency and performance in the Italian Municipalities

Emma Galli[1], **Ilde Rizzo**[2], **Carla Scaglioni**[3]
[1]Sapienza University of Rome, Department of Social and Economic Sciences; [2]University of Catania, Department of Economics and Business; [3]Università Mediterranea di Reggio Calabria, Italy

In this paper, we aim at evaluating from an economic perspective the recent Italian legislation on transparency to investigate whether the potentialities of transparency as a tool to foster accountability, both in terms of performance and integrity, and to favour public opinion involvement, are fully exploited. We first construct a synthetic indicator (CTI) consisting of two sub-indicators, CTI Integrity and CTI Performance, able to describe quantitatively the overall degree of transparency of Italian public administrations as well as the two different aspects of the public activity's transparency. Then, using as a sample of Italian municipalities, we address the question whether there is a relation between the fulfillment of transparency obligations and both the institutional quality and the performance of the public administration activity. In both cases, our indicators show a satisfactory correlation, confirming that transparency matters

---

2:30pm - 3:00pm

Spillovers in a Decentralized Health Economy

Enlinson Mattos[2], **Marcelo Castro**[1], **Fernanda Patriota**[3]
[1]Fundaçao Getulio Vargas, Brazil; [2]University of Uberlandia, Brazil; [3]Lehman Foundation

We estimate the direct as well as the spillover effect of a federal grant (Municipalities' Participation Fund, FPM)) on local health indicators in Brazilian municipalities. We use a Regression Discontinuity Design (RDD) when exploring the FPM distribution rule according to population brackets. Our quasi-experimental estimates show that the FPM spillovers improve local health indicators but reduce the provision of public goods, especially when the neighbouring municipality receiving the additional transfer is small. The direct impacts are reduced when we control for neighbours' FPM, which shows that the spillover effects and spatial interactions are important for explaining the FPM effect on health outcomes.

3:00pm - 3:30pm

Legend of the pork barrel? The causal effect of legislature size on public spending

Orlando Zaddach, **Carolin Holzmann**
University Erlangen-Nuremberg, Germany

At-large electoral systems are believed to prevent the inefficient positive effect of government size on government spending (pork-barrel effect) which is inherent in systems of electoral districts. This paper presents a theoretical model that explicitly describes mechanisms counteracting pork-barrel spending in at-large systems. Using a rich panel dataset on German municipalities whose councils are elected at-large, we employ a regression discontinuity design to estimate the causal effect of government size of public spending. In line with our theoretical predictions, the empirical results reveal a pork-barrel effect that is statistically and economically zero. This empirically null result proves robust to different regression specifications.

1:30pm - 3:30pm
KFC, Room 100

G09: Fiscal consolidation

Session Chair: **Sebastian Georg Kessing**, University of Siegen

1:30pm - 2:00pm

The Politics of Fiscal Policy Signalling in Government Bond Issues

Yehuda Aryeh Porath[1], **Tal Sadeh**[2]
[1]Bank of Israel, Israel; [2]Department of Political Science, Tel Aviv University, Israel

We argue that in developed economies with relatively high sovereign credit ratings, the maturity of newly issued debt can serve as a fiscal policy signal, responding to, and thus conveying privileged information about impending improvement or deterioration in public finances. Sovereign Debt Management Offices (DMOs) can use such privileged information to benefit either the government or the primary dealers, as they balance the interests of both. Signals are fiscally costlier when DMOs lack autonomy from elected policymakers, because they lack credibility with primary dealers. Potentially influential cabinets can press autonomous DMOs to send less costly signals, but will be less successful with non-autonomous DMOs, because of their low credibility. We support our hypotheses with Fixed Effects regressions run on a unique dataset based on more than 27,500 issues of government debt in 31 mostly OECD countries during 2004-12, and a unique compilation of legal texts defining the authority of DMOs.

2:00pm - 2:30pm

Fiscal Consolidation at the Zero Lower Bound: Evidence from OECD Countries

Christian Breuer[1], **Sebastian Watzka**[2]
[1]Chemnitz University of Technology; [2]University of Munich

In this paper we estimate the effects of fiscal adjustments when interest rates are constrained by the zero lower bound (ZLB). In line with macroeconomic textbook theory our results suggest that the effectiveness

of fiscal policy dramatically increases when short-term interest rates are below a certain threshold. This finding is robust to alternative measures of fiscal consolidations and indicates that the recent combination of fiscal contractions and low interest rates may contribute to the weak economic performance in many OECD countries.

2:30pm - 3:00pm

Fiscal Consolidation and Debt Dynamics

Frederico Lima, Florian Misch

International Monetary Fund, United States of America

This paper examines trajectories of public debt ratios in response to fiscal consolidation episodes that are identified based on historical records. To this end, we construct counterfactual scenarios using the synthetic control method to estimate the causal effects of fiscal consolidation on public debt. We expect to show that due to fiscal multiplier effects, fiscal consolidation has on average at best only been able to stabilize debt ratios over the medium run. However, we also expect to show that debt dynamics significantly differ across countries, which this paper seeks to explain as well.

3:00pm - 3:30pm

Does Fiscal Oversight Matter?

Desiree Isabel Christofzik[2], Sebastian Georg Kessing[1]

[1]University of Siegen, Germany; [2]German Council of Economic Experts

A gradually introduced reform of local government accounting made it temporarily possible for municipalities in the German state of North Rhine-Westphalia to avoid the effective control of their budget by the authorities in charge of overseeing local government budgets and enforcing the existing fiscal rules. Using this withdrawal of effective fiscal oversight, we identify the effects of fiscal restraints and their enforcement on fiscal outcomes. We find that the withdrawal of oversight has a significant and sizable effect on per capita debt of local governments that were previously constrained by fiscal oversight. Fiscal restraints are important, and oversight and enforcement are key requirements for their success.

1:30pm - 3:30pm
KFC, Room 111

G10: Indirect taxation

Session Chair: **Miguel Angel Asensio**, Universidad Nacional del Litoral

1:30pm - 2:00pm

Piecemeal Modelling of the Effects of Joint Direct and Indirect Tax Reforms

Bart Capéau, Andre Decoster, Sebastiaan Maes, Toon Vanheukelom

KU Leuven, Belgium

This paper offers a framework to establish a micro-based budget and welfare evaluation of a joint reform in the personal income and indirect tax system. In the absence of an encompassing model for the labour market participation decision and the allocation of disposable income to commodities, our framework elicits a number of assumptions which allow us to consistently combine different submodels, so that a general assessment of a joint reform becomes possible. In addition, we characterize households' labour supply decisions by a random utility random opportunity (RURO) model, allowing us to incorporate demand-side effects from the labour market into our analysis. Applying

this framework to the recently enacted Belgian tax shift, we find substantial empirical

evidence that it is important to account for indirect taxes and demand-side effects in the

assessment of joint tax reforms.

2:00pm - 2:30pm

Tracing the Incidence of Indirect Taxes through the Production-Distribution Chain: Application to Jordan

Andrey Timofeev

Georgia State University, United States of America

In many counties, taxation has been shifting from trade taxes to indirect taxes on domestic consumption, primarily the Value Added Tax (VAT). Policy makers need information regarding who bears the burden of tax changes. In theory, a broad-based VAT should be equivalent to a tax on income after taxes less saving. However, in practice a VAT never applies to all commodities and sellers uniformly. Thus, the effective tax rate varies among final consumption items depending on the amount of tax levied and credited throughout the production-distribution chain. Furthermore, in addition to the VAT, in some countries a considerable part of public revenues still derives from excises and customs duties, which in turn become part of the VAT base. In this study, we propose a practical approach to incidence analysis of indirect taxes and apply it to develop a better understanding of the current distribution of indirect taxes in Jordan.

2:30pm - 3:00pm

Indirect Taxation Of Financial Services

Vidar Christiansen

University of Oslo, Norway

This paper analyses indirect taxation of a number of financial services. First, addressing taxation of intermediation that facilitates savings and borrowing, co-existence of indirect taxes and direct taxes on interest implies that taxing margin-based fees exacerbates or alleviates pre-existing distortions. Considering taxation of insurance, a distinction is made between insurance against a general loss of resources and a loss of a specific commodity. In the former case, the allocation is undistorted when exempting insurance services. Moreover, taxing general consumption rather than insurance mitigates risk by shifting more of the tax burden to high-consumption states. Where buying insurance is part of purchasing a particular good, a tax on the insurance-inclusive price is required to achieve neutrality. Considering payment services, there will be underuse of services that are charged for explicitly rather than

through a mark-up of the commodity price. The distortion is exacerbated when the former are no longer tax exempt.

3:00pm - 3:30pm

Turgor Revisited Again: Direct and Indirect Taxes and Economic and Fiscal Reform in the XVIII th. Century

Miguel Angel Asensio
Universidad Nacional del Litoral, Argentine Republic

The paper explores some issues related to direct and indirect taxation and the origin of the dichotomy in the Century preceding the Revolutionary France, mainly for the approach to taxation of the physiocrats. In particular, it is examined Turgot's contribution and his approach to the classification of tributes within the context of France in the second half of the 18th Century. The conclusion address the place of such contribution, the influences received and the notions assumed, given his overview of direct and indirect taxation as a precedent of modern or contemporary studies.

1:30pm - 3:30pm
KFC, Room 112

G11: Big government

Session Chair: **Yusuke Kinai**, Konan University

1:30pm - 2:00pm

And Yet It Grows: Crisis, Ideology, and Interventionist Policy Ratchets

Christian Bjoernskov[1], Martin Rode[2]
[1]Aarhus Universitet, Denmark; [2]Universidad de Navarra, Spain

Government reaction to economic crisis has long been a central element of public policy debate and is experiencing a certain revival after the Great Recession of 2008. Previous studies argue that crises may lead to more interventionist policies, but also cause deregulation and liberalization. Findings are thus diverse and unable to systematically explain idiosyncratic policy reactions. The present paper claims that whether or not governments implement more or less interventionist policy responses will depend on their core political ideology, leading to ideologically heterogeneous post-crisis strategies. Employing a panel of 68 countries with Western political institutions observed between 1975 and 2010, we find that growth crises cause larger increases in government size and regulatory policy when countries have left-wing governments. Interestingly, we also find clear evidence of policy ratchets, meaning that crisis policies present a strong tendency to become permanent, regardless of the ideology of successive governments in power.

2:00pm - 2:30pm

Are Efficient Taxes Responsible for Big Government? Evidence from Tax Withholding

Libor Dusek[1], Sutirtha Bagchi[2]
[1]University of Economics in Prague; [2]Villanova University, United States of America

This paper examines the impact of introducing withholding of the personal income tax by state governments in the U.S. We exploit the staggered adoption of withholding by individual states over the period 1948-1976 to construct a difference-in-differences style estimate of the impacts of withholding. We find that the introduction of withholding led to an immediate and permanent increase in income tax collections by 23.7 percent, holding tax rates constant. This estimate is very robust to alternative specifications and always statistically significant. We also find that the major response of state governments to the improvement in efficiency of collecting income taxes was a shift in the composition of revenue: the share of the income tax in total state tax revenue increased by about 19%.

2:30pm - 3:00pm

Tax Cuts Starve the Beast! Evidence from Germany

Daniel Stöhlker, Clemens Fuest, Florian Neumeier
ifo Institute, Germany

This paper empirically evaluates how fiscal policy reacts to changes in the government's fiscal situation. Utilizing panel data from the German states covering the period from 1992 to 2011, we assess to what extent exogenous changes in tax revenues affect total public revenues, public expenditure, and the fiscal balance. Applying the narrative approach pioneered by Romer and Romer (2010), we construct a measure of exogenous tax shocks, allowing us to identify the causal effect of tax changes on fiscal policy. Our findings indicate that tax changes are inversely related to the primary deficit, i.e., tax hikes are associated with a fiscal surplus, tax cuts with a deficit. Tax changes trigger expenditure adjustments into the same direction after 2 to 3 years.

3:00pm - 3:30pm

Government Organization and Economic Performance

Yusuke Kinai
Konan University, Japan

In the traditional macroeconomics, the government has been assumed to be a monolithic organization that is intended mainly to maximize social welfare or raises the growth rate. However, actually, the government has various kinds of roles and their objective functions differ depending on what kind of policy which policymakers are engaged in. Considering such points, there emerges a kind of conflict even inside the government, but the relationship between such conflicts and economic outcomes have been written off. In this paper, we attempt to establish the model which explains the relationship between organizational structure and economic performance by employing the common agency model developed by Bernheim and Whinston (1986). What matters is that the interplay between the contribution and the policy determined through lobbying.

1:30pm - 3:30pm

KFC, Room 113

G12: Optimal tax credits

Session Chair: **Christine Ho**, Singapore Management University

1:30pm - 2:00pm

Pareto-efficient tax breaks

Sebastian Koehne[1], **Dominik Sachs**[2]

[1]Stockholm University, Sweden; [2]European University Institute

We analyze Pareto-efficient tax breaks for work-related expenses in a Mirrleesian environment. In addition to a labor-leisure choice, the agents decide how to spend their money between consumption and work-related goods. We derive an efficiency condition that relates the (implicit) subsidy rate for work-related goods to the marginal tax rate. The condition holds irrespective of the skill distribution and the taste for redistribution. If the efficiency condition is violated, we show how to Pareto improve such allocations. For the policy-relevant case where the work-related good contributes to the time available for market work (e.g., domestic services, child care or care for elderly relatives), Pareto-efficiency requires that the implicit time-investment subsidy lies strictly between zero and the labor wedge. Moreover, the efficient relation between labor wedges and implicit time-investment subsidies is solely determined by the Frisch elasticity of labor supply.

2:00pm - 2:30pm

The Optimal Earned Income Tax Credit

Michel Strawczynski, **Eitan Regev**

Hebrew University of Jerusalem, Israel

In this paper we characterize the optimal linear and piecewise linear EITC schedule. In the linear framework we demonstrate that in the presence of unemployment, an increase of social inequality aversion and a decrease in labor aversion both derive in a lower optimal EITC. For the piecewise linear schedule, we show that in most cases the optimal schedule is a triangle, which is at odds with actual policy, that is based on a trapezoid. According to our simulation, the use of a trapezoid instead of a triangle implies a substantial loss in terms of Social Welfare. After mimicking the wage distribution in different countries, we show that changes in the share of the "very rich" have a lower impact on the optimal EITC compared to changes in the wage variance. Finally, we show that the main impact of an increased minimum wage on the optimal EITC schedule is a more pronounced phasing out.

2:30pm - 3:00pm

Optimal Income Support for Lone Parents: Are We There Yet?

Henk-Wim De Boer, **Egbert Jongen**

CPB Netherlands Bureau for Economic Policy Analysis, Netherlands, The

The Netherlands witnessed major reforms in income support for lone parents over the past decade. The goals of these reforms were to improve the financial incentives to work and to simplify the system. We consider whether the new system can be considered (closer to) `optimal'. We employ the inverse-optimal method of optimal taxation, estimating extensive and intensive labor supply responses and using an advanced tax-benefit calculator. The implicit social welfare weights in the initial tax-benefit system feature two anomalies: i) they are not monotonically declining in income, and ii) they are sometimes negative. After the reforms, the implicit social welfare weights are well-behaved:

monotonically declining in income and positive.

3:00pm - 3:30pm

Optimal Social Insurance with Informal Child Care

Christine Ho

Singapore Management University, Singapore

The possibility of engaging in household child care may exacerbate the incentives of parents and grandparents to falsely claim disability benefits as households also get to save on formal child care costs. This paper considers a a multi-generational family model with persistence in privately observed shocks and presents an efficient implementation case for subsidizing formal child care costs of the disabled. An implementation of the optimal scheme that consists of capped formal day care subsidies, non-linear income taxation and asset-testing is proposed. Simulations based on a parametrization that targets key features of the US labor and child care markets suggest that day care subsidies may lead to sizeable cost savings.

1:30pm - 3:30pm

KFC, Room 115

G13: Subsidizing emplyoment and firm creation

Session Chair: **Mario Jametti**, Università della Svizzera italiana (USI)

1:30pm - 2:00pm

Effects Of Subsidizing The First Employee - Evidence From Finland

Annika Tiia Maria Nivala[1,2]

[1]University of Turku, Finland; [2]VATT

This paper studies the effects of the first employee employment subsidy implemented in parts of Finland in 2007—2011. The subsidy amounted to 30% of the wage costs of the first employee in the first year and 15% in the second. Using a difference-in-differences approach, I estimate the effect on the probability of becoming an employer. The results suggest that the subsidy did not increase hirings by non-employer firms significantly, implying that the labor demand elasticity of non-employer firms is very small. The subsidy did not seem to affect entry or exit of firms either. Focusing on more growth oriented subgroups of firms or using different approaches do not change the results. These findings suggest that targeting employment subsidies to non-employer firms may not be an effective way to promote employment and growth in small businesses.

2:00pm - 2:30pm

Tax Policy and Entrepreneurial Entry with Double Information Asymmetry and Learning

Diego d'Andria
European Commission Joint Research Centre (JRC), Spain

We study a market with entrepreneurial and workers entry where both entrepreneurs' abilities and workers' qualities are private information. We develop an Agent-Based Computable model to mimic the mechanisms described in a previous analytical model (Boadway and Sato 2011). Then, we introduce the possibility that agents may learn over time about abilities and qualities of other agents, by means of Bayesian inference over informative signals. We show how such different set of assumptions affects the optimality of second-best tax and subsidy policies. While with no information it is optimal to have a subsidy to labour and a simultaneous tax on entrepreneurs to curb excessive entry, with learning a subsidy-only policy can be optimal as the detrimental effects of excessive entrepreneurial entry are (partly or totally) compensated by surplus-increasing faster learning.

2:30pm - 3:00pm

Firm Foundation and Location Choices: The Effects of Public Good and Service Provision

Nadine Riedel[2], Martin Simmler[3], Christian Wittrock[1,2]
[1]Ruhr Graduate School in Economics, Germany; [2]Ruhr-University Bochum, Germany; [3]Said Business School, United Kingdom

The aim of this paper is to determine the effect of public good and service provision on firm foundation and location choices. For that purpose, we make use of unique panel data on the birth, death and relocation of the universe of German firms and link it to information on local public good and service provision by municipalities. Theoretical considerations predict a positive effect of PIGS provision on net firm foundation and firm location in the PIGS-providing municipality, while the effect on neighboring jurisdictions is ambiguous. We test these theoretical notions drawing on fixed effects Poisson models that absorb time constant heterogeneity in location and foundation rates across municipalities. Our results suggest that aggregate PIGS spending exerts a positive effect on firm foundation and relocation in the PIGS-providing jurisdiction. PIGS spending has a negative effect on firm location and foundation rates in neighboring municipalities (suggesting that negative competition effects dominate).

3:00pm - 3:30pm

Catastrophic Agglomeration: Indirect Evidence from the Tax Sensitivity of Firm Births?

Mario Jametti[1], Marius Brülhart[2], Edoardo Slerca[1]
[1]Università della Svizzera italiana (USI), Switzerland; [2]University of Lausanne

A distinctive feature of recent economic geography models is their prediction of "catastrophic" agglomeration, whereby strong clustering forces can be triggered by small changes in some underlying parameters at critical thresholds. We search for evidence for the implied discontinuities in the data, relating the clustering intensity of industries to those industries' sensitivity to differential tax burdens across locations. Using data on firm births in Switzerland we find that the tax sensitivity of firms' location choices falls off sharply around the 80th percentile of agglomeration intensity. This result is consistent with the jump discontinuity implied by the theory.

4:00pm - 5:00pm **KFC, KFC Hall**	**Plenary IV: Keynote Lecture Alan Auerbach (University of California at Berkeley) on "Tax Reform in Theory and Practice"** Session Chair: **Monika Buetler**, University of St. Gallen
5:00pm - 5:30pm **KFC, KFC Hall**	**Closing Ceremony** Session Chair: **Joel Slemrod**, University of Michigan
7:00pm - 10:00pm **Tobu Hotel Levant, room 4F "Nishiki"**	**Conference Dinner**