



70th Annual Congress of the International Institute of Public Finance

## Redesigning the Welfare State for Aging Societies

August 20th – 23rd, 2014 - Lugano, Switzerland



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### Conference Agenda

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### Session Overview

Date: Wednesday, 20/Aug/2014

9:00am - 10:00am

Opening Ceremony

Aula Magna, Main Building

10:00am - 11:00am

Keynote I: Early Life Conditions and Later Life Outcomes

Aula Magna, Main Building

Session Chair: **Matz Dahlberg**, Uppsala University  
 Keynote Lecturer: James P. Smith (Rand Corporation, USA)

11:30am - 1:00pm

BusTax 1: Taxing multinational firms

A 11, Palazzo Rosso

Session Chair: **Dharmika Dharmapala**, University of Illinois

#### Interest Deductions in a Multijurisdictional World

**Dharmika Dharmapala**<sup>1</sup>, **Mihir Desai**<sup>2</sup>

<sup>1</sup>University of Illinois, United States of America; <sup>2</sup>Harvard University, United States of America

The tax treatment of interest expenses in a multijurisdictional setting raises numerous complexities. This paper catalogs these difficulties and highlights the particular problems associated with efforts to achieve ownership neutrality among multinational corporations (MNCs) when debt financing is available. We argue that the differential deductibility of debt entailed by various current tax law provisions leads in general to potential distortions in the patterns of asset ownership across MNCs, and that various proposed solutions have significant limitations. We suggest several alternative regimes to address both the ownership distortions that we highlight, as well as other well-established problems of income-shifting through debt. These alternative regimes are extensions to a multinational setting of two general approaches to the neutral treatment of interest expenses - the CBIT and ACC. These regimes - a worldwide debt cap (WDC) and a net financing deduction (NFD) - provide solutions to income-shifting and ownership distortions. However, they have the potential disadvantage of restricting other policy parameters.

#### International distribution of the corporate tax base: Impact of different apportionment factors under unitary taxation

**Simon Loretz**<sup>1</sup>, **Alex Cobham**<sup>2</sup>

<sup>1</sup>University of Bayreuth, Germany; <sup>2</sup>Center for Global Development

Under the current system of separate accounting international profit shifting will result in misalignment of profits and real economic activity. In reaction to increasing fiscal pressure during the current financial crises mayor tax reforms like unitary taxation with formula apportionment of the profits have been proposed. This paper aims to contribute to understanding of the differences in the international distribution of the corporate tax base between the current system and the leading unitary taxation alternatives, by exploiting a global database of company balance sheets. We find that apportioning profit according to measures of actual economic activity would result in major redistributions of the tax base. First international loss consolidation is likely to reduce the overall tax base in the range of 10 percent in our sample. Further, apportioning according to number of employees will dramatically redistribute to lower income countries while using cost of employees will do the opposite.

#### Exploiting a Window of Opportunity: Multinationals' Profit Shifting in the Absence of Restrictions

**Carolin Holzmann**

FAU Erlangen-Nuremberg, Germany

This paper asks whether and how multinational enterprises' (MNEs) tax planning responds to changes in the tax law that create new opportunities for profit shifting. We analyze MNEs' internal debt shifting during a window of opportunity. Our empirical identification strategy exploits random variation in the window length that results from the firm-specific introduction mechanism of the anti-shifting legislation. We use data from the Microdatabase Direct Investment which provides detailed information on foreign subsidiaries of German MNEs. Generally, our results show that the window has an impact on both the probability and the volume of internal lending. Even conservative estimates indicate an increase in the probability by 7% and on the volume by 14.4% per 90-day window. Fiscal consequences in terms of tax revenue losses, however, appear to be negligible because the average volume of internal lending is rather small.

11:30am - 1:00pm

Health 1: Long-term care

A 22, Palazzo Rosso

Session Chair: **Theis Theisen**, University of Agder

#### Redesigning the Long-Term Care Financing for Aging Societies

**Jaroslav Vostatek**

University of Finance and Administration, Czech Republic

We compare the liberal, social-democratic, conservative and neoliberal design of LTC financing, separately mentioning the Austrian and Czech reforms as well. Any LTC model has to take the health care design used into account. England has been trying the combination of a social-democratic health care system with a liberal welfare LTC system, generating many inconveniences due to asset testing and persistence of low universal benefits. The US has been trying the combination of a neoliberal health care system with a not comprehensive LTC system. Sweden has a system of universal health care and LTC services system. Germany relies on a conservative social health and LTC insurance model with neoliberal design additions. The Czech universal LTC benefit and the central subsidizing of LTC institutions require a paradigmatic reform, to arrive at a reasonable social model.

#### The relationship between costs and quality in nonprot nursing homes

**Laura Di Giorgio**<sup>1</sup>, **Massimo Filippini**<sup>2</sup>, **Giuliano Masiero**<sup>3</sup>

<sup>1</sup>Institute for Health Metrics and Evaluation, University of Washington, Seattle; <sup>2</sup>University of Lugano; ETH Zurich, Switzerland; <sup>3</sup>University of Bergamo, Italy; University of Lugano, Switzerland

We investigate the relationship between costs and quality in nonprofit nursing homes, which represents a key issue in the present context of cost containment measures. In accordance with the economic theory, we estimate a three-inputs total cost function for nursing home services using data from 45 nursing homes in Southern Switzerland between 2006 and 2010. Quality is measured by means of clinical indicators regarding process and outcomes derived from the Minimum Data Set. We consider both composite and simple quality indicators. Conversely from many previous studies, we use panel data and control for unobserved heterogeneity. This allows to capture nursing homes specific features that may explain differences in structural quality or costs levels. We find evidence that poor levels of quality regarding outcome, as measured by the prevalence of severe pain and weight loss, lead to higher costs. Our results are robust to quality endogeneity concerns.

#### Does provision of long-term care lead to depreciation of self-care productivity?

**Theis Theisen**

University of Agder, Norway

We set up a theoretical model for how a long-term care-user responds to rationed long-term care-services. Similarly, we model rationing of service-provision by a public sector agency. The interaction between the agency and care-recipients is modeled as a non-cooperative game. We establish that a Nash-equilibrium exists, and argue that ample provision of long-term care-services may lead to a depreciation of care-recipients productivity in self-care. This theoretical result is supported by empirical evidence: The higher per capita income a municipality has, the higher is the share of its population that is low-productive in self-care, controlling for differences in age-structure, death-rates, etc.

11:30am - 1:00pm  
Room 254, Main Building

**Health 2: Health economics**  
Session Chair: **Lars Thiel**, Wuppertal University

**Price Elasticity of Soft Drink Tax and Obesity in Korea**

**Eunkyeong Lee**

Korea Institute of Public Finance, Korea, Republic of (South Korea)

This paper empirically examines the effects of taxing soft drinks on their consumption and obesity in Korea. I estimate price elasticities, using two data sets. Korea had imposed a 10% special consumption tax on soft drinks, but repealed it at the end of 1999. Applying OLS regression models to the Korean National Health and Nutrition Examination Survey—repeated cross section data of 1998 and 2001, I find that the decreased price of soft drinks does increase soda consumption, and the price elasticity is 0.34. Although soda consumption increased with reduced price, obesity prevalence did not change, because soda consumption replaced milk consumption. In addition, using data from a survey, I find that the price elasticity is 0.69 for adults and 1.18 for adolescents. My findings imply that soda tax may be more effective in preventing and controlling adolescents' obesity. Regarding regressivity, I have contrasting results between these two data sets.

**Illness and Health Satisfaction: The Role of Relative Comparisons**

**Lars Thiel**

Wuppertal University, Germany

This paper investigates the role of relative comparisons in health status for individual health satisfaction. Using longitudinal data from a representative German population survey, we estimate the effect of health-related positional concerns, social norms, and comparison processes on individual health satisfaction. We find that women tend to be more satisfied with their health if they belong to a reference group where physical health problems are more prevalent. Furthermore, higher levels of reference-group illness can temporarily alleviate the adverse impact of one's own illness on health satisfaction. This is also the first study to show the relevance of health-related upward and downward comparisons for health perception in the general population. The results suggest that both being healthier and sicker than the reference standard increases health satisfaction. This finding is consistent with social psychological models, where social comparisons are a viable means to cope with illnesses.

**Corruption, Decentralization and Public Expenditure in Economic Community of West African States (ECOWAS)**

**Adeniyi Jimmy Adedokun**

McPherson University, Seriki Sotayo, Ogun State, Nigeria, Nigeria

This study extends the empirical literature on the effect of corruption and decentralization on public expenditure by using a panel of the 15 countries in ECOWAS for the period of 1996 to 2010. The empirical analysis suggests that corruption does not matter in determining the level of aggregate public expenditure. However, corruption has a significant negative effect on health expenditure as a percentage of public expenditure. Findings reveal that corruption is felt differently in a non-federal (centralized) country compared to a federal (decentralized) country as regards health expenditure. It is further shown that decentralization lessens the negative effect of corruption on health expenditure. The study also establishes that decentralization has no significant effect on corruption. Finally, it is found that country size (population) has a significant positive relationship with corruption.

11:30am - 1:00pm  
A 14, Palazzo Rosso

**PolEcon 1: Corruption**  
Session Chair: **Handirk Von Ungern-Sternberg**, University of Freiburg

**The Regulation of Political Finance and Corruption**

**Avi Ben-Bassat, Momi Dahan**

Hebrew University, Israel

The current study provides a new theoretical framework that uncovers the mechanism through which the different features of regulation of political finance affect the level of corruption. It shows that the impact of both contribution limits and public funding are ambiguous. Using IDEA database on political finance regulations for 82 countries, we found that a contribution limits index increased corruption, after controlling for a standard list of explanatory variables. This result remains consistent employing an array of robustness checks intended to minimize the risk of a bias due to potential reverse causality and endogeneity. In contrast, the constructed indices of both public funding and transparency requirements tend to reduce corruption but these effects are rarely significant. Interestingly, we show that the mix of more generous public funding and less stringent regulations of private contributions is associated with lower corruption.

**Optimal sanctions for reoffenders: A question of wealth?**

**Handirk Von Ungern-Sternberg**

University of Freiburg, Germany

In a two-period standard law enforcement model individuals stay honest or breach the law. It is private information whether they offend deliberately or accidentally. When sanctions are limited by individual wealth constraints the law enforcer chooses an efficient sanction pattern and the level of monitoring. Should the enforcer implement an increasing, equal or rather decreasing penalty scheme for repeat offenders? Our results are twofold. Wealthy individuals can be deterred from deliberate crimes in both periods and punishment should be equal for every offense or decreasing if a minimum of law enforcement is exogenously given. Poor individuals cannot be fully deterred and escalating penalties are the only way to make criminal careers unattractive.

**Pay Me Now or Pay Me Later: Business Permit Applications, Waiting Time, and Bribery of Government Officials in Transition Economies**

**John Edwin Anderson**

University of Nebraska, United States of America

Obtaining permits to operate businesses in transition countries can be a substantial challenge. It is often the case that permits are limited by the government and subject to delays, required bribes, or corruption. The efficiency of the resource allocation mechanism is hindered and overall economic growth can be limited. In this paper I examine the extent to which the inability or difficulty involved in obtaining necessary permits are cited by businesses in transition economies as substantial impediments. Using the 2009 World Bank-EBRD Business Environment and Enterprise Performance Survey (BEEPS) data, I empirically model how firm characteristics and country characteristics affect the number of permits required, the time cost involved in obtaining permits, and the frequency with which firms ultimately pay bribes to government officials. Results reveal key factors that affect permits, waiting time, and bribery. Policy recommendations are suggested by the empirical results and are discussed.

11:30am - 1:00pm  
A 24, Palazzo Rosso

**PubEcon 1: Migration policy**  
Session Chair: **Alexander Kemnitz**, TU Dresden

**Return Migration and Illegal Immigration Control**

**Alexander Kemnitz<sup>1</sup>, Karin Mayr<sup>2</sup>**

<sup>1</sup>TU Dresden, Germany; <sup>2</sup>University of Vienna, Austria

This paper investigates the effectiveness of immigration control policies when the duration of stay of illegal immigrants is endogenous because they may return home voluntarily. It shows that return intentions matter, because then policies will typically affect not only the number of immigrants, but also their duration of stay. For example, we find that spending on border enforcement can potentially increase the total amount of illegal labor in the receiving country. Second, in-site inspections reduce illegal labor, unless there is an amnesty: then, they can have the opposite effect. Third, fines on apprehended migrants have only limited effect.

**Controlling Illegal Immigration: On the Scope for Cooperation with a Transit Country**

**Michael Michael<sup>1</sup>, Slobodan Djajic<sup>2</sup>**<sup>1</sup>University of Cyprus, Cyprus; <sup>2</sup>Graduate Institute, Geneva

We consider the implications of cooperation with respect to immigration control between a final destination country (D) and its poorer neighbor (T). Assuming that the latter serves as a transit country for undocumented immigrants, a key question is how much aid should D provide to T for the purpose of strengthening its immigration controls. The problem for T is to determine what proportion of aid to use strictly for immigration control rather than trying to meet other border-security objectives. We examine the Nash equilibrium values of the policy instruments of both countries and compare them with those which are optimal when international cooperation on immigration-control extends to maximization of joint welfare. We also consider a two-stage game in which D first decides on how much aid to transfer to T, with the latter subsequently choosing how to use it

**Political Economy of Asymmetric Aging, Migration and Fiscal Policy****Mehmet Serkan Tosun<sup>1,2,3</sup>**<sup>1</sup>University of Nevada, Reno, United States of America; <sup>2</sup>Institute for the Study of Labor (IZA); <sup>3</sup>Oxford Institute of Population Ageing

This paper uses an overlapping generations model with international labor mobility and a politically responsive fiscal policy to examine aging in developed and developing regions. Migrant workers change the political structure composed of young and elderly voters in both labor-receiving and labor-sending countries. Numerical simulations show that the developed region benefits more from international labor mobility through the contribution of migrant workers as laborers, savers and voters. The developing region experiences significant growth in all specifications but benefit more under international capital mobility. Restricting political participation of migrant workers in the developed region produces inferior growth results.

11:30am - 1:00pm  
A 23, Palazzo Rosso**PubEcon 2: Multinationals**Session Chair: **Mohammed Mardan**, University of Munich**An Economic Rationale for Controlled-Foreign-Corporation Rules****Andreas Haufler<sup>1</sup>, Mohammed Mardan<sup>1</sup>, Dirk Schindler<sup>2</sup>**<sup>1</sup>University of Munich, Germany; <sup>2</sup>Norwegian School of Economics

By introducing controlled-foreign-corporation (CFC) rules, the parent country of a multinational firm reserves the right to tax the income of the firm's foreign affiliates, if the tax rate in the affiliate's host country is below a specified threshold. In this paper, we identify the conditions under which binding CFC rules are part of the optimal tax mix chosen by governments. We show that this is the case when the financial structure of the multinational firm responds elastically to the introduction of the CFC rule, outweighing the negative effects on the firm's investment decision in the parent country, and on the profits of the home-owned firm in the parent country's welfare objective. We also show that if the government is mostly interested in maximizing tax revenues, a tighter CFC rule is associated with a tighter thin capitalization rule in its policy optimum.

**Measuring the Interdependence of Multinational Firms' Foreign Investments****Simon Bösenberg<sup>1</sup>, Peter Egger<sup>2</sup>, Valeria Merlo<sup>3</sup>, Georg Wamser<sup>4</sup>**<sup>1</sup>ETH Zürich; <sup>2</sup>ETH Zürich, CEPR, CESifo, GEP, OUCBT; <sup>3</sup>University of Tübingen, CESifo; <sup>4</sup>University of Tübingen, CESifo, NoCeT

Earlier work found evidence of a geographical linkages of aggregate foreign direct investment (FDI) across countries and country-pairs. We use data on the universe of German multinational enterprises (MNEs) to empirically explore how marginal investments at one foreign affiliate depend on investments at other affiliates within the same MNE. The empirical approach employs two channels or modes of cross-affiliate interdependence: mere geography (capturing horizontal linkages) and input-output relationships within or across industries (which capturing vertical linkages). We find evidence of a significant interdependence of investments within the firm. In the firm-level data at hand, vertical linkages appear to be more important than horizontal ones. Investments at one location tend to stimulate investments at other locations of the same MNE, particularly if input linkages are strong. The opposite seems to be true for output linkages. Beyond vertical linkages, mere geographical neighborliness matters only to a minor extent.

11:30am - 1:00pm  
A 21, Palazzo Rosso**Tax 1: Commodity taxes**Session Chair: **David R. Agrawal**, University of Georgia**The Internet as a Tax Haven?: The Effect of the Internet on Tax Competition****David R. Agrawal**

University of Georgia, United States of America

Firms with a physical presence in a consumer's state are required to collect state and local sales taxes on online sales; sales from remote vendors without a physical presence are not subject to sales tax collection. A large fraction of shoppers with Internet access will put downward pressure on tax rates as jurisdictions seek to reduce revenue leakage to a tax-free source; but, taxable online sales will put upward pressure on tax rates because the Internet acts as an effective means of enforcing sales tax collections. Exploiting tax discontinuities at state borders, I find that that an increase in the Internet penetration rate induces municipalities on the low-tax side of state borders to lower their local tax rates by more than municipalities on the high-tax side; this result is consistent with towns on the high-tax side having less brick-and-mortar stores and more consumers with easy non-Internet means of tax avoidance.

**Effects of a Sales Tax Increase on Firm Valuation: Free Cash Flow Approach to Individual Firm Data****Keiichi Kubota<sup>1</sup>, Hitoshi Takehara<sup>2</sup>**<sup>1</sup>Chuo University, Japan; <sup>2</sup>Waseda University, Japan

This paper investigates how firm values change by increased sales tax (and consumption-type VAT) rate and conduct analyses by applying plausible input values of tax rates including the corporate tax rate. Our computation is based on the residual income valuation model in accounting research, starting from the discounted free cash flow (DCF) model applied at the individual firm level. We interpolate future cash flow stream of firms from pro forma financial statements and find that an increase in sales tax rates decreases equity values for a majority of firms, but not necessarily all firms, while the sum of sales and corporate tax revenues increases for the government. The trade-off relationship of a sales tax rate hike and a corporate tax rate reduction is subtle, and the policy mix helps increase equity value of firms overall. The implications from the current study are important for both tax regulators and corporate financial managers.

**Tax Interdependence in the U.S. States****Claudio A. Agostini**

Universidad Adolfo Ibañez, Chile

State governments finance their expenditures with multiple tax instruments, so when collections from one source decline, they are typically compensated by greater revenues from other sources. This paper addresses the important question of the extent to which personal and corporate income taxes are used to compensate for sales tax fluctuations within the U.S. states.

The results show that a one percent decrease in the sales tax revenue per capita is associated with a 3 percent or a 0.9 percent increase in the corporate and personal income tax revenue per capita respectively. On average then, an exogenous reduction of \$4.5 in the sales tax revenue per capita is compensated, ceteris paribus, with an increase of either \$3.4 in the collections per capita from corporate taxes or \$3.6 in the ones from personal income taxes.

11:30am - 1:00pm  
A 31, Palazzo Rosso**Tax 2: Household taxation**Session Chair: **Helmuth Cremer**, Toulouse School of Economics**Tax Planning of Married Couples in East and West Germany: Are there Differences?****Katharina Erbe**

University Erlangen-Nuremberg, Germany

This study evaluates the tax planning behavior of East and West German married couples with regard to the allocation of tax schedules between the spouses. The paper focusses on the choice of "tax classes" (Steuerklassen), which can differ between spouses in the German tax law, depending on the decision of the partners. The analysis utilizes administrative data from the German income tax statistics for the year 2004. The results of an alternative specific conditional logit estimation indicate that West German couples are more likely to choose different tax schedules for the spouses than East Germans, and West Germans are more likely to allocate the advantageous tax schedule to the husband instead of the wife. These findings may be explained by differences in socialization of people due to different political regimes in Germany before 1990.

**Household bargaining and the design of couples' income taxation****Helmuth Cremer<sup>1</sup>, Jean-Marie Lozachmeur<sup>1</sup>, Dario Maldonado<sup>2</sup>, Kerstin Roeder<sup>3</sup>**<sup>1</sup>Toulouse School of Economics, France; <sup>2</sup>Universidad del Rosario, Bogota, Columbia; <sup>3</sup>LMU, Germany

The paper studies the design of couples' income taxation when decisions within the couple are made according to some bargaining scheme. Specifically, the couple maximizes a weighted sum of the spouses' utilities. In the first part of the paper, the spouses' bargaining weights (specific to each couple) are exogenously given. In the second part, these bargaining weights are endogenous, and depend on the spouses' respective contributions to total family income. The social welfare function is utilitarian. We show that the expression for a spouses' marginal income tax rate includes a "Pigouvian" (paternalistic) and an incentive term. With exogenous weights the Pigouvian term favors a marginal subsidy (tax) for the high-weight (low-weight) spouse, whose labor supply otherwise tends to be too low (high). In some cases both terms have the same sign and imply a positive marginal tax for the low-weight spouse and a negative one for the high-weight spouse.

#### Tax Treatment of Bequests when Donor Benefits do not Count

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

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

In this paper, we study the consequences for bequest taxation of giving less than full social weight to the benefit to donors. We analyze a simple model of parents and children with different skills where parents differ in their preferences for bequests. The government implements nonlinear income taxes on both parents and children as well as a linear inheritance tax, and gives differential linear bequest tax credits to donor parents based on income. The nonlinear income taxes take standard forms. The inheritance tax and bequest tax credits are of indeterminate absolute level and together determine the effective price of net bequests. This effective price plays both an externality-correcting and redistributive role. The optimal effective price will depend on the social weight given to donor benefits and the share of donors of a given skill type.

11:30am - 1:00pm  
Room 354, Main Building

#### Tax 3: Tax evasion I

Session Chair: **Denvil Duncan**, Indiana University

#### Circumstantial Risk: Impact of future tax evasion and labor supply opportunities on risk exposure

**Philipp Doerrenberg<sup>2</sup>, Denvil Duncan<sup>1</sup>, Christopher Zeppenfeld<sup>3</sup>**

<sup>1</sup>Indiana University, United States of America; <sup>2</sup>Center for European Economic Research; <sup>3</sup>University of Cologne

This paper examines whether risk-taking in a lottery depends on the opportunity to respond to the lottery outcome through additional labor effort and/or tax evasion. Previous empirical attempts to answer this question face identification issues due to self selection into jobs that facilitate tax evasion and labor effort flexibility. We address these identification issues using a laboratory experiment (N=180). Subjects have the opportunity to invest earned income in a lottery and, depending on randomly assigned treatment states, have the opportunity to respond to the lottery outcome through evasion and/or extra labor effort. We find strong evidence that ex-post access to labor opportunities reduces ex-ante risk willingness while access to tax evasion has no effect on risk behavior. We discuss possible explanations for this result based on the existing literature.

#### MARKET ENTRY, CORRUPTION AND TAX EVASION

**André Seidel, Thum Marcel**

TU-Dresden, Germany

Corruption and tax evasion are often mentioned as impediments to growth. In the economic literature, both phenomena are mostly treated separately. In this paper, we will argue that corruption and tax evasion have to be considered simultaneously. Bribing officials is illegal; therefore, bribes are usually paid from hidden accounts. Hence, financing bribes almost always goes along with tax evasion. We extend the literature on corruption by modeling the financing side of corruption. It turns out that fighting tax evasion can result in some unexpected side effects, if corrupt officials control the market entry of firms. There is a U-shaped relationship between the costs of tax evasion and the market entry of firms. Furthermore, a revenue maximizing government may not have an incentive to monitor the tax statement of firms too closely. Increasing the costs of tax evasion can decrease total tax revenues.

#### Government Consumption and the Allocation of Informal and Formal Work Time

**Marcelo Arbex<sup>1</sup>, Isabela Furtado<sup>2</sup>, Enlison Mattos<sup>3</sup>**

<sup>1</sup>University of Windsor; <sup>2</sup>Fundação Getulio Vargas, Brazil; <sup>3</sup>Fundação Getulio Vargas, Brazil

We explicitly model how households spend their time in the formal and informal sectors and evaluate how publicly provided goods with and without market substitutes affect time allocation. We sort goods into two groups according to whether or not the good has close substitutes being provided by the government.. We present empirical tests for this model using Brazilian data (PNAD -National Household Sample Survey) 2008 and 2009. Our results suggest that consumption of goods that present substitute in the private sector affect negatively formal labor hours of working. On the other hand, larger consumptions of publicly provided goods without substitutes are associated with an increase in formal labor market hours. This could suggest that individuals might value more exclusive government activities (and are willing to pay taxes for that).

11:30am - 1:00pm  
A 32, Palazzo Rosso

#### Tax 4: Tax policy

Session Chair: **Søren Bo Nielsen**, Copenhagen Business School

#### Learning and International Policy Division - The Case of Corporate Tax Policy

**Johannes Becker<sup>1</sup>, Ronald B. Davies<sup>2</sup>**

<sup>1</sup>University of Muenster, Germany; <sup>2</sup>University College Dublin, Ireland

A recent empirical literature has arisen documenting the response of one nation's policy choices, including tax, environmental, and labour policies, to those of others. This has been largely interpreted as evidence of competition, be it for mobile resources (like FDI, taxable book income, etc.) or yardstick. We present a third explanation based on learning. When countries' tax choices reflect private information about unobserved conditions, this encourages nations to update their policies not in order to retain investment or manipulate trade flows, but because the new information conveyed by overseas tax rates allows them to fine-tune their own policies. With this "social learning", countries converge on their optimal policies faster than in isolation. Furthermore, this convergence implies a pattern of policy convergence often attributed to competition for mobile resources.

#### Industrial foundations in the tax system

**Søren Bo Nielsen**

Copenhagen Business School, Denmark

This paper attempts to place industrial foundations (IFs; similar to trusts) in the tax system. Basic desires as to the structure and logic in the tax system imply clear consequences for the taxation of different types of income. However, the premise "people pay taxes" does not fit industrial foundations. So what to do? The paper explores the implications of treating IFs as high-income earners (wealthy individuals), draws the conclusion that in the current system, IFs are very leniently taxed relative to that benchmark, and recommends the usual conversion of tax expenditures to direct subsidies, if relevant. The paper does not take a stand in the difficult question as to whether such indirect subsidization is warranted.

#### Taxes and Mistakes: What's in a Sufficient Statistic?

**Daniel Reck**

University of Michigan, United States of America

What determines the efficiency cost of taxation in the presence of optimization errors? Employing recent results quantifying efficiency cost when consumers are subject to biases, this paper shows how budget adjustment rules, debiasing, and the source of bias affect efficiency cost. Budget adjustment rules govern how taxpayers meet their budget constraint in spite of misperceptions. Complete consideration of budget adjustment rules shows why simply detecting misperception of taxes is insufficient for welfare. An application to "ironing" — the confusion of average and marginal tax rates — leads to a clarification of prior welfare analysis of ironing. Finally, if consumers "debias" at sufficiently high stakes, policymakers' attempts to exploit biases to reduce inefficiency — like switching from high- to low-salience taxes — can actually *increase* inefficiency. Any cognitive costs of debiasing exacerbate this "curse of debiasing."

11:30am - 1:00pm  
A 33, Palazzo Rosso

#### Tax 5: Optimal taxation I

Session Chair: **Bas Jacobs**, Erasmus University Rotterdam

**Optimal Inefficient Production****Bas Jacobs**

Erasmus University Rotterdam, Netherlands

This paper develops a model of optimal non-linear income and commodity taxation to analyze the desirability of aggregate production efficiency. In contrast to Diamond and Mirrlees (1971) individuals are assumed to have different production technologies to transform inputs into outputs. It is then demonstrated that the production efficiency theorem breaks down. Output that is produced in sectors in which high- (low-) ability agents have a comparative advantage should be taxed at higher (lower) rates. In addition, output that is produced in sectors where labor demand is more elastic should be taxed relatively less. The Atkinson-Stiglitz theorem also breaks down as optimal commodity taxation is not uniform -- even if all individuals have identical preferences that are weakly separable. Policy implications of the breakdowns of the Diamond-Mirrlees and Atkinson-Stiglitz theorems for capital taxation, taxation of intermediate goods, trade policy, non-uniform sectoral taxation, public production and social cost-benefit analysis are discussed.

**The world is flat: Existing tax benefit systems approximate a linear one****Andreas Peichl**

University of Mannheim, Germany

Tax benefit systems around the world have evolved to quite complex entities resulting

in recurring calls for simplification -- including Flat Tax proposals. In this paper, I reveal a statistical regularity that has not been documented before: when taking into account all different taxes and benefits, the relationship between net tax payments and gross income is approximately linear in many countries. My empirical analysis is based on micro data for 26 European countries and the US. I show that a linear tax system explains roughly on average 94% of the variation in taxes. Besides income, non-income characteristics are much more important than non-linearities in income. This has important implications for optimal taxation both in terms of the use of tagging as well as the accordance with the equal-sacrifice principle.

**Why is the Long-run Capital Tax Zero? Reinterpreting the Chamley-Judd Result****Bas Jacobs<sup>1,2,3</sup>, Alexandra Victoria Rusu<sup>1</sup>**<sup>1</sup>Erasmus University Rotterdam; <sup>2</sup>Tinbergen Institute; <sup>3</sup>Netspar

Why is the optimal capital tax zero in the long run? This paper demonstrates that two standard intuitions do not apply. First, it is shown that the optimal capital income tax is zero both in partial and general equilibrium. Consequently, the intuition why the long-run capital tax is zero is neither because the entire capital tax burden is shifted to labor nor because of infinite tax distortions in finite time. Instead, this paper demonstrates that the steady state assumption forces all consumption demands to become linear in labor earnings. Hence, consumption Engel curves become linear in income in the steady state, irrespective of the utility function adopted. Completely standard optimal commodity-tax intuitions therefore explain why the optimal capital tax is zero.

11:30am - 1:00pm  
A 34, Palazzo Rosso

**Welfare 1: Pensions**Session Chair: **T. Scott Findley**, Utah State University**Have the elderly in England saved optimally for retirement?****Rowena Crawford<sup>1</sup>, Cormac O'Dea<sup>2</sup>**<sup>1</sup>Institute for Fiscal Studies; <sup>2</sup>Institute for Fiscal Studies, University College London

Using a model where households can save in either a safe asset or in an illiquid, tax-advantaged pension, we assess the extent to which those who recently reached the state pension age in the UK have saved optimally for retirement. The policy environment specified closely matches that prevailing in the UK. Using the model and administrative data linked with survey data from the English Longitudinal Study of Ageing, an optimal level of wealth is calculated for each household. This is compared to the levels of wealth observed in the data. Our results show that, for those born in the 1940s, the vast majority of households have wealth levels far greater than necessary to maintain their living standards into and through retirement.

**Time-Inconsistent Preferences and the Mandatory Saving Role of Social Security****T. Scott Findley, Frank N. Caliendo**

Utah State University, United States of America

We investigate the mandatory saving role of social security as a potential remedy to time-inconsistent saving behavior. Our model incorporates a generalized credit market that nests the extremes of missing credit markets and perfect credit markets, and it also includes the broad spectrum of possibilities in between. We prove that a fully-funded social security arrangement is irrelevant only at the knife edge of perfect credit markets. In other words, if there is a market imperfection of any degree then social security can improve the welfare of individuals with time-inconsistent preferences. We conclude that non-standard preferences provide a more compelling justification for the mandatory saving role of social security than previously supposed.

**Long term care and capital accumulation: the impact of the state, the market and the family****Chiara Canta<sup>1</sup>, Pierre Pestieau<sup>2</sup>, Emmanuel Thibault<sup>3</sup>**<sup>1</sup>Norwegian School of Economics; <sup>2</sup>Université de Liège, CORE, TSE; <sup>3</sup>Université de Perpignan, TSE

Both the amount devoted to long-term care (LTC) expenditures and its financing sources are likely to impact savings and capital accumulation and henceforth the pattern of growth. This paper studies how the joint interaction of the family, the market and the state influences capital accumulation in a society in which children assistance to dependent parents is triggered by a family norm. We find that, with a family norm in place, the dynamics of capital accumulation differ from the ones of a standard Diamond (1965) model. For instance, if the family help is sizably more productive than the other LTC financing sources, a pay-as-you-go social insurance might foster capital accumulation.

11:30am - 1:00pm  
A 12, Palazzo Rosso

**Welfare 2: Housing**Session Chair: **Daniel Da Mata**, IPEA**Is Social Housing Affordable?****Essi Helena Eerola<sup>1,2</sup>, Tuukka Saarimaa<sup>1</sup>**<sup>1</sup>VATT, Finland; <sup>2</sup>CESifo

Supply subsidies to owners of rental housing construction are often aimed at guaranteeing affordable housing for low-income households. This paper studies how much the tenants of the social housing units benefit from this subsidy. We use data on free market rental units and subsidized rental units in the city of Helsinki. Our data contain detailed information about the characteristics of the units, including their location. We employ semiparametric hedonic regression methods to predict rents for the subsidized units and use the results to calculate the subsidy the tenants obtain when occupying a subsidized unit instead of an otherwise similar free market rental unit. We find that on average the monthly subsidy per unit's square meters is 6.1 Euros in the units owned by the city of Helsinki. We also find that there is substantial heterogeneity in the amount of subsidy that different units receive.

**Housing Tenure Choice and House Ownership Decision in Korea****Younghoon Ro**

Korea Institute of Public Finance, Korea, Republic of (South Korea)

This study examines both the Korean household housing tenure choice and housing investment decision on the basis of Henderson and Ioannides (1983) theoretical framework using the 2010-2012 Korean Housing Finance Survey micro data.

The ordered probit regression was run over the 9,892 households' discrete choice of tenure and homeownership observations. The result shows that the latent measure of housing investment demand over consumption demand are all positive across 4 sub-tenure modes, suggesting the very strong investment motive among Korean households.

Main findings are as follows: ① With the borrowing-from-tenant feature of Chonseil rental mode so important to Korean landlord, investment demand for housing dominates consumption demand. ② Low-income quintile renters owning a house elsewhere make use of Chonseil institution for increasing leverage ratio and are vulnerable to the interest rate rise.

**The Effects of Fiscal Equalization on Housing Markets: Evidence from Brazil****Daniel Da Mata**

IPEA, Brazil

This paper seeks to understand how local government policies on housing stimulus and city growth are affected by intergovernmental transfers. Cities that receive a smaller amount of fiscal transfers may have more incentives to stimulate housing growth to increase their local revenue and, as a result, they end-up attracting more people and having a faster-growing housing sector. By contrast, the lack of fiscal windfalls may also generate lower provision of local public goods and generate emigration of current residents and a stagnated housing market. Quasi-



11:30am - 1:00pm  
A 13, Palazzo Rosso

**Welfare 3: Pay-As-You-Go**  
Session Chair: **Daniel Harenberg**, ETH Zurich

#### Increasing Life Expectancy and Pay-As-You-Go Pension Systems

**Markus Kneil**

Oesterreichische Nationalbank, Austria

In this paper I study how PAYG pension systems of the notional defined contribution type can be designed such that they remain financially stable in the presence of increasing life expectancy. For this to happen two crucial parameters must be set in an appropriate way. First, the remaining life expectancy has to be based on a cross-section measure and, second, the notional interest rate has to include a correction for labor force increases that are only due to rises in the retirement age which are necessary to "neutralize" the increase in life expectancy. It is shown that the self-stabilization is effective for various patterns of retirement behavior including a linearly rising, a constant, an optimally chosen and a stochastic retirement age.

#### Transfer paradox under a pay-as-you-go pension system

**Akihiko Kaneko<sup>2</sup>, Kojun Hamada<sup>3</sup>, Mitsuyoshi Yanagihara<sup>1</sup>**

<sup>1</sup>Nagoya University, Japan; <sup>2</sup>Waseda University; <sup>3</sup>Niigata University

This paper examines how the international transfer affects the welfare levels both of the donor with a higher marginal propensity to save and the recipient with a lower marginal propensity to save, both of which take a pay-as-you-go pension system in a one-sector overlapping generations model.

We show that the pay-as-you-go pension magnifies the welfare effect by the transfer: It fosters the deterioration of the donor and the recipient by the transfer when the world economy is dynamically efficient. This is because a pay-as-you-go pension hampers capital accumulation.

#### Social Security and the Interactions Between Aggregate and Idiosyncratic Risk

**Daniel Harenberg<sup>1</sup>, Alexander Ludwig<sup>2</sup>**

<sup>1</sup>ETH Zurich, Switzerland; <sup>2</sup>University of Cologne, Germany

We ask whether a PAYG-financed social security system is welfare improving in an economy with idiosyncratic and aggregate risk. We argue that interactions between the two risks are important for this question. One is a direct interaction in the form of a countercyclical variance of idiosyncratic income risk. The other indirectly emerges over a household's life-cycle because retirement savings contain the history of idiosyncratic and aggregate shocks. In our quantitative analysis, we find that introducing social security with a contribution rate of two percent leads to welfare gains of 2.2% of lifetime consumption in expectation, despite substantial crowding out of capital. This welfare gain stands in contrast to the welfare losses documented in the previous literature, which studies one risk in isolation. We show that jointly modeling both risks is crucial: 60% of the welfare benefits from insurance result from the interactions of risks.

2:00pm - 4:00pm  
A 34, Palazzo Rosso

**BusTax 2: Capital gains taxation**  
Session Chair: **Johannes Voget**, University of Mannheim

#### The role of Toeholds (and Capital Gain Taxes) for corporate Acquisition Strategies

**Federica Liberini, Antonio Russo, Michael Stimmelmayer**

ETH, Switzerland

Evidence suggests that corporate acquisitions often involve the establishment of a toehold in the target firm. We study the role of toeholds and the implications of capital gains taxation on acquisition strategies. We develop a theoretical model where firms decide on the steps to the complete acquisition as well as the method of payment (cash or equity). We find that greater uncertainty increases the likelihood of toeholds and that capital gains taxes (1) discourage cash payments if the acquisition involves a toehold and (2) reduce the likelihood of using toeholds. We test these predictions on a sample of acquisition contracts collected from the Thomson Financial SDC database.

#### Capital Gains Taxation and the Cost of Capital: Evidence from Unanticipated Cross-Border Transfers of Tax Bases

**Harry Huizinga<sup>1</sup>, Johannes Voget<sup>2</sup>, Wolf Wagner<sup>1</sup>**

<sup>1</sup>Tilburg University; <sup>2</sup>University of Mannheim

In a cross-border takeover, the tax base associated with future capital gains is transferred from target shareholders to acquirer shareholders. Cross-country differences in capital gains tax rates enable us to estimate the discount in target valuation on account of future capital gains. The estimation suggests that a one percentage point increase in the capital gains tax rate reduces the value of equity by 0.225. The implied average effective tax rate on capital gains is 7% and it raises the cost of capital by 5.3% of its no-tax level. This indicates that capital gains taxation is a significant cost to firms when issuing new equity.

#### Taxpayer Search for Information: Implications for Rational Attention

**Jeffrey Hoopes<sup>1</sup>, Daniel Reck<sup>2</sup>, Joel Slemrod<sup>2</sup>**

<sup>1</sup>Ohio State University; <sup>2</sup>University of Michigan

We examine data on capital-gains-tax-related information search to determine when and how taxpayers acquire information. We find seasonal increases in information search around tax deadlines, suggesting that taxpayers seek information to comply with tax law. Positive correlations between stock market activity and search as well as year-end spikes in information search on capital losses when the market performs poorly suggest that taxpayers seek information for tax planning purposes. Policy changes and news events cause information search. These data suggest that taxpayers are not always fully informed, but that rational attention and exogenous shocks to tax salience drive taxpayer information search.

#### Prevention, Hard and Soft Landing of Bubble

**Junmin Wan**

Fukuoka University, Japan, Japan

We show that capital gain tax, land value tax, counterspeculation option and limited period of land usage prevent the occurrence of land bubble. The government has following policies to solving the existing land bubble. Hard landing is that the government chooses financial or tax tools to make the bubble be crash, but the land market value after crash may be lower than that of fundamentals. Soft landing is that the government chooses land value added tax or capital gain tax to make the increasing bubble to be a constant value. Softly hard landing is that not financial but tax tool just as capital gain tax and land value tax are used to make the increasing bubble to be a constant value, and then the land market value ex post can be equal to that of fundamentals without both bubble and tax. Taiwan made the land bubble in the 1980s soft landing.

2:00pm - 4:00pm  
A 12, Palazzo Rosso

**Educ 1: Schooling and child care**  
Session Chair: **A. Abigail Payne**, McMaster University

#### Extracurricular educational programs and school readiness: Evidence from a quasi-experiment with preschool children

**Kerstin Schneider, Anna Makles**

University of Wuppertal, Germany

The paper adds to the literature on extracurricular early childhood education and child development by exploiting unique data on an educational project in Germany, the Junior University (JU). By utilizing a quasi-experimental study design we estimate the causal short-term effect of JU enrollment and show that attending JU significantly leads to higher school readiness, i.e. higher cognitive and non-cognitive abilities. Although the effect of attending JU on school readiness is quite small, the results are plausible and pass various robustness checks.

#### Pension and Child-care Policies in the Model of Human Capital and Public Education

**Masaya Yasuoka<sup>1</sup>, Atsushi Miyake<sup>2</sup>**

<sup>1</sup>Kwansei Gakuin University, Japan; <sup>2</sup>Kobe Gakuin University

This paper presents consideration of two child-care policies: one for child allowances and the other for a subsidy for private education investment. Furthermore, this paper presents an examination of how those child-care policies affect fertility and private education investment. Child allowances decrease the income growth rate and the subsidy for education investment increases income growth rate. However, child allowances can increase fertility if public education investment is small. The subsidy for education investment can increase fertility if public education investment is large. Moreover, this paper presents an examination of how child-care policies affect pension benefits and social

welfare. Even if child allowances increase fertility, pension benefits do not always increase. Moreover, child allowances can not increase social welfare if the future generation's utility is greatly discounted.

#### The difficult case of persuading women: experimental evidence from childcare

Vincenzo Galasso<sup>1</sup>, Paola Profeta<sup>2</sup>, Chiara Pronzato<sup>3</sup>, Francesco Billari<sup>4</sup>

<sup>1</sup>Bocconi University, Italy; <sup>2</sup>Bocconi University, Italy; <sup>3</sup>University of Turin; <sup>4</sup>Oxford University

We use a randomized survey experiment to expose a sample of Italian women to an informational treatment on the positive consequences of formal childcare on children future educational attainments. We find treated women to increase their intention to use formal childcare and to reduce their intended use of grandparents. Perhaps surprisingly, we also find treated women to reduce their intended labor supply. These results hide strong heterogeneous effects: low educated women intend to reduce labor supply (and take more child care upon themselves), high educated women intend to keep their role on the labor market. These findings are consistent with women responding to monetary incentive and/or having different preferences (or stereotypes) regarding maternal care.

#### Understanding the Gender Gap in Post-Secondary Schooling Participation: The Divergence between Girls and Boys Before and During High School

A. Abigail Payne

McMaster University, Canada

Only three decades ago women were substantially under-represented post-secondary institutions. Today the gender gap is reversed. Existing studies have argued that this gap can be traced to a growing disparity in high school academic performance of girls and boys. Since end-of-high-school grades play such a large role in moderating entry to PSE, even a modest gender gap can lead to big differences in post secondary opportunities available to female versus male students. We analyze the evolution of the gender gap, using a large administrative data set on two cohorts of students who attended publicly-funded high schools in Canada. We analyze the gender gap at each of three key stages through high school: (1) the first year of high school; (2) the last year of high school; and (3) entry to college and university. We show how the gaps at earlier stages contribute to the final gender gap in post-secondary participation.

2:00pm - 4:00pm  
Room 254, Main Building

#### Envir 1: Climate change

Session Chair: Michael Ahlheim, University of Hohenheim

#### The influence of ethnicity and culture on the valuation of environmental improvements - Results from a CVM study in Southwest China

Michael Ahlheim<sup>1</sup>, Tobias Börger<sup>2</sup>, Oliver Frör<sup>3</sup>

<sup>1</sup>University of Hohenheim, Germany; <sup>2</sup>Plymouth Marine Laboratory, England; <sup>3</sup>University of Koblenz- Landau

The provision of environmental goods by government creates social benefits

which might vary between citizen groups with different cultural and ethnic backgrounds. These differences as well as the overall extent of benefits should be analysed before the implementation of public projects in order to consider not only the efficiency aspects of such a project but also its distributional effects. In Southwest China we are facing a rapid deforestation for the development of rubber

cultivation and at the same time find an ethnically highly diverse population. This Contingent Valuation study tries to assess the short-term and long-term benefits

accruing from a public reforestation programme in Xishuangbanna and their distribution among different ethnic groups living in that region. The results show that different ethnic groups value short-term and future benefits of reforestation differently and that these differences can be explained by the different cultural and historical backgrounds of these ethnic groups.

#### Investment and Adaptation as Commitment Devices in Climate Politics

Clemens Heuson<sup>2</sup>, Wolfgang Peters<sup>1</sup>, Reimund Schwarze<sup>2</sup>, Anna-Katharina Topp<sup>1</sup>

<sup>1</sup>European University Viadrina Frankfurt (Oder), Germany; <sup>2</sup>Helmholtz Centre for Environmental Research Leipzig, Germany

The strategic roles of adaptation and technological investment in international climate politics have been analyzed within various approaches. What makes this paper unique is that we investigate the *combined* impact of adaptation and investment on global mitigation where countries either decide on mitigation before or after adaptation. Considering a purely non-cooperative, game-theoretic framework, we find that by investment countries commit to lower national contributions to the global public good of mitigation. Moreover, the sequencing of adaptation before mitigation reinforces this strategic effect of technological investments at least for symmetric countries. As a consequence, the subgame-perfect equilibrium yields a globally lower level of mitigation, and higher global costs of climate change when adaptation is decided before mitigation. Besides this theoretical contribution, the paper proposes some strategies to combat the unfortunate 'rush to adaptation' which can be currently observed in climate politics.

#### Actions and intentions to pay for environmental mitigation: Climate change concerns and the role of economic crisis

Christian Dienes

University of Wuppertal, Germany

We empirically investigate the association between climate change concern and individual's taken actions and intention to pay for climate change mitigation. We also emphasize the role of economic forces which are supposed to have moderating effects on these relationships. In particular, we interpret data examining the financial crisis in 2008 in a way that informs about such forces. Using data obtained from the Life in Transition Survey conducted in 35 countries in 2010, the results indicate a positive effect of climate change concern on intention to pay and on actions related to climate change mitigation. However, results also unveil that a moderating effect of economic forces can only be found with respect to taken actions but not for intentions to pay. Furthermore, results also point to the importance of the country's economic development.

#### Centralized and Decentralized Environmental Policies, Capital Mobility and Public Pollution Abatement

Nikos Tsakiris<sup>1</sup>, Panos Hatzipanayotou<sup>2</sup>, Michael Micahel<sup>3</sup>

<sup>1</sup>University of Ioannina; <sup>2</sup>Athens University of Economics and Business; <sup>3</sup>University of Cyprus

We build a two regions general equilibrium model with cross-border pollution and either international or inter-regional capital mobility. To control pollution each region uses public pollution abatement and issues either intra-regionally or inter-regionally tradable emission permits. We analyze the non-cooperative (decentralized) and cooperative (centralized) equilibrium level of emission permits, and we examine when and how cross-border pollution and the type of capital mobility affect these equilibrium policies. We provide the welfare ranking of the various cases and we investigate under what conditions the decentralized and centralized equilibrium policies lead to the same result and are equally efficient.

2:00pm - 4:00pm  
A 21, Palazzo Rosso

#### FiscPol 1: Public debt I

Session Chair: Alfons J. Weichenrieder, Goethe University Frankfurt

#### Race to the Debt Trap? Spatial Econometric Evidence on Debt in German Municipalities

Frank Fossen, Ronny Freier, Thorsten Martin

DIW Berlin, Germany

Through an intertemporal budget constraint, jurisdictions may gain advantages in tax and spending competition by 'competing' on debt. While the existing spatial econometric literature focuses on tax and spending competition, very little is known about spatial interaction via public debt. This paper estimates the spatial interdependence of public debt among German municipalities using a panel on municipalities in the two largest German states from 1999 to 2006. We find significant and robust interaction effects between debt of neighboring municipalities, which we compare to spatial tax and spending interactions. The results indicate that a municipality increases its per capita debt by 16-33 Euro as a reaction to an increase of 100 Euro in neighboring municipalities.

#### Trust in Government and Fiscal Adjustments

Dirk Bursian, Alfons J. Weichenrieder, Jochen Zimmer

Goethe University Frankfurt, Germany

The paper looks at the determinants of fiscal adjustments as reflected in the primary surplus of countries. Our conjecture is that governments will usually find it more attractive to pursue fiscal adjustments in a situation of relatively high growth, but based on a simple stylized model of government behavior the expectation is that mainly high trust governments will be in a position to defer consolidation to years with higher growth. Overall, our analysis of a panel of European countries provides support for this expectation. The difference in fiscal policies depending

on government trust levels may help explaining why better governed countries have been found to have less severe business cycles. It suggests that trust and credibility play an important role not only in monetary policy, but also in fiscal policy.

### The Track Record of Fiscal Forecasting in the EU

**Antonio Afonso**

ISEG, Portugal

We study the deviations between the budget balance ratio forecasts and the outcomes in the European Commission vintage forecasts for the period 1969-2011 and in the Portuguese official forecasts for the period 1977-2011. The European panel reveals significance (absence of significance) of investment (unemployment) deviations for the budget-to-GDP ratio. Countries with better fiscal rules present more favourable deviations. For Portugal, there is evidence of unfavourable errors about the budget balance in nominal currency in most years, which has been offset (totally or partially) by a favourable nominal GDP effect deviation.

### Austrian Public Debt Growth: A Public Choice Perspective

**Reinhard Neck<sup>1</sup>, Gottfried Haber<sup>2,1</sup>, Andrea Klinglmaier<sup>3</sup>**

<sup>1</sup>Alpen-Adria-Universität Klagenfurt, Austria; <sup>2</sup>Danube University Krems; <sup>3</sup>Institute for Advanced Studies

Sustainability of public deficit and debt in the long run has received much attention in the international political agenda. This paper analyses whether Austrian fiscal policies have been sustainable during the last five decades. Tests indicate that Austrian fiscal policies were sustainable from 1960 to 1974, while from 1975 on public debt grew much more rapidly. Starting in 1975, the rate of unemployment played a significant role in the sense of a counter-cyclical orientation of Austrian fiscal policy as part of the concept of "Austrokeynesianism". The development of public debt in Austria seems to be driven not primarily by ideology, but by structural causes and a shift of the budgetary policy paradigm. We find some empirical evidence that governments in Austria dominated solely by one party run higher deficits than coalitions of the two large parties or the two conservative parties. There are no indications of a political business cycle.

2:00pm - 4:00pm  
Room 354, Main Building

### FiscPol 2: Public debt II

Session Chair: **Tom Van Veen**, Maastricht University/Nijenrode Business University

#### The perils of sovereign default: Looking for the right haircut.

**Michel Guillard<sup>1</sup>, Hubert Kempf<sup>2</sup>**

<sup>1</sup>U. Evry; <sup>2</sup>ENS-Cachan, France

Abstract We address three issues related to sovereign default in a macroeconomic model: its cause, its frequency and the policy response after default. Taking into account a default rule, we distinguish the "default threshold" from the "unsustainability threshold". The former one corresponds to the upper limit to public debt beyond which it becomes unsustainable; the latter one to the level above which, absent any further shock, the dynamics of public debt leads to future default. The unsustainability threshold depends on the haircut applied on the existing amount of debt and specified by the default rule agreed by the contractors. We show that a "successful" default rule is such that the post-default risk premium is small enough and contributes to a decreasing debt-to-output ratio. This implies that the haircut on public debt must be sufficiently high.

### Money Overhang, Credit Overhang and Financial Imbalances in the Euro Area

**Tom Van Veen<sup>1</sup>, Clemens Kool<sup>2</sup>, Erik de Regt<sup>3</sup>**

<sup>1</sup>Maastricht University/Nijenrode Business University, Netherlands; <sup>2</sup>Utrecht School of Economics, Utrecht University, Netherlands; <sup>3</sup>School of Business and Economics, Maastricht University, Netherlands

This paper focusses on the relation between external imbalances and domestic money and credit growth in the euro area. We compute money and credit overhang both for the euro area as a whole and for individual member countries. Our results show that both aggregate money and credit overhang have trend-like increased since the early 2000s. The increase in money overhang has been rather evenly spread over the member states but the increase in credit overhang has been unevenly spread and has mainly occurred in the GIIP. We apply panel analysis to detect temporal patterns between the developments in money overhang, credit overhang and external indebtedness. Looking at the groups of GIPS countries in isolation, net debt flows do play a significant role to explain money and credit overhang.

### Holdout: Rogue behaviour or rational decision?

**Maximilian Stephan, Janine-Denise Temme**

University of Freiburg, Germany

The model presented here serves to illustrate that a holdout is by no means destructive investor behaviour but a rational investment decision. This investment decision is characterised by the mean-variance approach. We will demonstrate that at some point during the Greek (2012) and Argentine (2005) debt restructuring programs it was reasonable for the investor to hold out.

2:00pm - 4:00pm  
A 13, Palazzo Rosso

### FiscPol 3: Financing of public spending

Session Chair: **Marco Sahn**, Technische Universität München

#### Advance-Purchase Financing of Projects with Few Buyers

**Marco Sahn**

Technische Universität München, Germany

I investigate a simple model of advance-purchase contracts as a mode of financing costly projects. The analysis can easily be reinterpreted as a model of monopolistic provision of excludable public goods under private information. A monopolist has to meet some capital requirement in order to start production and sell the related good to a limited number of potential buyers who are privately informed about their willingness to pay. I find that advance-purchase arrangements allow to finance more costly projects than traditional funding sources. The monopolist is able to use advance-purchase surcharges as a price discrimination device. He will prefer advance-purchase financing over traditional funding if the capital requirement is sufficiently large. However, the discriminatory power is limited by the problem of free-riding which aggravates for an increasing number of potential buyers.

### Manipulating discretionary grants: Evidence from a German state

**Markus Reischmann**

ifo Institut, Germany

We investigate whether politicians manipulate intergovernmental grants. Our unique dataset contains information on discretionary consumption grants and discretionary investment grants in a German state over the period 2009-2011. The results show that the incumbent state government manipulated grants to the municipalities. Consumption grants are higher in municipalities where the election outcome is close (swing electorates). Investment grants are higher in state election constituencies where the vote share of the incumbent government is high. The grant pattern indicates that government ideology and tactical considerations influence the grant distribution.

### Geographical Allocation of Budget Adjustments under a Discretionary Executive

**Cecilia Rumi<sup>1</sup>, Walter Cont<sup>1,2</sup>**

<sup>1</sup>Universidad Nacional de La Plata, Argentine Republic; <sup>2</sup>FIEL, Argentine Republic

Taking the allocation of budget credits as given, this paper presents a model in which a central government adjusts and allocates accrued expenditures among provinces by minimizing a loss function that weights different jurisdictions in different fashion.

Using unexplored information of the Argentine federal budget process for the period 1997-2005, we test a simple condition on the allocation of budget adjustments among provinces and present evidence that these adjustments are correlated with (i) macro (and revenue) forecast errors incurred in the formulation phase of the budget process and (ii) the political alignment between the president and the provincial governors, suggesting a tactic redistribution of funds under the president's discretion.

2:00pm - 4:00pm  
A 14, Palazzo Rosso

### FiscPol 4: Decentralisation

Session Chair: **Willem Sas**, KU LEUVEN

#### Fiscal adjustment and balanced-budget-rules: Evidence from a Norwegian reform

**Arnt Ove Hopland, Lars-Erik Borge**

Norwegian School of Economics, Norway

In Norway, central control of local government borrowing and budgeting was relaxed in 2001. Prior to 2001 budgets and borrowing in all local governments had to be approved by the central government. Since 2001, control has been more selective and applies only to local governments that have violated the balanced-budget-rule. Local governments subject to control are placed in a register. This register receives large attention in the public debate and works as a "list of shame". We investigate possible disciplinary effects of the register. The main



hypothesis is that local governments that run deficits and thereby are in danger of being placed in the register will take actions to avoid this. An implication of this hypothesis is that the current deficit will be more affected by past deficits after the reform. The empirical analysis confirms a change in deficit dynamics.

#### Decentralization and progressive taxation

**Simon Berset, Mark Schelker**

University of Fribourg, Switzerland

While an important strand of the literature argues that decentralization might enhance allocative efficiency, standard theory of fiscal federalism also suggests negative redistributive effects. For this reason, centralized redistribution is proposed. The assignment of these two public sector functions, i.e. resource allocation at the local level and income redistribution at the upper level of government, is thus well established. Based on the joint direct taxation system in force in Switzerland – the separation of the decision to set the rate of progression at the cantonal level from the decision to set the 'level' of taxation at the municipal level – we investigate the influence of varying degrees of decentralization on the general 'level' as well as the degree of redistribution in the cantonal income tax schedules. Our empirical results indicate that more decentralized jurisdictions feature generally lower income taxes and impose higher rates of progression.

#### Fiscal decentralization and regional income in Korea

**Hyuna Kim**

Korea Institute of Public Finance, Korea, Republic of (South Korea)

Fiscal decentralization in Korea changed significantly since the 1991 push towards local autonomy; policy makers are still assessing the effects of this devolution. This paper attempts to examine how local fiscal share out of national expenditure (decentralization) affects the growth of regional income. It will show the relationship between fiscal decentralization and economic growth with more recent data and with careful attention to the effects of the components of fiscal structure. The empirical results support the ideas that the expansion of local expenditure and the degree of tax-benefit ratio may encourage the growth of regional income. These findings demonstrate the importance of the specification of the local expenditure structure variables, including transfer payments. In Korea, fiscal decentralization may be evaluated as an instrumental in economic growth.

#### Soft budget constraints in a federation: The effect of regional affiliation

**Willem Sas**

KU LEUVEN, Belgium

This paper revisits the soft budget constraint problem, pushing sub-central (state) borrowing to the limit in multi-tiered countries. Accounting for the institutional design and political practice common to many federations, bargaining and log-rolling are introduced to the analysis. In our intertemporal model, a federal legislature of locally elected representatives bargains on federal grants going to the states. As a result, voters will elect federal candidates in favour of looser state public spending than otherwise expected. 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. Lower relative per capita incomes even boost federal generosity and subsequent over-borrowing by the states.

2:00pm - 4:00pm  
A 11, Palazzo Rosso

#### Health 3: Health and retirement

Session Chair: **Barbara Wolfe**, University of Wisconsin-Madison

##### Health Status, Health Shocks and Asset Adequacy over Retirement Years

**Robert Haveman, Geoffrey Wallace, Barbara Wolfe**

University of Wisconsin-Madison, United States of America

In this paper, we explore the role of health and health changes or shocks on retiree's assets, focusing on both the likelihood of such shocks by demographic and socio-economic characteristics and the resulting changes in financial resources. Using a sample of retirees drawn from the US Health and Retirement Study (HRS), econometric techniques developed for dynamic panel data model with household effects, and a new and novel measure of health, we study several aspects of the impact of health and health change on the post-retirement evolution of wealth. Our measure of wealth is comprehensive including private pensions, savings, housing and public pensions. Our approach advances knowledge regarding the health related threats to economic independence for older citizens and suggests issues for public policy when considering the economic well-being of a nation's retired citizens.

##### Unhealthy retirement? Evidence of occupation heterogeneity

**Fabrizio Mazzonna**

University of Lugano, Switzerland

We investigate the causal effect of retirement on health and cognitive abilities by exploiting the variation between and within European countries in old age retirement rules. We show negative and significant effect of retirement on both health and cognitive abilities. We also show evidence of significant heterogeneity across occupational groups. In particular, the negative effect of retirement disappears and turn to be even positive for those working in very physically demanding jobs.

##### Retired but not withdrawn: Does Retirement Induce Participation in Social Activities ?

**Anne Laferrère**

INSEE, CREST, France

Being retired goes with more participation in some social activities such as volunteering or going to a club. To conclude about causality we use the longitudinal SHARE data and an IV strategy. Indeed we find that retiring can be the occasion to engage in a new social activity. More precisely, retirement increases volunteering, club and religious organization participation. It decreases training and has no effect on community involvement. Retiring later, relatively to the country norm, increases the intensity of volunteering. Health and health evolution play a crucial role in most countries. At a time of huge increase in the population of retirees it is important to access the value of their social participation. A tentative estimate translates into an output of about 5% of the value of pensions for the retirees of our 10 European countries.

##### Optimal Health and Pension Policy with Biologically Founded Human Ageing

**Volker Grossmann<sup>1</sup>, Holger Strulik<sup>2</sup>**

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

This paper integrates into public economics a biologically founded, stochastic process of individual ageing. The novel approach makes it possible to investigate theoretically and quantitatively the interaction between health and retirement policy for welfare and from a budgetary point of view. In particular, we derive the optimal design of the public insurance system behind the veil of ignorance and its implications for health inequality. Calibrating our model to Germany, we find that the health contribution rate and particularly health spending for the elderly may be considerably too low. Interestingly, spending more on health of the elderly is predicted to lead to more health inequality, however. Moreover, our results suggest that the statutory retirement age should not be raised despite the longer life expectancy generated by increased health spending.

2:00pm - 4:00pm  
A 22, Palazzo Rosso

#### PoIEcon 2: Electoral rules

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

##### Electoral thresholds and political outcomes: quasi-experimental evidence from a reform in Germany

**Thushyanthan Baskaran, Mariana Lopes da Fonseca**

Georg-August-Universität Göttingen, Germany

In 2001, the state parliament of the German federal state of Hesse abolished a 5 percent legal electoral threshold for local elections. This reform had a stronger effect on municipalities with larger councils because implicit electoral thresholds decrease with council size. Exploiting discontinuities in a state law that exogenously maps population to council size, we implement a difference in discontinuity design to study the political consequences of abolishing an electoral threshold. The dataset covers all 426 Hessian municipalities over the period 1989-2011. Our results suggest that the seat and vote shares of small parties increased in municipalities that were affected more strongly by the abolishment. In addition, municipalities exposed to stronger treatments reduced their council size, presumably to limit political competition.

##### How Local Electoral Systems Shape Intergovernmental Relationships: Some Empirical Evidence from Italian Municipalities

**Emanuele Bracco<sup>1</sup>, Alberto Brugnoli<sup>2</sup>**

<sup>1</sup>Lancaster University, United Kingdom; <sup>2</sup>Università di Bergamo

Different electoral systems offer very different incentives to parties and coalitions of voters, and demand different political strategies from potential candidates and chief executives. Italian mayors and city councils are elected through two different electoral systems according to the

locality's population, while municipalities' institutions and financial arrangements are otherwise identical. We exploit this institutional feature to test how this institutional heterogeneity affects the central-government decisions on grants, and the local government decisions on local taxes. Using an original dataset of Italian Municipalities for the period 1998-2008, we find evidence that the upper-tier government favours runoff-elected mayors, and that runoff-elected mayors levy lower taxes. We also show evidence that grants to larger municipalities have a stronger effect on electoral outcomes than the ones to smaller municipalities, further explaining the central government's behaviour.

### Do Electoral Rules Alter the Effect of Fiscal Transfers? Evidence from German Municipalities

**Marko Koethenbuenger<sup>1</sup>, Peter Egger<sup>2</sup>, Michael Smart<sup>3</sup>**

<sup>1</sup>ETH Zurich, KOF, Switzerland; <sup>2</sup>ETH Zurich, KOF, Switzerland; <sup>3</sup>University of Toronto, Canada

The paper empirically analyzes whether electoral rules make legislators differently responsive to changes in fiscal incentives. Key to the analysis are two unique reforms in the German state of Lower Saxony which changed (i) the municipal charter by replacing the council-manager system (featuring appointed mayors) by a mayor-council system (with directly-elected mayors) and (ii) the fiscal incentives inherent to the equalization system. We find that municipalities with appointed mayors react less strongly to changes in fiscal incentives. The change in municipal tax rates is three times smaller compared with a system of direct mayoral elections. We point to the different electoral incentives of mayors in the two systems to explain the result.

### The allocation of grants to Brussels municipalities: the effect of partisan alignment

**Geert Jennes**

KULeuven, Belgium

This paper is one of the first to our knowledge to investigate the politicisation of intergovernmental grants per individual party in a coalition, hence distinguishing between the effect of being a large versus the effect of being a small coalition partner. Rather surprisingly it finds that municipalities of the Brussels Region that are party-politically aligned with smaller parties in power at one or more of the Brussels municipalities' subsidising levels receive more discretionary grants than municipalities that are aligned with larger parties. This finding is obtained by instrumenting being in power at the municipal level with cases of being in power after the formation of an anti-coalition, i.e. a coalition from which the dominant party in a municipality has been excluded, and with 1st ever municipal coalition participation of a political party, both deemed exogenous to grants received.

2:00pm - 4:00pm  
A 23, Palazzo Rosso

### PolEcon 3: Elections

Session Chair: **Tilman Klumpp**, University of Alberta

### All for one? The common pool problem in single-district electoral politics

**Askill Harkjerr Halse<sup>1,2</sup>**

<sup>1</sup>University of Oslo, Norway; <sup>2</sup>Institute of Transport Economics, Oslo, Norway

Economic models of electoral democracies predict that elected representatives will promote decisions which serve the interests of their home constituencies. Empirically, it is however difficult to separate between the impact of the number of representatives and other factors which influence the allocation of spending across districts. I employ data on the representation of local districts in Norwegian regional councils, in which elections are held with the region as a whole as the election district. This enables us to use within-region variation in representation for estimation. I find that when the dominance of the large municipalities increases, spending on roads decreases, consistent with the hypothesis that large municipalities to a larger degree internalize the costs of local roads in terms of less available resources for other public services. I do not find differences in preferences can explain the finding.

### The Business of American Democracy: Citizens United, Independent Spending, and Elections

**Tilman Klumpp<sup>1</sup>, Hugo M. Mialon<sup>2</sup>, Michael A. Williams<sup>3</sup>**

<sup>1</sup>University of Alberta, Canada; <sup>2</sup>Emory University; <sup>3</sup>Competition Economics, LLC

In *Citizens United v. FEC* (2010), the U.S. Supreme Court ruled that restrictions on independent political expenditures by corporations and labor unions are unconstitutional. We analyze the effects of *Citizens United* on state election outcomes. We find that *Citizens United* is associated with an increase in Republican election probabilities in state House races of approximately four percentage points overall and ten or more percentage points in several states. We link these estimates to "on the ground" evidence of significant spending by corporations through channels enabled by *Citizens United*. We also explore the effects of *Citizens United* on candidate entry and direct contributions in state elections. Implications for national elections are discussed.

### Political Connections in Public Administration: Presidential Connections, Position Assignments and the Performance of Korean Public Prosecutors, 1992-2000

**Nowook Park**

Korea Institute of Public Finance, Korea, Republic of (South Korea)

Presidential elections in Korea in the eighties and nineties provide an opportunity to examine the role of political patronage in a newly formed democracy. We examine whether the bureaucratic reshuffling which accompanies presidential changes depends on the political connections of bureaucrats and whether bureaucratic reassignment is associated with changes in administrative performance. We use data on all public prosecutors in Korea between 1992-2000 and find that sharing birth and school environments with the incumbent president roughly doubled the odds of being assigned to a range of influential positions within the Public Prosecutor's Office. In the last of the three presidential regimes we consider, we also find that branch offices with high fractions of connected prosecutors performed poorly relative to other branches. Observations over multiple years allow us to control for unobservable characteristics of prosecutors and offices while estimating these effects of political patronage.

### Political alignment and intergovernmental transfers in parliamentary systems

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

<sup>1</sup>University of Konstanz, Germany; <sup>2</sup>University of Goettingen, Germany

This paper explores the causal relationship between state-municipality political alignment and the allocation of discretionary transfers. Our dataset covers municipalities from the German federal state of Hesse over the 1989-2010 period. Since Hessian municipalities have a parliamentary system, we use a perturbation procedure to classify close election outcomes. One of our methodological contributions is to adapt existing regression discontinuity designs to this particular setting. We find that the transfer policy of left-wing state governments favors aligned municipalities, while that of right-wing state governments favors unaligned municipalities. The explanation is that the right-wing state governments faced only few aligned municipalities during their tenure, while the left-wing governments had stronger local support. The fact that higher-level governments with weak support at the local level use transfers to "buy off" unaligned municipalities is a novel finding and suggests that prevailing theories on the political economy of intergovernmental transfers are incomplete.

2:00pm - 4:00pm  
A 24, Palazzo Rosso

### PubEcon 3: Public sector and development

Session Chair: **Björn Kauder**, ifo Institute

### Behavioral determinants of proclaimed support for public development aid

**Björn Kauder<sup>1</sup>, Niklas Potrafke<sup>1</sup>, Heinrich Ursprung<sup>2</sup>**

<sup>1</sup>Ifo Institute, Germany; <sup>2</sup>University of Konstanz, Germany

Proclaimed support for publicly provided development aid has been shown to depend on the individual's economic interest, socio-economic background, and political ideology. Using a representative survey of German university students, we confirm these results and find, in addition, that the respondent's psychological traits are also associated with their proclaimed attitudes towards development aid. In particular, we identify the locus of control and psychological traits that capture the respondents' susceptibility to making use of expressive rhetoric as important behavioral determinants. Our results indicate that partisans of all political ideologies use expressive rhetoric, at least when advocating public development aid.

### Tax Morale and Reciprocity. A Case Study from Vietnam

**Bjoern Jahnke**

Leibniz University Hannover, Germany

The intention of this paper is to analyze the impact of horizontal and vertical reciprocity on tax morale in Vietnam. To the knowledge of the author it is novel in the tax compliance literature to study both dimensions of reciprocity for a developing country. The analysis is based on a consumer survey in the City of Hue which combines and extends questions from previous versions of the European and the World Value Survey. The result of this study is that both



<sup>1</sup>University of Georgia, United States of America; <sup>2</sup>Syracuse University, United States of America

Local infrastructure and property taxation have been examined by scholars, the connection between them is not. This paper assembles a set of county level data and parcel data in the state of Georgia, employs two-stage method with instruments and GLS estimators, and connects local infrastructure and property tax in local public finance. We find: for rural and small urban counties, a one dollar increase of property tax revenue returns to residents 40 cents in local infrastructure expenditure; for medium and large urban counties it is 60 cents. Our results argue that the effect is much larger for rural parcels. The land price elasticity on infrastructure investment is 1.42 for rural parcels compared to 0.57 for urban parcels. Different from studies using data in different states, our analyses are in the same institutional and legal circumstances; we extend results from metro cities to a comparison between urban and rural counties.

#### Who's Taxing Whom? Empirical Evidence on Place-Based Policy Making when Industries are Agglomerated

**Marius Brühlhart<sup>1</sup>, Helen Simpson<sup>2</sup>**

<sup>1</sup>University of Lausanne, Switzerland; <sup>2</sup>University of Bristol, UK

We examine whether firms and governments take account of agglomeration economies as predicted by models of economic geography. Specifically, we study the generosity of governments in allocating plant-specific subsidies which aim to create jobs in economically lagging regions. Using administrative data on both grant applications and offers from a major place-based policy in Great Britain, we test the hypothesis that in the magnitude of their offers, governments internalise the fact that firms in more agglomerated industries should be less sensitive to financial inducements. We find that firms appear to some extent to internalise localisation benefits in their grant applications, and that government agencies reflect this in the generosity of their subsidy offers. However, we also find evidence that local government agencies structure their offers so as to try and preserve existing employment in more agglomerated industries in areas with a higher percentage of industry employment.

#### The determinants of local tax setting in the event of a tax system under reform: the case of Italian municipal property tax

**Alberto Zanardi<sup>1</sup>, Corrado Pollastri<sup>2</sup>**

<sup>1</sup>University of Bologna, Italy; <sup>2</sup>Istat, Italy

This paper investigates the determinants of tax setting by local governments in the case of a tax system under reform. Its specific focus is on Italy's municipal property tax which was radically reformed in 2012 as part of the fiscal consolidation package adopted by central government. Using a cross-sectional dataset of all Italian municipalities, this paper shows that the institutional aspects of the reform significantly affected municipalities' tax rate setting by municipalities, alongside other, more commonly analysed factors (socio-demographic, economic and political variables, and tax interactions). In particular, we find that the system prior to reform, the cuts in transfers by central government that accompanied the reform, and the uncertainties regarding the amount of tax revenue actually available, all played an important role in shaping local fiscal decisions.

**2:00pm - 4:00pm**  
**A 31, Palazzo Rosso**

#### Tax 8: Taxable income

Session Chair: **Michael Smart**, U of Toronto

#### The Devolution of the Revolution: Taxation of High Incomes in a Federation

**Michael Smart<sup>1</sup>, Kevin Milligan<sup>2</sup>**

<sup>1</sup>U of Toronto, Canada; <sup>2</sup>UBC, Canada

We develop a theory of cross-border income shifting in response to personal taxation, and examine its implications for the revenue potential and excess burden of personal taxes at the subnational level. We estimate the elasticity of tax avoidance and of cross-border tax base shifting using data on top income shares for Canadian provinces around a significant reform in subnational taxation in Canada. According to our estimates, shifting taxable income between provinces accounts for about two-thirds of total tax avoidance in response to unilateral provincial tax changes. Implications for design of federal income tax policies are discussed.

#### The long run effects of taxes and tax competition on top income shares: an empirical investigation

**Christian Frey, Christoph Gorgas, Christoph André Schaltegger**

University of Lucerne, Switzerland

We provide empirical evidence on the effect of tax policy on income concentration in Switzerland over the long run. Swiss cantons enjoy considerable autonomy with respect to taxation, which makes it possible to study the impact of the income tax burden as well as the influence of tax competition. Using panel regressions covering all Swiss cantons over the years from 1917 to 2009 we find the expected negative effect of the cantonal tax burden on the income share of top earners. Further we find evidence that tax competition is a driving force behind the income shares of the top 1 and 0.5 percent. Lower tax rates in neighbor cantons increase the competitive pressure and ceteris paribus reduce top income shares in the respective canton. For the very top incomes (the top 0.1 and 0.01 percent) tax competition seems to be an issue of the last 30 years.

#### The Fixed-Bracket Average Treatment Effect: A Constructive Alternative to LATE Analysis for Tax Policy

**Caroline E. Weber**

University of Oregon, United States of America

This paper analyzes the conditions under which it is possible to obtain a causal average treatment effect of a tax policy change, which I term the Fixed-Bracket Average Treatment Effect (FBATE). Local Average Treatment Effect (LATE) analysis does not apply in this context. FBATE identifies the average treatment effect for individuals with no incentive to switch tax brackets in response to a tax reform or other shock that affects the bracket in which an individual is located. The fact that the estimate is only informative for this subpopulation has important implications for the policy relevance of this parameter. The paper also shows that using an alternative definition of treatment relative to what is usually employed in the literature obtains a causal average treatment effect for a larger subpopulation under weaker assumptions. This paper has important implications for all policy analysis with simulated instruments.

**4:30pm - 5:30pm**

**Aula Magna, Main Building**

#### Keynote II: Wealth Inequality, Savings, and Bequest Motives

Session Chair: **Katherine Cuff**, McMaster University

Keynote Lecturer: **Maria Cristina de Nardi** (University College London, GB) (New lecture title, 12.8.14 - differs from book of abstracts!)

#### Wealth Inequality, Savings, and Bequest Motives

**Mariacristina De Nardi**

University College London, United Kingdom

Slides for Prof. Mariacristina De Nardi's plenary lecture

**5:30pm - 7:00pm**

**Aula Magna, Main Building**

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### Conference Agenda

Overview and details of the sessions of this conference. Please select a date or room to show only sessions at that day or location. Please select a single session for detailed view (with abstracts and downloads if available).

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### Session Overview

Date: Thursday, 21/Aug/2014

9:00am - 11:00am

A 14, Palazzo Rosso

#### BusTax 3: Tax treaties

Session Chair: **Arjan Lejour**, CPB Netherlands Bureau for Economic Policy Analysis

##### Tax treaties and the Allocation of Taxing Rights with Developing Countries

Dimitri Paolini<sup>2</sup>, Pasquale Pistone<sup>3</sup>, Giuseppe Pulina<sup>4</sup>, Martin Zagler<sup>1</sup><sup>1</sup>WU and Università del Piemonte Orientale, Italy; <sup>2</sup>Università Salsari; <sup>3</sup>Università Salerno; <sup>4</sup>University of Luxemburg

Worldwide income taxation in the country of residence is a legal dogma of international taxation. We question this dogma from the perspective of relations between developed and developing countries from a legal and economic perspective, and make a modern and fair proposal for tax treaties. We will show under which conditions a developing and a developed country will voluntarily sign a tax treaty where information is exchanged truthfully and whether they should share revenues. Moreover, we will demonstrate how the conclusion of a tax treaty can assist in the implementation of a tax audit system.

##### The Investment Effects of Tax treaties

**Arjan Lejour**

CPB Netherlands Bureau for Economic Policy Analysis, Netherlands, The

We examine the impact of bilateral and multilateral tax treaties on bilateral FDI stocks. First, we regressions of the effects of treaties on FDI based on an extensive database of all OECD countries from 1985 onwards. We use geographic and institutional instruments to correct for the endogeneity of tax treaties. In contrast to many papers we find that these treaties increase bilateral FDI significantly. The increase is about 13 to 20 percent for new treaties using a matching estimator. Second, we analyse the effects of treaty shopping on FDI using the number of tax treaties as proxy for the attractiveness of a country for establishing a holding. This indicator has a significant impact on FDI: twenty extra tax treaties increase bilateral FDI stocks by about 50 percent. Moreover, the EU parent subsidiary directive doubles bilateral FDI stocks.

##### The Effect of Moving to a Territorial Tax System on Profit Repatriations: Evidence from Japan

**Makoto Hasegawa<sup>1</sup>**, Kozo Kiyota<sup>2</sup><sup>1</sup>National Graduate Institute for Policy Studies (GRIPS), Japan; <sup>2</sup>Keio Economic Observatory, Keio University, Japan

The design of international tax policies, regarding whether and how to tax corporate incomes earned in foreign countries, has received a great deal of attention from policymakers and economists. Japan's worldwide tax system taxed foreign source income upon repatriation. To stimulate dividend repatriations from Japanese-owned foreign affiliates, Japan introduced a foreign dividend exemption in 2009 that exempts from home taxation dividends remitted by Japanese-owned foreign affiliates to their parent firms. This paper examines the effect of dividend exemption on profit repatriations by Japanese multinationals. We find no evidence that the dividend exemption system stimulated dividend repatriations of the typical foreign affiliate that had paid no dividends under the worldwide tax system. However, foreign affiliates with a large stock of retained earnings increased dividend payments more than other affiliates with the enactment of dividend exemption in 2009 while the increase in dividend payments was not associated with foreign tax rates.

##### International Fiscal Policy Coordination and GDP Comovement

**Nicholas Sly, Caroline Weber**

University of Oregon, United States of America

In this paper we demonstrate that international coordination on fiscal policy is an important avenue by which national economies become more integrated, thereby influencing the transmission of macroeconomic shocks between countries. Using a 30 year panel of quarterly GDP fluctuations from a broad set of countries, we find that coordinated changes in fiscal policy rules -- as indicated by the signing of a bilateral tax treaty -- increase business cycle comovement by 1/2 a standard deviation. Bilateral tax treaties also increase comovement in shocks to nations' GDP trends, demonstrating the permanent effects of coordination on fiscal policy rules. We estimate trend and business cycle components of nations' output series using an unobserved-components model in order to measure comovement between countries, and then estimate the impact of tax treaties using generalized estimating equations.

9:00am - 11:00am

A 11, Palazzo Rosso

#### BusTax 4: Financial transaction tax

Session Chair: **Timothy J. Goodspeed**, Hunter College and Graduate Center - CUNY

##### Dodging Robin Hood: Responses to France and Italy's Financial Transaction Taxes

**Maria Coelho**

University of California, Berkeley, United States of America

I look at the effect of the introduction of financial transaction taxes in equity markets in France and Italy in 2012 and 2013, respectively, on asset returns, trading volume and market volatility. Using two natural experiments in a difference-in-differences design, I identify bounds on elasticity estimates for three categories of avoidance channels: real substitution away from taxed assets, retiming (anticipation of transaction realizations and portfolio lock-in), and tax arbitrage (cross-platform and financial instrument shifting). I find very large responses on all margins, and am able to account for as much as 60% of the reported revenue shortfalls. By far the strongest behavioral response comes from high-frequency trading lock-in on regulated exchanges, with an extraordinarily high tax elasticity in the order of -9. The results shed light on previously neglected features of optimal FTT design.

##### Capital regulation and trade in banking services

**Andreas Haufler<sup>1</sup>**, Ian Wooton<sup>2</sup><sup>1</sup>University of Munich, Germany; <sup>2</sup>University of Strathclyde, U.K.

We set up a two-country model of trade in financial services where banks' overall loan volume is fixed by a capital requirement set in its home country. Competitive firms in each country produce goods in an uncertain productive environment and borrow either from the domestic or the foreign bank. Duopolistic banks can choose their levels of monitoring firms, and thus the level of risk-taking, but risks are ultimately borne by taxpayers in the bank's home country. Moreover, each bank chooses the share of lending allocated to domestic and to foreign firms, respectively.

In this setting we consider two types of financial integration. A reduction in the transaction costs of cross-border banking reduces aggregate output and increases risk-taking, thus harming consumers and taxpayers in both countries. In contrast, a reduction in the costs of screening foreign firms is likely to be beneficial for banks, consumers, and taxpayers alike.

##### The Taxation of Bilateral Trade with Endogenous Information

**Tri Vi Dang<sup>1</sup>**, Florian Morath<sup>2</sup>



<sup>1</sup>Columbia University; <sup>2</sup>Max Planck Institute for Tax Law and Public Finance, Germany

This paper analyzes the effects of taxation on trade in a decentralized market. We show that a tax on profits and a transaction tax have opposite implications for information acquisition and trade in the canonical take-it-and-leave-it offer bargaining model. A (marginal) increase of a transaction tax can lead to more information production and lower the probability of efficient trade. In contrast, a (marginal) increase of a profit tax can reduce the incentive to produce information and lower the probability of efficient trade. The taxation of profits can be efficiency enhancing when information is endogenous, while it has no effect when private information is exogenous.

### Economic Effects of the Taxation of Banks as Corporations: An Analysis in a Simple Industrial Organization Model

**Timothy J. Goodspeed**

Hunter College and Graduate Center - CUNY, United States of America

Taxation of the banking sector is an under-researched area in public economics. Our goal here is to partially fill this gap by analyzing different ways to tax banks as a corporation. As discussed in Freixas and Rochet (1999) Arrow-Debreu models (with perfect financial markets) are not very useful for analyzing the banking sector as banks become redundant and essentially serve no useful purpose in such models. Two distinct types of models have been developed to explain the usefulness of banks, one relying on incomplete information, and a second that emphasizes the role of banks in providing services such as the management of loans and deposits, associated with Monti (1972) and Klein (1971). We analyze three types of taxes (a tax on bank assets, a tax on bank deposits, and a tax on bank profits) in this model under different types of market structure.

9:00am - 11:00am  
Room 254, Main Building

### BusTax 5: Taxation and innovation

Session Chair: **Diego d'Andria**, Friedrich Schiller University of Jena

#### Taxation and incentives to innovate: a principal-agent approach

**Diego d'Andria**

Friedrich Schiller University of Jena, Germany

A principal-agent multitasking model is used to explore the effects of different tax schemes on innovation in a pure knowledge economy. Corporate taxes and labor income taxes can affect both the firm owner's and the employee's incentives to commit to innovative tasks, when the former compensates the latter (a manager, technical or R&D employee) by means of variable pay tied to measures of the company's success.

Results point to a complementary role between "patent box" tax incentives and reductions in the tax rate levied on profit sharing schemes. This complementarity holds, albeit with different relative importance for the two tax incentives, also with non-deductible labor costs, with a stochastic innovation value coupled with a risk-averse agent, and with multiple principals competing for talented agents.

#### The Global Effects of R&D Tax Incentives: Evidence from Micro-Data

**Martina Baumann, Bodo Knoll, Nadine Riedel**

University of Hohenheim, Germany

A growing empirical literature suggests that R&D tax incentives are instrumental in raising domestic R&D activity. In policy debates this finding is often interpreted to lend support to the notion that R&D tax incentives increase national welfare by internalizing knowledge spillovers to other agents in the economy and raising inefficiently low R&D levels. Our paper stresses that much of the observed increase in R&D activities in response to R&D tax incentives is in fact related to R&D activities that are attracted from abroad. Using unique panel data on R&D activities of European multinational firms, we find a positive impact of domestic R&D tax incentives on affiliates' R&D activity and a negative one for foreign tax incentives provided at other group locations. Quantitatively, the findings suggest that around 80% of the observed increase in R&D activities is related to relocations of R&D across country borders.

#### The Impact of Corporate Taxes on R&D and Patent Holdings

**Tobias Böhm, Nadine Riedel, Bodo Knoll**

University of Münster, Germany

We provide evidence that patenting strategies are exploited as a device to transfer income to low-tax jurisdictions. Using data on the population of corporate patent applications to the European Patent Office, we show that the location of R&D investment and patent ownership is geographically separated in a non-negligible number of cases. Moreover, our results suggest that this geographical split is partly motivated by tax considerations. We find that countries which levy low patent income taxes attract ownership of foreign-invented patents, especially those patents that have a high earnings potential. Analogously, inventor countries with high patent income tax rates observe ownership relocations of high-quality patents from their borders. Moreover, our results suggest that the probability for a patent to be owned by a party in a tax haven country significantly decreases if the inventor country has implemented controlled foreign company laws.

9:00am - 11:00am  
A 12, Palazzo Rosso

### Educ 2: Human capital and growth

Session Chair: **Alessandro Balestrino**, University of Pisa

#### The Trickle-Down Growth Hypothesis Revisited: Publicly Financed Higher Education versus Redistributive Transfers

**Sebastian Böhm<sup>1</sup>, Volker Grossmann<sup>2</sup>, Steger Thomas M.<sup>1</sup>**

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

This paper applies dynamic general equilibrium theory to shed light on two related research questions: (i) Does growth, triggered by an increase in public education expenditure on behalf of those with high learning ability, eventually trickle down to low-ability workers and serve them better than redistributive transfers? (ii) Does expanding education of wealthy, high-ability households inevitably raise inequality of earnings and income over time? Our results suggest that, in the shorter run, low-ability workers lose from expanding others' education. For an extensive period, they are better off from promoting redistributive transfers. In the longer run, however, low-skilled workers eventually benefit more from the education policy. It leads to sustained increases in the skill premium and an inverted U-shaped pattern of income inequality.

#### Endogenous Growth and Welfare Effects of Education Subsidies and Intergenerational Transfers

**Elena Del Rey<sup>1</sup>, Miguel-Angel Lopez-Garcia<sup>2</sup>**

<sup>1</sup>University of Girona; <sup>2</sup>Autonomous University of Barcelona

In this paper we investigate the welfare effects of both education subsidies and intergenerational transfers along an arbitrary, non-optimal balanced growth path in an overlapping generations model with both physical and human capital. An increase in the lump-sum tax paid by the working middle-aged translates into a lower accumulation of both physical and human capital (and thus a smaller growth rate). However, there can be non-monotonicities in the welfare effects of this policy change. An increase in the rate of education subsidy can either have a positive or a negative effect on the accumulation of both physical and human capital, but conditions that guarantee a clear-cut sign of the effect of education subsidies on welfare are derived. We also devote some attention to the asymmetric comparative dynamics of introducing pay-as-you go social security at the laissez faire equilibrium balanced growth path.

#### Intergenerational Income Path with Physical Transfers and Human Capital Investment

**Joongho Kook**

Yokohama City University, Japan

This paper investigates an intergenerational income path with physical transfers as well as human capital investment. The latter, or the investment in education from parent to child, increases child income indirectly through the enhancement of the earnings capacity of child. According to the result, increasing investment in education raises the steady state income only when the contribution to income of earnings capacity is highly appreciated. We examine the effects of investment in education on the steady state income by a simple simulation and provide some examples on how the intergenerational income path relates to income growth and distribution.

#### A normative justification of compulsory education

**Alessandro Balestrino<sup>1,2</sup>, Lisa Grazzini<sup>3</sup>, Annalisa Luporini<sup>3,2</sup>**

<sup>1</sup>University of Pisa, Italy; <sup>2</sup>CESifo, Germany; <sup>3</sup>University of Florence, Italy

Using a household production model of educational choices, we characterise a free market situation in which some agents ("high-wagers") educate their children full-time and spend a sizable amount of resources on them, while others ("low-wagers") educate them only partially. The free-market equilibrium is iniquitous. Public policy is thus called for, either for vertical or horizontal equity purposes (or both). Redistributive taxation may be counter-productive, especially in horizontal equity terms, as it forces some agents to move away from full-time education for their kids, and price subsidies are only moderately effective, since they only work on the intensive margin. A compulsory education package, financed by a redistributive tax system, may help achieve both types of equity. Redistributive taxation and compulsory education are therefore best seen as complementary policies.

9:00am - 11:00am  
A 21, Palazzo Rosso

FiscPol 5: Fiscal stimulus  
Session Chair: **Jan-Egbert Sturm**, ETH Zurich

#### On the Identification and Macroeconomic Effects of

**Christian Breuer**

ifo Institute, Germany

Empirical studies on the effects of fiscal adjustments apply different approaches to identify discretionary changes in fiscal policy. The results of one strand of literature suggest that the effects of fiscal adjustments on GDP are small or even positive, particularly for spending cuts (expansionary austerity). I compare the macroeconomic effects of fiscal adjustments using five different identification strategies for a panel of 30 OECD countries over the period 1980 to 2012 and show that the strategy chosen for identifying fiscal policy has a crucial impact on the estimated effects. My results suggest that large fiscal adjustments (both revenue and spending based) lead to economic contractions, after appropriate controlling for cyclical effects and one-off capital transfers. These findings indicate that a great deal of previous empirical research on fiscal adjustments and expansionary austerity is based on an incomplete measure of fiscal policy and needs to be reevaluated.

#### Investigating the Effect of Fiscal Stimulus under Zero Lower Bound in Japan

**Kazuki Hiraga<sup>1</sup>, Hiroshi Morita<sup>2</sup>**

<sup>1</sup>Tokai University, Japan; <sup>2</sup>Hitotsubashi University, Japan

This paper investigates the effect of fiscal stimulus under zero lower bound using Japanese data and Regime-Switching structural VAR model. Theoretically, effect of fiscal stimulus is propagated under zero lower bound, such as Christiano, Eichenbaum and Rebelo (2011), Eggertsson (2011) and Werning (2011). On the other hand, our result contradicts the theoretical prediction; i.e., fiscal multiplier in zero lower bound is smaller than that in positive interest rate regime. We obtain the results that the effects of government expenditure under the zero lower bound are not different from that under positive interest rate.

#### Substitution and income effects at the aggregate level: The effective budget constraint of the government and the flypaper effect

**Cristian F. Sepulveda**

Tulane University, United States of America

This paper explains the effects of a change in lump-sum (private) income on the tax and expenditure decisions of a government constrained by taxpayers' behavioral responses to taxation. We show that pure income effects at the individual level can lead to three distinguishable effects on government decisions at the aggregate level. Fiscal responses can be broken up into a "net substitution effect," associated with a change in the marginal cost of public funds, a "private income effect," associated with the increase in private consumption, and a "public income effect," which is equivalent to the effect of intergovernmental transfers. It follows that the effects of lump-sum income and intergovernmental transfers on fiscal decisions are generally different, but they are consistent with empirical findings of the literature on the flypaper effect.

#### It's Politics, Stupid! Political Constraints Determine Governments' Reactions to the Great Recession

**Fabian Gunzinger<sup>1</sup>, Jan-Egbert Sturm<sup>2</sup>**

<sup>1</sup>SNB, Switzerland; <sup>2</sup>KOF, ETH Zurich, Switzerland

Relying on a large sample of countries, this paper quantifies the effect of political constraints, as measured by legislative control by the incumbent government, on the size of fiscal stimulus packages that have been put in place as reaction to the Great Recession. The results suggest that on average, political constraints reduce the size of a country's fiscal stimulus packages by between 1.8 and 2.9 percentage points of GDP. This substantial effect is statistically significant and robust to a number of alternative dependent variables and specifications. The results are thus in line with the widely held, but never tested, perception that political reality limits the de facto application of discretionary fiscal policy as reaction to negative economic shocks.

9:00am - 11:00am  
A 13, Palazzo Rosso

FiscPol 6: Fiscal rules  
Session Chair: **Stuart K Landon**, University of Alberta

#### The Welfare and Stabilization Benefits of Fiscal Rules: Evidence Using Data for European Countries

**Stuart K Landon, Constance Smith**

University of Alberta, Canada

The growth of debt and deficits has led many jurisdictions to consider fiscal rules. While there is considerable interest in rules, there is little evidence on the benefits of different types of fiscal rules. We use Monte Carlo techniques to examine the impact on welfare of several types of government expenditure rules. The simulation employs an expected intertemporal welfare function and the parameters of a three-variable structural VAR estimated using data for European countries. The VAR captures the interaction effects between spending, output and revenue. Welfare depends on the level and volatility of both government spending and private consumption. Most, but not all, of the fiscal rules examined increase welfare. The best fiscal rules also reduce government expenditure volatility by about one third. A simple rule, where government expenditure is set equal to a one-period ahead forecast of current revenue, performs as well as a more complicated Swiss-type rule.

#### Incentive Effects of Fiscal Rules on the Finance Minister's Behaviour : Evidence from Revenue Projections in Swiss Cantons

**Florian Chatagny**

ETH Zurich, Switzerland

In the current paper we explore the effect of the ideology of the finance minister on tax revenue projection errors and assess how fiscal rules alter this relationship. We use a panel dataset on 26 Swiss cantons over the period 1980-2007 as well as a new dataset on 99 finance ministers at the cantonal level. We find a positive effect of ideology on projection errors in the sense that a left wing finance minister produces more conservative forecasts. We also find negative interaction effect between fiscal rules and ideology. These results suggest that left wing finance ministers need to curb deficits more in order to signal the same level of competence than a right wing finance minister. It also suggests that fiscal rules render the signal less informative and reduce the incentive for left wing finance ministers to be more conservative.

#### The Maywood effect: On the mechanics of fiscal rules efficiency

**Etienne Farvaque<sup>1</sup>, Martial Foucault<sup>2,3</sup>, Marcelin Joanis<sup>3,4</sup>**

<sup>1</sup>Université du Havre, France; <sup>2</sup>Sciences Po Paris, France; <sup>3</sup>CIRANO, Canada; <sup>4</sup>Polytechnique Montreal, Canada

This paper looks at the effectiveness of fiscal rules in the American states. A first contribution is to examine how efficient fiscal rules are in achieving fiscal discipline, using a newly defined stringency index that decomposes rules in their political vs. legal / procedural components. Then, a second contribution is to go deeper into the details of fiscal adjustments, by looking at the ways and means of fiscal rules. More particularly, we look at the expenditure programs that are most susceptible to suffer from cuts: we assess if and how deciders cut on, for example, education, wages or infrastructures. We finally assess which of the different revenue bases US states use to get their way out of a deficit. A third contribution is to explain the empirical features by a model of spending cuts and fiscal revenues adjustments.

#### The effects of fiscal rules on public finances and their identification

**Mustafa Yeter, Friedrich Heinemann**

ZEW, Germany

Many economic studies analyse the impact of fiscal rules and discuss their effectiveness in limiting excessive debt. A majority of these studies, however, neglects or only deals insufficiently with the potential issue of endogeneity. In this paper, we propose a novel identification approach which identifies the impact of fiscal rules free from effects driving simultaneously the fiscal performance and the existence or strength of rules at the country level. In its core, the approach relies on unexpected shocks in long-run growth in order to derive a setting free from unobserved fiscal preferences and to allow for causal interpretation.

9:00am - 11:00am  
Room 321, Main Building

Health 4: Health systems  
Session Chair: **Antti Moisio**, Government Institute for Economic Research

#### Consolidating bureaucratic supply? The case of Italian health care (1982-2008)

**Silvia Fedeli<sup>1</sup>, Leone Leonida<sup>2</sup>, Michele Santoni<sup>3</sup>**

<sup>1</sup>Sapienza - University of Rome, Italy; <sup>2</sup>Queen Mary University of London; <sup>3</sup>Università degli Studi di Milano

The Italian National Health Service is characterised by a bureaucratic structure organised at a regional level, financed by central government. We develop a two-stage model showing how the preferences of a regional government for health care services shape the regional organisation. The model shows that a regional government prefers the supply by one consolidated agency if it demands services perceived as complements,

whereas it prefers the supply by two independent agencies if it demands services perceived as substitutes. We use this prediction for empirical analysis of the organisation of the Italian health care system, with a regional-panel from 1982 to 2008. We show that the number of regional agencies, taken as a proxy for health care decentralisation, is affected by complementary/substitutable health care services demanded at a regional level. Our estimates show a positive(negative) correlation between the number of independent regional agencies and proxies of the government demand for substitutes(complements).

#### Break-Ups of Municipal Health Centre Federations: Expenditure and Efficiency Effects

**Antti Moisio, Mika Kortelainen, Kalevi Luoma**

Government Institute for Economic Research, Finland

Empirical evidence on economies of scale in healthcare is mostly based on the cost effects of hospital mergers. This paper approaches the economies of scale issue by analysing the break-ups of health centre federations. We use the difference-in-difference models to evaluate the break-up impacts on costs, outputs and efficiency of health centres in Finland between 1990 and 2003. To address potential non-random or endogenous treatment assignment we also utilize propensity score difference-in-difference approach. For cost efficiency estimation we use the non-parametric order-alpha method that is more suitable for small samples than the traditional efficiency estimators. Our results show that healthcare costs have grown considerably faster for the seceded health centres than for the similar non-seceded ones, while outputs have increased more for the former than for the latter group. Interestingly, we find the impact of break-ups to be insignificant on the productive efficiency of health centres.

#### Is Chinese government health expenditure ready for ageing society? - Evidence from Chinese healthcare equality data analysis

**Mike XU<sup>1,2</sup>, Diana QIU<sup>1,3</sup>**

<sup>1</sup>Hong Kong Institute of Health Economics, Hong Kong S.A.R. (China); <sup>2</sup>University of Bayreuth, Germany; <sup>3</sup>Hong Kong Polytechnic University, Hong Kong S.A.R. (China)

Chinese economic has growing rapidly for over 30 years but social welfare did not improve in same speed. Distinctions between different Chinese regions exist in healthcare government expenditure and this potential risk may lead to difficulties to Chinese healthcare universal coverage for sufficient health resource in era of ageing society. The paper aims to fill the blind points of previous researches focus on imbalance between elderly age group and government health expenditure in future simulation of ageing society, attend to provide reference for Chinese government in evaluating current status and proposed countermeasures. The results shows current Gini coefficient has already crossed threshold from relative equality (0.1495) to acceptable inequality (0.1856) in 2010. The situation will be further deteriorated in 2020, as Gini coefficient will skyrocketed to 0.3075 if Chinese government still maintain current configuration of health fund, and present arrangement will not be sustainable to encounter ageing society impact.

9:00am - 11:00am  
A 32, Palazzo Rosso

#### PolEcon 4: Voting behavior

Session Chair: **Klaas Staal**, University of Bonn

##### Lisbon and the Coherence of Council Votes

**Klaas Staal<sup>1</sup>, Marco Fantini<sup>2</sup>**

<sup>1</sup>University of Bonn, Germany; <sup>2</sup>DG-TAXUD, Belgium

This paper explores patterns of voting in the Council of the European Union. We analyze the full set of voting records for this institution between 2003 and 2009, i.e., under the Treaty of Nice. The relationship in voting behavior between two countries is measured by Spearman's rank correlation coefficients. Based on this relationship, we determine the support for the positions member states take in the Council. We evaluate whether these correlations can also be used as a prediction of future voting behavior, and we identify the effect the Treaty of Lisbon has on the support for the positions of the member states.

##### Voter Turnout and City Performance

**Anna Lo Prete, Federico Revelli**

University of Turin, Italy

We study the impact of exogenous variation in Italian municipal elections' voter turnout rates on city performance scores and elected mayors' indicators of valence. In a simple model of voluntary and costly expressive voting, we show that the cost of voting depresses voter turnout, yet can raise the chances of selecting higher valence candidates and thereby improve government performance. Empirically, we exploit exogenous variation in voter turnout rates through the 2000s due to the presence of concomitant regional, general and European parliament elections, and to weather conditions (rainfall) on the election day. The results from a number of specifications and quality of policy-making indicators consistently point to a negative causal impact of voter turnout rates on the performance of cities and the valence of mayors.

##### The Power of Religious Organizations in Human Decision Processes: Analyzing Voting Behavior

**Benno Torgler<sup>3</sup>, David Stadelmann<sup>2</sup>, Marco Portmann<sup>1</sup>**

<sup>1</sup>University of Fribourg, Switzerland; <sup>2</sup>University of Bayreuth, Germany; <sup>3</sup>Queensland University of Technology Brisbane, Australia

In Switzerland, two key church institutions – the Conference of Swiss Bishops (CSB) and the Federation of Protestant Churches (FPC) – make public recommendations on how to vote for certain referenda. We leverage this unique situation to directly measure religious organizations' power to shape human decision making. We employ an objective measure of voters' commitment to their religious organization to determine whether they are more likely to vote in line with this organization's recommendations. We find that voting recommendations do indeed matter, implying that even in a secularized world, religion plays a crucial role in voting decisions.

9:00am - 11:00am  
A 31, Palazzo Rosso

#### PubEcon 4: Intermunicipal cooperation and competition

Session Chair: **Sam Bucovetsky**, York University

##### Centralization and Incentive Compatibility

**Sam Bucovetsky**

York University, Canada

Direct central government provision may guarantee the incentive compatibility of the optimal allocation, under asymmetric information about the cost of the public output in different jurisdictions. To achieve this, a low "basic" level of public output should be provided uniformly to all jurisdictions, but only those jurisdictions identifying themselves as low-cost should be allowed to "top up" this basic level.

##### Interjurisdictional Competition with Adverse Selection

**Ruben Hernandez-Murillo**

Federal Reserve Bank of St. Louis, United States of America

We study the welfare consequences of imposing alternative regimes of competition between non-benevolent governments that compete for mobile firms which have private information on their degree of home bias.

We find that a system of coarser

policy instruments may improve welfare relative to competition with discretionary instruments, even when politicians are benevolent, because it reduces the costly rents that are granted to firms in equilibrium---at the cost of distorting output choices.

We also find that the gains from resorting to constitutional constraints are maximal when communities are identical, but if the extent of asymmetry between

locations (in terms of local market size or

technological complementarities) increases, the advantages of the constrained regime decrease and can be overturned.

##### Identifying the Effects of Grants on Local Policies in the Presence of Grant Endogeneity and Grant Effect Heterogeneity

**Michihito Ando**

Uppsala University, Sweden

This paper firstly examines how heterogeneous propensity of local governments for public services can induce endogenous allocation of intergovernmental grants and heterogeneous grant effects on local policies. Then I estimate local average grant effects on local policies with a regression kink (RK) design, exploiting a kinked grant formula in a Japanese fiscal equalization scheme. Results imply, for a subgroup of relatively affluent municipalities, 30–40 percents of one-to-one grant effect on total expenditure could be explained by effects on non-personnel education expenses. I also argue the locality of the RK estimand is preferable for valid theoretical interpretations of RK estimates.

9:00am - 11:00am

A 33, Palazzo Rosso

**PubEcon 5: Gender preferences**Session Chair: **Bjarne Strøm**, Norwegian University of Science and Technology**Spill-over effects of affirmative action: political representation and the power of the elderly****Audinga Baltrunaite<sup>1</sup>, Alessandra Casarico<sup>2</sup>, Paola Profeta<sup>2</sup>**<sup>1</sup>Institute for International Economic Studies (IIES) Stockholm University; <sup>2</sup>Universita Bocconi, Italy

There is evidence that age matters in politics. We study whether implementation of affirmative action policies on gender can generate additional effects on an alternative dimension of representation, namely, the age of politicians. We consider an Italian law which introduced gender quotas in candidate lists for local elections in 1993, and was abolished in 1995. As not all municipalities went through elections during this period, we can identify two groups of municipalities and use a Difference in differences estimation to analyze the effect of gender quotas on the age of elected politicians. We find that gender quotas are associated with election of politicians that are younger by more than one year. This effect is mainly due to the reduction in age of elected male politicians.

**The casual effects of voting franchise on fiscal and election outcomes****Bjarne Strøm<sup>1</sup>, Torberg Falch<sup>2</sup>, Per Tovmo<sup>3</sup>**<sup>1</sup>Norwegian University of Science and Technology, Norway; <sup>2</sup>Norwegian University of Science and Technology, Norway; <sup>3</sup>Norwegian University of Science and Technology, Norway

The paper studies the effects of removing socioeconomic and gender restrictions on voting on fiscal and election outcomes. We use national voting reforms in Norwegian local and national elections in the beginning of the 20th century and exploit that the bite of the reforms varied across municipalities to estimate causal effects. We find that extension of the voting franchise has small positive effects on some municipal expenditures, while the total spending effect is negative. Further, removing socioeconomic restrictions on female voting rights appears to have a negative effect. Finally, we find no robust evidence that removing socioeconomic restrictions on voting rights for women in parliamentary elections contributed to the growth of the Social democratic party.

**Is there a Gender Gap in Preferences for Public Spending? Evidence from Germany****Tina Hauszen**

Friedrich-Schiller-University of Jena, Germany

In several empirical contributions researchers have found a gender gap in preferences for public spending. This paper analyzes the persistence of these gender gaps when income differences between individuals are taken into consideration. Using survey data from the years 1996 and 2006 of German respondents, we show that gender gaps in preferences vanish when we control for individual income relative to the German median income. The larger this income ratio, the lower the preferences for social security (health care, retirement and unemployment) but the larger the preferences for education spending. Controlling for pseudo individual income (the actual available income if income is shared between all household members), gender gaps in health care and retirement reappear. This may reflect an insurance motive of women who fear to lose the benefits from sharing income within the household.

9:00am - 11:00am

A 22, Palazzo Rosso

**PubGoods 1: Theory**Session Chair: **Weifeng Liu**, Australian National University**Efficiency in public input provision in two asymmetric jurisdictions with imperfect labour markets****Holger Gillet<sup>1</sup>, Johannes Pauser<sup>2</sup>**<sup>1</sup>Ministry of Economics, Labour, Energy and Transport of Saarland, Germany; <sup>2</sup>Institute for Employment Research (IAB), Germany

This paper examines efficiency in public input provision in two large jurisdictions with imperfect labour markets. It analyses how equilibrium capital tax rates and public input provision levels differ between asymmetric jurisdictions that can strategically influence the interest rate on the common capital market in an international tax competition setting. In contrast to the scenario assuming competitive labour markets, the non-cooperative equilibrium is inefficient also when governments have capital and head taxes at disposal. As a source of both the distortion in the capital allocation between jurisdictions and the inefficiency in public input provision, which can be determined in at least one of the jurisdictions, we identify the governments' incentives to decrease unemployment, and a pecuniary externality in both jurisdictions. Efficiency in public input provision can be restored, however, if the set of fiscal instruments available for regional policy makers is extended by a labour tax.

**Pareto Improvements under Matching Mechanisms: General Preferences and An example****Weifeng Liu**

Australian National University, Australia

Matching mechanisms have been proposed to mitigate underprovision of public goods in voluntary contribution models. This paper investigates Pareto-improving equilibria under various matching schemes with two heterogeneous players. The paper finds that: First, this two-stage matching mechanism avoids free riding and each player has incentives to provide matching contributions because the matching player is better off while the matched is worse off. Second, given any income distribution within the interiority zone players can always implement small matching schemes to make them both better off. This finding is useful for cooperation, particularly in the context without complete information of global preferences or at the international level without a central government.

**Local infrastructures and externalities: does the size matter?****Massimiliano Ferraresi<sup>1</sup>, Umberto Galmarini<sup>2</sup>, Leonzio Rizzo<sup>1</sup>**<sup>1</sup>University of Ferrara, Italy; <sup>2</sup>University of Insubria, Italy

We setup a simple theoretical model where citizens consume two local public goods, one provided by their own jurisdiction and the other provided by the neighboring jurisdiction. Solving the model leads to a strategic interaction between the two jurisdictions whose sensitivity depends on the jurisdiction's

size. We test the model by using financial and socio-economic data of the Italian province of Trento. In particular we estimate determinants of infrastructure stock by explicitly introducing the spatial lag and exploring its differential impact according to the population size of the considered municipality. We find that jurisdictions positively react to an increase in infrastructure, but the effect tends to vanish after a given population threshold.

**Efficiency may Improve when Defectors Exist****Takako Fujiwara-Grave<sup>2</sup>, Masahiro Okuno-Fujiwara<sup>3</sup>, Nobue Suzuki<sup>1</sup>**<sup>1</sup>Komazawa University, Japan; <sup>2</sup>Keio University, Japan; <sup>3</sup>Musashino University, Japan

Voluntarily Separable Repeated Prisoner's Dilemma (Fujiwara-Greve

and Okuno-Fujiwara, 2009) has many kinds of equilibria. Focusing on monomorphic and bimorphic equilibria, we show that a bimorphic equilibrium consisting

of cooperators and defectors is most efficient, under a mild payoff condition. This

is a striking contrast to ordinary repeated Prisoner's Dilemma, where the symmetric

efficient payoff is achieved by the symmetric C-trigger equilibrium. Our

result indicates that behavioral diversity can be beneficial for the society, when

players are free to escape from personalized punishments.

9:00am - 11:00am

A 23, Palazzo Rosso

**Tax 9: Tax compliance**Session Chair: **Tim Lohse**, Berlin School of Economics and Law**Deception Choice and Audit Design — The Importance of Being Earnest****Kai A. Konrad<sup>1</sup>, Tim Lohse<sup>2,1</sup>, Salmal Qari<sup>1</sup>**<sup>1</sup>Max Planck Institute for Tax Law and Public Finance; <sup>2</sup>Berlin School of Economics and Law, Germany

We study deception choices and deception detection in a tax compliance experiment. We find large systematic differences in individual deception abilities. Tax payers are conscious about their own deception abilities. The empirical outcomes are in line with a theory suggesting that tax payers make their choices whether to underreport or report truthfully on the basis of their own deception ability. Tax payers with high deception ability are more likely to underreport. This selection effect is stronger if the fines for underreporting are higher. These results provide an (additional) reason why random audits are superior to audits based on discretionary choice.

#### **Committing-to-Rules and Compliance: Combined Laboratory and Field-Experimental Evidence**

**Ulrich Glogowsky, Tobias Cagala, Johannes Rincke**

University Erlangen-Nuremberg, Germany

Requesting commitments to rules is a widespread instrument to foster rule compliance via promoting individuals' intrinsic motivations. This paper combines a randomized field experiment on cheating in exams, laboratory experiments, and survey techniques to identify the effects of commitments and close monitoring on compliance decisions. We find evidence that individuals cheat when detection probabilities are low, but do not fully exploit cheating possibilities. This is evidence that individuals are intrinsically motivated to comply. Commitments, aiming at promoting intrinsic motivations, do not have any effect on cheating. Close monitoring, as strong external incentive, eliminates cheating.

#### **A Factorial Survey on the Inheritance Tax, Social Norms, and Social Justice**

**Friedemann Richter, Martin Abraham, Kerstin Lorek, Matthias Wrede**

FAU Erlangen-Nuremberg, Germany

This paper theoretically and empirically analyzes the acceptability of inheritance tax evasion. In the theoretical part, it builds on three different strands of literature from economics and sociology, namely on the tax evasion literature as initiated by the work of Becker (1968) and Allingham and Sandmo (1972), on recent developments in optimal taxation theory, and on the literature on social norms and institutions. To test the hypotheses, a Factorial Survey Design (Vignettes) was employed. It empirically confirms that closeness of kinship (protection of the family), asset type of inheritance and scope of evasion play a role for the acceptability of evasion. The results indicate that violating a compliance norm is to some extent justifiable if the underlying goal of the tax is not infringed by the evasion. In contrast, the norm violation is less acceptable, if the underlying goal is at stake.

9:00am - 11:00am  
A 24, Palazzo Rosso

#### **Tax 10: Taxation and distribution**

Session Chair: **Micheal Collins**, Nevin Economic Research Institute (NERI)

#### **Tax reform evaluation using status quo based welfare comparison: An application to a consumption based income tax**

**Tanja Kirm**

Universität Liechtenstein, Liechtenstein

A necessary condition of equitable reforms is the principle of "equal treatment to equals", which can be tested with the "status quo based social welfare analysis" (Bourguignon, 2011a). This paper reviews the restrictions of such an approach, by applying it on a consumption tax. The comparative analysis reveals, that the "status quo based" welfare analysis shows no dominance in terms of social welfare – which is in contrast to the result of the standard utilitarian approach. This finding confirms the importance to flank the standard utilitarian analysis with a "status quo based" welfare analysis. Additionally is the approach of Bourguignon (2011a) extended towards a dynamic framework, which allows studying long-term welfare effects.

#### **What makes personal income taxes progressive? A decomposition across European countries**

**Francesco Figari, Gerlinde Verbist**

University of Insubria, Italy

Over the last few years concern for income inequality has increased remarkably and the redistributive role played by taxation is of utmost importance in shaping the distribution of disposable income. We investigate the redistributive role of personal income taxes, with a focus on the EU-15 countries, using EUROMOD, the EU-wide tax-benefit model. In most of these countries the top tax rates have been reduced, as well as the number of tax bands. Hence, it is commonly thought that the progressivity of these taxes has been reduced. However, the effects on overall progressivity are less obvious than they may appear at first sight, as progressivity is not only determined by the bands and rate structure, but also by tax exemptions, tax allowances, deductions and credits. Cross-country comparison of the extent of progressivity and the ways in which this is obtained confirms the heterogeneity of the policy options adopted in different countries.

#### **Religious Heterogeneity and Fiscal Policy: Evidence from German Reunification**

**Ronny Freier<sup>1</sup>, Benny Geys<sup>2</sup>, Joshua Holm<sup>3</sup>**

<sup>1</sup>DIW Berlin Germany; <sup>2</sup>Oslo Business School; <sup>3</sup>Free University Brussels

Theoretical work based on social identity theory and in-group favoritism predicts

that increased population diversity (e.g., due to immigration) reduces support for redistributive

public policies. We add to the empirical literature testing this prediction

in three ways. First, rather than ethno-linguistic or racial heterogeneity, we analyze religious

diversity. Second, to account for the potential endogeneity of heterogeneity, we analyze an exogenous shock in diversity due to the German reunification. Finally, we assess shifts in local individuals' social identification after immigration took place, which, while untested in previous contributions, is a critical theoretical mechanism. Our results - using tax and spending decisions of 2031 Bavarian municipalities over the 1983-2005 period - indicate that Catholic municipalities

in particular significantly reduced their level of taxes and spending in response to

non-Catholic immigration. These effects arise only after the first post-reunification local

elections, suggesting a critical mediating role of the democratic process.

#### **Total Direct and Indirect Tax Contributions of Households in Ireland: Estimates and Policy Simulations**

**Micheal Collins**

Nevin Economic Research Institute (NERI), Ireland

Too often considerations of the taxation system are focused on income taxes, or income related taxes; a narrow perspective given the composition of taxation revenue. The most recent projections for Ireland's taxation revenue suggest that just over €50 billion will be collected across all taxation categories during 2014. While corporations and other businesses contribute a sizeable proportion of this sum the largest proportion flows from households.

Using data from the most recent Household Budget Survey, this paper estimates both the direct and indirect taxation contributions of households. The paper examines, singly and collectively, the direct and indirect tax paid by households across the income distribution, alongside the overall average household contributions. In establishing these estimates, the paper aims to provide a more comprehensive understanding of the distribution and composition of household tax contributions. Given this evidence, the paper also considers some implications for recent and possible future taxation policies.

9:00am - 11:00am  
Room 354, Main Building

#### **Welfare 4: Unemployment**

Session Chair: **Koen Caminada**, Leiden University

#### **The Political Economy of Labour Market Policies in Western and Eastern European countries**

**Koen Caminada, Kees Goudswaard, Olaf Van Vliet**

Department of Economics, Leiden University, The Netherlands

In this paper we investigate the cross-country variation in net unemployment benefit replacement ratios, both for Western and Eastern European countries. Unemployment benefits are an important indicator for labour market policies. We focus especially on the roles of partisan politics and of corporatism. These factors have been extensively studied in the literature, but hardly for Eastern European countries, because of a lack of data. For this reason we assembled a dataset for 34 welfare states (1971-2009).

We find a significant positive correlation between left-wing governments and unemployment protection for both Western and Eastern European countries, but this linkage is conditional on the economic situation. Corporatism is also positively and significantly related to unemployment benefits. Surprisingly, this relationship is relatively strong for the group of Eastern countries. Finally, within the EU we find a trend of convergence of unemployment benefit levels in the period 1990-2009.

#### **Employment protection and the market for innovations**

**Andreas Bastgen<sup>1</sup>, Christian Holzner<sup>2</sup>**

<sup>1</sup>Ludwig Maximilians Universität München, Germany; <sup>2</sup>Ifo Institute of Economic Research

Can employment protection increase innovations and decrease output at the same time? To answer this question we develop an equilibrium matching model with an imperfect labor and innovation market. We calibrate our model to match US labor and product market statistics. We



then take the calibrated model, switch on employment protection and show that our comparative static results are in line with the estimated impact of the adoption of wrongful dismissal laws in 13 US states on total factor productivity and innovation found in the literature. Our calibration results suggest that employment protection decreases output and total factor productivity despite the fact that it shifts economic activity towards innovator.

### Health, Incentives and Activation

Caroline Hall<sup>1</sup>, Kaisa Kotakorpi<sup>2</sup>, Linus Liljeberg<sup>1</sup>, Jukka Pirttilä<sup>3</sup>

<sup>1</sup>Institute for Labor Market Policy Evaluation (IFAU), Sweden; <sup>2</sup>University of Turku, Finland; <sup>3</sup>University of Tampere, Finland

We study individual reactions to a labour market programme targeted at young unemployed in Sweden in 2007. The programme involved both monetary incentives i.e. changes in the tax/transfer system designed to increase employment, as well as mandatory activation. We use a difference-in-difference strategy to analyse whether there are differences with respect to past health and school drop-out status in the way individuals reacted to the incentives and/or activation associated with the programme. Our hypothesis is that individuals who are in a difficult overall life situation may not be in a position to react to monetary incentives, and may be better helped by actual activation; whereas other individuals may respond to monetary incentives or the threat of activation (in which case activation programmes work more as a screening device). We use register data covering the entire Swedish population, including very detailed information on health.

9:00am - 11:00am  
A 34, Palazzo Rosso

### Welfare 5: Bequests, transfer and charity

Session Chair: Oscar Erixson, Research Institute of Industrial Economics

#### Estate division: Equal sharing as choice, social norm and legal requirement

Oscar Erixson<sup>1</sup>, Henry Ohlsson<sup>2</sup>

<sup>1</sup>Research Institute of Industrial Economics, Sweden; <sup>2</sup>Uppsala University, Uppsala Center for Fiscal Studies, Sweden

This paper studies to what extent parents divide their estates unequally between their children and the determinants of this decision. Using a new dataset based on the estate reports for the entire population of deceased Swedes for 2002-2004 we find that only 2–12 percent of the estates are unequally divided. The relatively low frequency of unequal sharing in Sweden compared to for example the US could potentially be explained by contextual factors such as the inheritance law, the transfer tax system, the income distribution, and the welfare state. Results from models with family fixed effects show that bequests are not used to compensate for income differences between children, suggesting that bequests are not guided by altruistic motives. Children who are likely to have provided services to the parent receive more than their siblings however. This suggests that, at least some bequests are guided by exchange motives.

#### Does Income Inequality Increase Charitable Giving?

A. Abigail Payne<sup>1</sup>, Justin Smith<sup>2</sup>

<sup>1</sup>McMaster University, Canada; <sup>2</sup>Wilfrid Laurier University, Canada

Do households react to changes in the distribution of income in their neighbourhoods and localities in their charitable donations? The theoretical prediction of the effects of income inequality on giving is unclear. We study how the change in income inequality as measured at the neighbourhood and locality (municipality) levels affects reported giving by households in Canada between 1991 and 2006. We find, on average, that an increase in inequality will increase charitable giving. These results, however, are sensitive to the geographic dispersion of low and high income households in neighbourhoods that form a locality. There is evidence to suggest that the effect on donations is smaller in areas with high levels of inequality at both the neighbourhood and locality levels.

#### Does Welfare Spending Provide Labor Supply Disincentives?: The Case of Korean Social Assistance Program and Social Insurance

Seng Eun Choi

Korea Institute of Public Finance, Korea, Republic of (South Korea)

The paper analyzes labor supply effect of income transfer payments, using the second to eleventh waves of the KLIPS data for the period of 1999 to 2008. The estimated results show that transfer payment, National Basic Livelihood Security System, pension, and social insurance discourage labor supply, reducing both labor participation rate and hours of labor. The magnitudes of the estimates indicate that Korean social assistance program provides larger work disincentive than social insurance. The findings imply that earnings disregard and welfare features of Korean social assistance program to provide work incentives are not enough to offset negative income and substitution effect of social assistance programs.

#### Rotten spouses, family transfers and public goods

Helmuth Cremer<sup>1</sup>, Kerstin Roeder<sup>2</sup>

<sup>1</sup>Toulouse School of Economics; <sup>2</sup>LMU, Munich, Germany

We show that once interfamily exchanges are considered, Becker's rotten kids mechanism has some remarkable implications that have gone hitherto unnoticed. It is not just beneficial for efficiency but it may have dramatic redistributive implications. Combined with a contribution game to a household public good, it may lead to an astonishing equalization of consumptions between spouses and parents, even when parents' wealth levels differ. The most striking results obtain when wages are equal and when parents' initial wealth levels are not too different. When wages are different but similar the outcome will be near efficient (and near egalitarian).

11:30am - 12:30pm  
Aula Magna, Main  
Building

### Keynote III: Financing Retirement: Where Have We Come From, and Where Do We Go from Here?

Session Chair: Monika Büttler, University of St. Gallen

Keynote Lecturer: Brigitte Madrian (Harvard University, USA)

#### Financing Retirement: Where Have We Come From, and Where Do We Go from Here?

Brigitte Madrian

Harvard University, United States of America

Slides for Prof. Brigitte Madrian's plenary lecture

Print View 



70th Annual Congress of the International Institute of Public Finance

## Redesigning the Welfare State for Aging Societies

August 20th – 23rd, 2014 - Lugano, Switzerland


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### Conference Agenda

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### Session Overview

Date: Friday, 22/Aug/2014

9:00am - 11:00am

A 11, Palazzo Rosso

Envir 2: Fuel taxes

Session Chair: **Massimo Filippini**, Università della Svizzera Italiana / ETH Zurich

#### Does the Swiss Car Market Reward Fuel Efficient Cars? Evidence from Hedonic Pricing Regressions, a Regression Discontinuity Design, and Matching

**Massimo Filippini<sup>1</sup>, Anna Alberini<sup>2</sup>, Markus Bareit<sup>3</sup>**
<sup>1</sup>Università della Svizzera Italiana / ETH Zurich, Switzerland; <sup>2</sup>University of Maryland; <sup>3</sup>ETH Zurich

To correct market failures due to the presence of negative externalities associated with energy consumption, governments have adopted a variety of policies, including taxes, subsidies, regulations and standards, and information-based policies such as labels. In 2003, Switzerland introduced a system of fuel economy labels, based on grades ranging from A to G, where is A best and G is worst. We use a rich dataset for Switzerland on cars and several methods (hedonic pricing regressions, regression discontinuity and a matching estimator) to answer three key research questions. First, what is the willingness to pay for fuel economy? Second, do Swiss drivers—or Swiss auto importers on their behalf—appear to do a one-to-one tradeoff between car purchase price and savings on fuel costs over the lifetime of the car? Third, does the label have an additional effect on price, all else the same, above and beyond that of fuel efficiency alone?

#### Fuel tax incidence in the EU: the interplay of ad valorem and specific taxation under imperfect competition

**Marina Di Giacomo, Massimiliano Piacenza, Francesco Scervini, Gilberto Turati**

Università di Torino, Italy

Fuel taxation is an important fiscal mechanism, that allows EU countries to implement transport policies, environmental actions, general energy policies, but also budget deficits control, agricultural and employment policies. The European heterogeneity in the structure and levels of taxes on mineral oils allows for the identification of the effects of fuel taxes on energy prices and public policies. Fuel taxation is an easy way for raising fiscal revenues. Its administrative costs are quite low, compliance costs for consumers are almost nil, and tax evasion is limited.

The aim of the paper is breaking new ground in understanding the characteristics of the European fuel taxation system, and how they influence consumers, producers and public bodies decisions. We expect to contribute to: 1) the fuel tax incidence literature; 2) the policy debate on the effects of fuel taxes as fiscal mechanisms able to sterilize oil price peaks and to reach environmental targets.

#### Effects of a mileage tax for trucks

**Simon Luechinger, Florian Roth**

University of Lucerne, Switzerland

We evaluate the effect of the introduction of a mileage tax for trucks in Switzerland in 2001 on traffic volume and externalities. Using a regression discontinuity design, we find a reduction in overall truck traffic of around 4-6%, no effects on car traffic and time-shifted placebos, suggestive evidence for traffic substitution towards rail, and negative effects on nitrogen oxides at curbside monitors. With the synthetic control method, we find insignificant short-run reductions in traffic density similar to the regressions discontinuity results, but substantially larger effects for some later years.

#### Terminal peak in nonrenewable resource use

**Hagen Schwerin**

ETH Zürich, Switzerland

Increased fossil energy use is explained by sustained investment in production capacity. A continued increase is predicted to halt at the latest date of investment in this technology without a technology revolution or climate policy---in the early 22nd to the early 23rd century depending on the resource endowment, before renewable energy fully provides energy of consumption goods. The fossil energy use peaks locally at the latest period before efficiently stabilizing atmospheric carbon dioxide---in the 2080's to limit the carbon dioxide amount by 720 ppmv, so that renewable energy production gradually increases in a medium time interval.

9:00am - 11:00am

A 23, Palazzo Rosso

FiscPol 7: Spending and growth

Session Chair: **Atsuyoshi Morozumi**, University of Nottingham

#### Government spending shocks, sovereign risk and the exchange rate regime

**Jasper Lukkezen, Dennis Bonam**

CPB, Netherlands, The

Keynesian theory predicts output responses upon a fiscal expansion in a small open economy to be larger under fixed than floating exchange rates. We analyse the effects of fiscal expansions using a New Keynesian model and find that the reverse holds in the presence of sovereign default risk. By raising sovereign risk, a fiscal expansion worsens private credit conditions and reduces consumption; these adverse effects are offset by an exchange rate depreciation and a rise in exports under a float, yet not under a peg. We find that output responses can even be negative when exchange rates are held fixed, suggesting the possibility of expansionary fiscal consolidations.

#### Public expenditure composition and economic growth: the role of government accountability

**Atsuyoshi Morozumi<sup>1</sup>, Francisco Veiga<sup>2</sup>**
<sup>1</sup>University of Nottingham, United Kingdom; <sup>2</sup>University of Minho, Portugal

This paper examines the role of institutions in the nexus between public spending and economic growth. Using a newly assembled dataset of 80 countries over the 1970-2010 period with disaggregated public spending, we show that only when institutions prompt governments to be accountable to the general public does the capital component of public spending significantly promote growth. Meanwhile, a rise in current spending does not show robust growth-promoting potential, regardless of the level of government accountability. Our interpretation of these findings is that, while capital spending innately has a larger growth-fostering effect than current spending, inefficiencies in the former type of spending, caused by officeholders' rent-seeking behavior under unaccountable governments, mitigate its fostering effect.

#### Fiscal Policy Sustainability: New Evidence from State-Varying Models with Non-linear Thresholds

**Gabriella Deborah Legrenzi<sup>1</sup>, Roberto de Santis<sup>2</sup>, Costas Milas<sup>3</sup>**
<sup>1</sup>Keele University, CESifo, Rimini Centre for Economic Analysis, United Kingdom; <sup>2</sup>European Central Bank, Fiscal Policy Division; <sup>3</sup>University of Liverpool

We introduce non-linear sustainability tests conditional on endogenously estimated state-varying thresholds. These thresholds vary with fiscal disequilibria, the economic cycle and financial market conditions.

Applied to fiscal policies pursued by the GIPS, our empirical results provide evidence of threshold behavior in terms of large versus small budgetary imbalances. Financial market pressure relaxes the deficit-to-GDP

threshold for adjustment in Ireland and Spain and reduces the threshold for Portugal.

#### Fiscal consolidation with a view on economic growth

**Carsten Colombier**

Federal Finance Administration, Switzerland

Crisis-ridden European countries such as Spain and Greece are struggling to make public finances sustainable. This has sparked a debate whether a thrift-based or a growth-based consolidations strategy should be adopted. So far the debate has revolved predominantly around the short-term effect of fiscal consolidation measures. This paper switches the focus on the long-run impact by estimating how the composition of government expenditure affects economic growth. Recently, empirical evidence is provided that fiscal consolidation is in all likelihood not successful if the growth rate of the economy is too low. This paper shows that, in particular, public expenditure on general government services, education, infrastructure and order and safety are growth-enhancing, whereas public expenditure on religion, culture and recreation is growth-retarding. Thus, policy-makers, which intend to implement austerity measures, should be aware of the fact that cutting productive public expenditure might run the risk to 'defeat' the consolidation strategy.

9:00am - 11:00am  
A 2, Palazzo Rosso

#### FiscPol 8: Fiscal policy and debt

Session Chair: **Estelle P. Dauchy**, New Economic School

#### Haircut Size, Haircut Type and the Probability of Serial Sovereign Debt Restructurings

**Christoph Schröder**

ZEW Mannheim

This paper complements the empirical literature on sovereign debt restructurings by analyzing potential drivers of the probability of near-term follow-up restructurings. I look for these drivers of serial restructurings in the restructurings themselves by asking whether there are certain features to debt renegotiation processes and outcomes that promote near-term follow-up restructurings. The probability of follow-up restructurings is estimated by means of survival models using a unique dataset that has kindly been provided by Cruces and Trebesch (2013). The main findings are that more comprehensive debt remissions decrease the probability of serial restructurings significantly. At the same time, it does, in fact, seem to be important for the probability of serial restructurings whether a haircut includes outright debt relief in terms of a cut in the face value of the debt contract or whether it includes "only" maturity extensions and/or interest rate reductions.

#### State Fiscal and Benefit Policies: A Tradeoff in Automatic Stabilization and Intergenerational Income Mobility

**Estelle P. Dauchy<sup>1</sup>, Nathan Seegert<sup>2</sup>**

<sup>1</sup>New Economic School, Russian Federation; <sup>2</sup>University of Utah, USA

We contrast the effectiveness of government interventions to dampen income shocks with their costs of distorting intergenerational income mobility. On the one hand, the occurrence of income and consumption shocks has increased over the past decades. On the other hand, individual's ability to smooth consumption against income shocks has decreased, and this has been linked to decreases in the insurance provided by the federal income tax. However, there is a tradeoff in government interventions meant to smooth income shocks. If income shocks are random then the tax and benefit system can provide insurance and increase welfare. However, it can also dampen income mobility both mechanically by dampening after-tax income growth and through distorting behavior. We use the PSID to decompose the impact of federal and state government interventions on the variance of intergenerational income and consumption into the part that captures insurance against income shocks and the part that distorts income mobility.

#### Debt brakes in the German states: Which governments take budget consolidation seriously?

**Niklas Potrafke, Marina Riem, Christoph Schinke**

ifo Institute, Germany

In 2009 a new law on German debt brakes was passed – state governments are not allowed to run structural deficits after 2020. We investigate whether government ideology influences how state governments consolidate budgets. The results show that leftwing governments ran higher structural deficits than rightwing governments between 2010 and 2013. When controlling for the debt level of the previous year the effect of government ideology, however, vanishes. We discuss constitutional issues related to how governments achieve balancing the budget.

#### A debt management rule, fertility, and growth

**Kazutoshi Miyazawa**

DOSHISHA UNIVERSITY, Japan

By introducing a debt management rule into an extended model of Lapan and Enders (1990), we analyze a dynamic relationship among public debt, fertility, and per capita income growth. The rule proposed is simple and intuitive: public debt newly issued is an increasing function of the government's primary balance. We show that the public debt-GDP ratio decreases monotonically toward zero, and both fertility rate and per capita income growth rate continue to increase in transition, if an initially indebted government adopts a tight management rule. Unfortunately, the long-run growth rate is low and the long-run fertility rate is high relative to the social optimal because of capital externality and a trade-off between fertility and bequests. The optimal policy requires an additional policy instrument, that is, a subsidy for bequests.

9:00am - 11:00am  
A 12, Palazzo Rosso

#### FiscPol 9: Public budget

Session Chair: **Stanley L. Winer**, Carleton University

#### Analysis of Creative Accounting and its Impacts on Governments' Financial Performance. The Case of the Swiss Cantons.

**Maxime Clémenceau, Nils Soguel**

University of Lausanne, Switzerland

This research aims at empirically identifying a possible impact of creative accounting on public deficits. More precisely, local governments may have incentives to resort to financial tricks in order to hide public surpluses. Such loopholes allow local governments to put expenditure under pressure and to justify higher tax rates than needed. In turn, these high tax rates should generate additional cash-flows that could be used in order to repay debt or to bail out cookie-jar reserves. Considering the second case, money accumulated into these reserves could be used in order to smooth fiscal balance over time. Using panel data relative to the 26 Swiss cantons over the period 1980 - 2012, we show that creative accounting operations allow to significantly decrease public deficits.

#### Bailouts and austerity

**Thushyanthan Baskaran**

University of Goettingen, Germany

This paper studies with disaggregated budget data how expenditures, revenues, and borrowing evolve in municipalities that receive bailouts. It asks, in particular, whether higher-level governments enforce austerity measures after bailing out indebted municipalities. The sample consists of 421 municipalities in the German federal state of Hesse over the 1997-2010 period. The results indicate that municipalities

cut personnel, construction, and social expenditures, increase tax revenues and property tax rates, and reduce deficits after they receive a bailout from the state government. The state government appears to be both able and willing to enforce austerity after granting a bailout.

#### On the political economy of tax revenue forecasts – Evidence from OECD countries

**Beate Jochimsen<sup>1,2</sup>, Robert Lehmann<sup>3</sup>**

<sup>1</sup>Berlin School of Economics and Law, Germany; <sup>2</sup>DIW; <sup>3</sup>ifo

Today, a solid budget serves as an important quality signal for the electorate. Therefore, politicians might face an incentive to influence tax revenue forecasts which are widely regarded as a key element for budget setups. Looking at the time period from 1996 to 2012, we systematically analyze whether national tax revenue forecasts in 18 OECD countries are biased through political distortions. Based on several theoretical approaches drawn from the theories of political economy, we test four hypotheses using dynamic panel estimation techniques. We find strong support for partisan politics. Left governments seem to overestimate tax revenues more than right ones to satisfy their electorate with additional expenditure plans. We find that more fragmented governments tend to produce more pessimistic tax revenue forecasts. One reason might be that at least one of the coalition members will be part of the next government, too. We do not find empirical evidence for political business cycles at all.

9:00am - 11:00am A 31, Palazzo Rosso	<p><b>Panel 1: GIZ Policy Panel: New rules for global taxation - Challenges for developing and developed countries</b>          Session Chair: <b>Matthias Witt</b>, GIZ          Panelists:          Michael Devereux, President of IIPF, Oxford University          Stefanie Knoth, German Federal Ministry of Finance (BMF)          Logan Wort, African Tax Administration Forum (ATAF)</p>
9:00am - 11:00am A 21, Palazzo Rosso	<p><b>Panel 2: Long term impacts of early events in life</b>          Session Chair: <b>Monika Büttler</b>, University of St. Gallen          Panelists:          James P. Smith, Rand Corporation          Christoph Weiss, European Investment Bank          Radim Bohacek, CERGE-EI</p>
9:00am - 11:00am A 13, Palazzo Rosso	<p><b>PolEcon 5: Political economy of redistribution</b>          Session Chair: <b>Eckhard Janeba</b>, University of Mannheim</p>

#### Trade and the Political Economy of Redistribution

**Eckhard Janeba<sup>1</sup>, Gonzague Vannoorenberghe<sup>2</sup>**

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

This paper analyzes the effects of trade liberalisation on the political support for policies that redistribute income between workers in different sectors. We allow for worker heterogeneity and imperfect mobility of workers across sectors, giving rise to a trade-off between redistribution and the inefficiency of the labor allocation. We compare two environments, autarky and small open economy, and present three main findings. First, redistributive policies are more likely to arise in a small open than in a closed economy. Second, if a redistributive policy is adopted in both situations, its nominal level is higher in autarky than in the small open economy. Third, even though voters choose redistributive policies with lower nominal value in open economies,

the actual extent of redistribution in equilibrium is larger in the open than in the closed economy. We discuss our results in the context of the debate about the effects of globalisation on government activity.

#### Government Ideology, Globalization, and Top Income Shares in OECD Countries

**Christoph Schinke**

Ifo Institute, Germany

I investigate how government ideology and globalization are associated with top income shares in 16 OECD countries over the period 1970 to 2010. I use the new World Top Incomes Database. Globalization is measured by the KOF index of globalization. The results show that the top 1% income share increased more under rightwing governments than under leftwing governments. The effect was stronger when globalization proceeded more rapidly.

#### Aging and Deflation from a Fiscal Perspective

**Hideki Konishi, Kojo Ueda**

Waseda University, Japan

Negative correlations between inflation and demographic aging have been observed across developed nations recently. To understand the phenomenon from a political economy perspective, we embed the fiscal theory of the price level into an overlapping-generations model. We suppose that short-lived governments successively choose income tax rates and bond issues, considering

political influence from existing generations and the expected policy responses of future governments. Our analysis reveals that the effects of aging depend on its causes; aging is deflationary

when caused by an unexpected increase in longevity, but is inflationary

when caused by a decline in the birth rate. Our analysis also sheds new light on the traditional debate about the burden of national debt. Because of price adjustment, the accumulation of government debt imposes no burden on future generations.

#### Redistributive Politics and Regional Economic Growth: Evidence from Japanese Prefectures

**Haruo Kondoh**

Seinan Gakuin University, Japan

This paper clarifies whether or not the distribution of interregional transfer or public investment to each region is affected by political incentives and whether or not its expenditure contributes to regional economic growth. I employ a simultaneous-equation approach in order to attain this aim, and estimate the regional distribution functions and the regional growth regression using a panel of Japanese prefectural level data for a period of 1980 to 2010. Empirical results show that, (1) regional distribution of public investment or interregional transfer is affected by political factors such as governing party (LDP)'s incentive to buy votes and pressure by a local interest group, (2) the funds distributed to each region do not necessarily contribute regional economic growth. This finding may indicate that funds distributed to each region are not beneficial for citizens and become a kind of transfers for rent-seekers.

9:00am - 11:00am  
A 32, Palazzo Rosso

#### PubEcon 6: Financial regulations

Session Chair: **Dharmika Dharmapala**, University of Illinois

#### The Costs and Benefits of Mandatory Securities Regulation: Evidence from Market Reactions to the JOBS Act of 2012

**Dharmika Dharmapala<sup>1</sup>, Vic Khanna<sup>2</sup>**

<sup>1</sup>University of Illinois, United States of America; <sup>2</sup>University of Michigan, United States of America

The effect of mandatory securities regulation on firm value has been a longstanding concern across law, economics and finance. In 2012, Congress enacted the Jumpstart Our Business Startups ("JOBS") Act, relaxing disclosure and compliance obligations for a new category of firms known as "emerging growth companies" (EGCs). The JOBS Act's definition of an EGC involved a limited degree of retroactivity, extending its application to firms that conducted initial public offerings (IPOs) between December 8, 2011 and April 5, 2012 (the day the bill became law). We analyze market reactions for EGCs that conducted IPOs after the cutoff date, relative to a control group of otherwise similar firms that conducted IPOs in the months preceding the cutoff date. We find positive and statistically significant abnormal returns for EGCs relative to the control firms. The baseline results imply a positive abnormal return of between 3% and 4%.

#### The persistent effects of regional policy: Evidence from the West-German Zonenrandgebiet

**Maximilian von Ehrlich<sup>1</sup>, Tobias Seidel<sup>2</sup>**

<sup>1</sup>University of Bern, Switzerland; <sup>2</sup>University of Duisburg-Essen

In this paper, we provide evidence on the contemporaneous and persistent effects of regional policy. We apply a quasi-experimental identification strategy exploiting the fact that municipalities in the West-German Zonenrandgebiet (ZRG) were eligible for substantial regional transfers during the Cold War. The ZRG was an approximately 40km-band adjacent to the Iron Curtain. Apart from determining transfer eligibility, this pure geographic threshold did not have any relevance. Using municipal data and satellite night light data, we find that the ZRG treatment led to an increase of income per km<sup>2</sup> of about 50 percent in 1986. Importantly, economic density remained high 16 years after the transfers had phased out. This speaks against unique equilibria determined by locational advantage, but rather strengthen market externalities as an important explanation for the spatial distribution of economic activity. We also examine several potential channels finding strong contemporaneous and persistent effects of transfers on population density and the business tax base.

#### Reaching the Poor in Nigeria: a Comparative Analysis of the Role of Microfinance Banks and Cooperatives

**Adeniyi Jimmy Adedokun<sup>1</sup>, Abiodun O. Folawewo<sup>2</sup>**

<sup>1</sup>McPherson University, Seriki Sotayo, Ogun State, Nigeria, Nigeria; <sup>2</sup>University of Ibadan, Ibadan, Oyo State, Nigeria

This study investigates the role of microfinance banks and cooperatives in reaching the poor in Nigeria. Analyses are carried out in relation to how accessible and effective the two institutions' loans are to people in the country, especially the poor. Findings reveal that loan accessibility of microfinance banks is not certain for the poor. Likewise, loan effectiveness analysis confirms that the poor do not stand a chance to benefit from loans by the banks, giving loan credibility criteria and interest rate charged. However, cooperatives' loans are more accessible to the poor; and loan effectiveness analysis reveals that the poor can grow above the poverty line over time, giving the credibility criteria and interest rate charged by cooperatives. The results of this study have important implication for poverty reduction, thereby recommends that cooperatives movement should be rekindled in Nigeria.

9:00am - 11:00am  
Room 254, Main Building

### PubGoods 2: Empirical analyses

Session Chair: **Janne Tuomas Tukiainen**, Government Institute for Economic Research

#### Elites and Bank-Based Finance - A political economy model on the emergence of financial systems

**Florian Buck**<sup>1</sup>, **Nikolaus Hildebrand**<sup>2</sup>

<sup>1</sup>Center for Economic Studies, Germany; <sup>2</sup>Ludwig Maximilians University

Why do some economic systems depend on bank financing while others rely on capital markets and bond financing? We propose a political economy model in which elites favor a bank-based system, which increases their rents due to reduced competition. If suffrage is restricted to the elite, this will result in poor corporate control rights and more reliance on banks that offer substitute mechanisms of corporate governance. The lack of legal rights in history triggers path dependencies and explains the dominance of banks until this day. We test the model's predictions by tracking the emergence and evolution of the bank-based financial system in Germany since the 19th century.

#### Common Pool Problems in Voluntary Municipal Mergers

**Tuukka Saarimaa**, **Janne Tukiainen**

Government Institute for Economic Research, Finland

We analyze free-riding behavior of Finnish municipalities prior to municipal mergers. The merger process creates a temporary common pool problem, which arises because of a delay from the initial merger decision to the actual merger. Using a difference-in-differences strategy, we find large responses to free-riding incentives. Consistent with the "law of 1/n", the stronger free-riding incentive a municipality faced the more it increased its per capita debt and used up its cash reserves. These funds were spent mostly on investment and current expenditures. The results are somewhat surprising because the mergers were agreed upon voluntarily.

#### Municipality amalgamation and free-ride behavior: Eligibility assessments for long-term care insurance in Japan

**Katsuyoshi Nakazawa**

Toyo University, Japan

Amalgamation offers municipalities an incentive to free ride when they can subrogate the load to a new municipality after amalgamation. Previous literature has clarified opportunistic behavior in local public bond issues. However, if the municipality does not have a leeway in policy decision making, it cannot adopt free-ride behavior. Although the Japanese long-term care insurance system has been so designed that the municipality does not have discretion in its working, doubts have been raised on this score. This study empirically considers this issue by examining municipality behavior before amalgamation. Difference-in-difference regression confirms a free-ride effect in the eligibility assessments for long-term care by the Japanese municipality. These results mean that the Japanese long-term care insurance system is not managed in accordance with the institutional design.

#### Cooperation and Trustworthiness in Repeated Interaction

**Tobias Cagala**, **Ulrich Glogowsky**, **Johannes Rincke**

Friedrich-Alexander-University Erlangen-Nürnberg, Germany

Cooperation in public good provision often depends on the trustworthiness of an administrator who may reduce contributors' returns from cooperation to her own benefit, and who herself may respond to the degree of cooperation among contributors. This paper analyses the interdependencies between cooperation and trustworthiness in a repeated game that replaces the mechanical public good administration in the Public Good Game with a human administrator. We present a new approach for visualizing conditional behavior in repeated sequential games. Our approach identifies the causal effects of cooperation on trustworthiness and vice versa by combining standard methods from time-series analysis with a design based identification strategy. We find that contributors and the administrator strongly respond to each other, resulting in cooperation and trustworthiness being strongly mutually interdependent. Furthermore, cooperation and trustworthiness are rather driven by changes in cooperation than by changes in trustworthiness.

#### Cultural Biases in Government Make-or-Buy Decisions: Evidence from a Regression Discontinuity Approach

**Laure Athias**<sup>1</sup>, **Pascal Wicht**<sup>2</sup>

<sup>1</sup>University of Lausanne, Switzerland; <sup>2</sup>University of Lausanne, Switzerland

What determines governments' decisions for the mode of provision of their services? While the theoretical and empirical literature on this issue has mostly considered technical dimensions (contractual and public choice aspects), this paper emphasizes the role of culture and quantifies it. We build a representative database for contracting choices of municipalities in Switzerland and exploit the discontinuity at the Swiss language border at identical actual set of policies and institutions to analyze the causal effect of culture on the choice of how public services are provided. We find that French-speaking border municipalities are 50% less likely to contract with the private sector than their German-speaking adjacent municipalities, and this effect prevails over the effect of any technical dimension. Systematic differences in the level of confidence in public administration and private companies potentially explain this discrepancy in private sector participation in public services provision.

9:00am - 11:00am  
A 14, Palazzo Rosso

### PubGoods 3: Provision of public goods

Session Chair: **Weifeng Liu**, Australian National University

#### Teams Punish Less

**Heike Auerswald**<sup>1</sup>, **Carsten Schmidt**<sup>1</sup>, **Marcel Thum**<sup>1</sup>, **Gaute Torsvik**<sup>2</sup>

<sup>1</sup>TU Dresden, Germany; <sup>2</sup>University of Bergen, Norway

Many decisions in politics and business are made by teams rather than by single individuals. In contrast, economic models typically assume an individual rational decision maker. A rapidly growing body of (experimental) literature investigates team decisions in different settings. We study team decisions in a public goods contribution game with a costly punishment option and compare it to the behavior of individuals in a laboratory experiment. We also consider different team decision-making rules (unanimity, majority). We find that teams contribute significantly more and punish less than individuals, regardless of the team decision rule. Overall, teams yield higher payoffs than individuals.

#### Local income tax competition and public goods with imperfect spillovers

**Florian Kuhlmei**, **Beat Hintermann**

University of Basel, Switzerland

We extend the literature on income tax competition by allowing for inter-jurisdictional spillovers of public goods, which so far have been analyzed in a completely separate framework. Introducing spillovers to the tax competition model adds an inefficiency of decentralization in the form of underprovision of the public good. At the same time, it reduces incentives for tax competition and the resulting income segregation, and thus increases welfare. This is due to a redistribution pathway absent in models based on purely local public goods: Richer jurisdictions effectively subsidize poorer jurisdictions in the form of transboundary spillovers. This effect increases with the degree of spillovers and is maximized for the case of a pure public good.

#### Global Public Goods and Coalitions under Matching Mechanisms

**Weifeng Liu**

Australian National University, Australia

Matching mechanisms have been proposed to mitigate underprovision of public goods in voluntary contribution models. This paper investigates coalition formation under matching mechanisms with multiple players who have the same preference but different incomes. Given income heterogeneity within a certain range, there always exist small matching rates which make all members in the coalition better off. However, given other players in the coalition players have incentives to take free rides and the matching coalition does not exist. If players value their reputation, they would stay in the coalition when the gain of free riding is lower than the reputation loss. Due to heterogeneity, the matching coalition faces trade-off between matching depth and breadth. The policy implication is that the matching rate can be flexibly set to compromise between cooperation depth and breadth and, more importantly, it may achieve Pareto-improving outcomes while avoiding international side payments.

#### The Dilemma of Delegating Search: Budgeting in the Public Employment Service

**Thomas Karl Kuhn**<sup>1</sup>, **John Addison**<sup>2</sup>, **Martin Altemeyer-Bartscher**<sup>3</sup>

<sup>1</sup>Chemnitz University of Technology, Germany; <sup>2</sup>Moore School of Business, University of South Carolina; <sup>3</sup>IWH Halle

We propose an incentive scheme to overcome moral hazard inherent in local job centers' search efforts. The key idea is to link future staff capacity in a job center to its past performance. Staff capacity and effort are complementary in the production of job matches. If the central



agency can commit to providing additional staff to reward a high match rate, caseworkers will respond when deciding on their supply of effort. They can then be incentivized to offer an efficient level of service even if effort is not verifiable and where, as in Germany, alternative (monetary) mechanisms are effectively precluded

9:00am - 11:00am  
A 24, Palazzo Rosso

**PubGoods 5: National security**  
Session Chair: **Vesa Kanniainen**, University of Helsinki

#### Cost escalation in defence and public administration

**Lars-Erik Borge<sup>1</sup>, Kjetil Hove<sup>2</sup>, Tobias Lillekvelland<sup>2</sup>, Per Per Tovmo<sup>1</sup>**

<sup>1</sup>Norwegian University of Science and Technology, Norway; <sup>2</sup>Norwegian Defence Research Establishment

The Baumol hypothesis predicts a steady increase in public sector costs relative to the private sector because of relatively slow productivity growth. In this paper we analyse cost escalation in the public sector with particular attention to defence using data from Norway. There is strong support for the Baumol hypothesis in the sense that relative public sector costs are non-stationary and growing over time. The Baumol effect is weaker in defence than in the rest of the public sector. Moreover, we investigate the determinants of the Baumol effect. It is evident that the Baumol effect is driven by GDP and political fragmentation, both in defence and in the rest of the public sector.

#### Security Gradient and National Defense – The Optimal Choice between a Draft Army and a Professional Army

**Vesa Kanniainen<sup>1</sup>, Staffan Ringbom<sup>2</sup>**

<sup>1</sup>University of Helsinki, Finland; <sup>2</sup>Hanken School of Economics

The earlier work on the optimal design of the national security has focused on the opportunity cost of the draft in terms of foregone human capital formation. The current paper introduces the national security into the welfare analysis missing from the earlier work. This creates a trade-off between the private goods and the security as a public good in the social cost-benefit analysis. There are three major results. First, and arising from the intergenerational interaction, it is optimal to introduce a pay to the young generation when in duty even by resorting to a distortive tax. Second, when optimizing the size of the army, the optimal choice between the draft army and the professional army depends on the risk class of the country. A security gradient arises. Third, the choice is linked to the size and the quality of the reserve generated by the two approaches.

#### International Security, Insurance, and Protection: Negative Spillovers within Alliances

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

<sup>1</sup>University of Tokyo; <sup>2</sup>University of California-Irvine; <sup>3</sup>Shimonoseki City University

Over forty years ago Olson and Zeckhauser (OZ, 1966) proposed a now famous theory of security alliances. We consider multiple pure public goods in the sense that "defense" or "security" is disaggregated into the more realistic categories of both self-insurance and self-protection at simultaneous optimization. We show how the two public goods are provided by the countries constituting an alliance critically influences what impacts a change in income of countries has. An increase in income in a country may reduce the provision of the public goods, and deteriorate the welfare of the allies. Such negative spillovers are more likely to occur than under the conventional standard due to goods inferiority. We show how economic growth and redistribution explore negative spillovers and other difficulties among allied countries managing insurance and protection at corner solutions although the nature of public goods itself should have positive spillovers.

#### Military Spending and Political Institutions: Lessons for the Iran's Sanctions

**Mohammad Reza Farzanegan<sup>1</sup>, Sajjad F. Dizaji<sup>2</sup>**

<sup>1</sup>Philipps-University of Marburg, CNMS, Germany; <sup>2</sup>Tarbiat Modares University, Tehran, Iran

This study examines how quality of political institutions affects the distribution of government budget and how development of government spending in major sections shapes the political institutions in Iran. This question has become especially important due to recent international sanctions, aiming to change the political behavior of Iran. We use the impulse response functions (IRF) and variance decomposition analysis (VDC) on the basis of Vector Autoregressive (VAR) model with annual data from 1960 to 2006. Our results show the importance of political institutions in patronage (e.g., military) and public goods provision spending (e.g., education and health) in Iran. The results imply that a shock in positive changes of democratic quality of institutions leads to negative and statistically significant response of military spending and positive and statistically significant response of education expenditures in short term.

9:00am - 11:00am  
A 33, Palazzo Rosso

**Tax 11: Property taxes**  
Session Chair: **Wolfram F. Richter**, TU Dortmund University

#### Assessment Limits and Timing of Real Estate Transactions

**Sebastien Bradley**

Drexel University, United States of America

Michigan homebuyers face large potential tax discontinuities for purchases made around January 1 and May 1 under the State's application of acquisition-value based assessment limits and principal residence (homestead) exemptions, respectively. Consistent with incentives, roughly 7.8 percent of sales concluded in the first 10 business days of January are thus attributable to timing responses. Underlying this effect is a willingness to stretch the number of days between offer acceptance and closing dates by an average of 2 to 2.3 business days per \$1000 of tax savings among transactions otherwise likely to close immediately prior to the end of the year. Results involving sale patterns around May 1 provide no evidence of transaction timing for purposes of ensuring homestead exemption eligibility. A small proportion of taxpayers hence appear to respond in a sophisticated manner to the timing incentives associated with near-immediate increases in taxable basis.

#### Property Taxes and Rental Housing

**Max Löffler<sup>1</sup>, Sebastian Siegloch<sup>2</sup>**

<sup>1</sup>ZEW and University of Cologne; <sup>2</sup>IZA

Although being heavily analyzed and discussed, there is neither a theoretical nor an empirical consensus on the incidence of the property tax. In this study, we exploit the advantageous institutional setting of property taxation in Germany to provide a clean estimate of the incidence. Using a panel of roughly 540 communities over up to 20 years, we show that landlords and tenants share the burden of property taxes. Although the property tax can legally be shifted to 100 % onto tenants, landlords bear parts of the tax burden depending on the construction type, the year of construction and the quality of the apartment. Moreover, tax shifting increases substantially over time.

#### The Tax Treatment of Housing: A Missed Opportunity?

**Erlend Eide Be**

Statistics Norway, Norway

In many countries the favorable tax treatment of housing has been reduced since the 1970s. This has not happened in Norway. In this paper I use a tax benefit model, and data covering the whole Norwegian population to impute the cost of treating owner-occupied housing as it is treated today. I look at tax revenue and distributional effects of changing the treatment of housing in the direct tax system: taxation as of other types of capital assets, i.e. a flat tax on income and tax valuation of 100 percent of market value.

I find that a tax reform increasing the taxation of housing increases the progressivity of the tax system, but only when imputed housing income is included in the measure of progressivity. The taxation of housing comes with an important age dimension, which must be acknowledged.

#### Property taxation, bounded rationality and housing prices

**Mikael Elinder<sup>1,2</sup>, Lovisa Persson<sup>1</sup>**

<sup>1</sup>Uppsala University, Sweden; <sup>2</sup>The Research Institute of Industrial Economics (IFN)

In 2008, the Swedish property tax was reformed through the introduction of a cap on yearly tax liabilities. A large portion of properties experienced a large proportional decrease in the tax rate. At the time when the reform was announced, politicians and economists projected - in line with tax capitalization theory - that the tax decrease would lead to significant increases in the house price level. The results of the empirical analysis in this paper runs counter to these projections, as we find no significant price increases for houses that received a generous tax reduction, compared with houses that received a more modest reduction. We explore various theories of bounded rationality in order to explain why house buyers fail to take the tax decrease into account when settling on a price.

9:00am - 11:00am  
Room 321, Main Building

**Tax 12: Progressive taxation**  
Session Chair: **Seppo Kari**, VATT

**Mobility and Progressive Taxation****Marcus Roller, Kurt Schmidheiny**

University of Basel, Switzerland

In fiscally decentralised countries with varying local tax schedules, the effective tax progressivity depends on the distribution of taxpayers across local jurisdiction as well as on local income distributions. The latter might differ systematically because high income households can partly or fully avoid high tax rates by sorting into low tax locations.

This paper develops an empirical approach in order to quantify the effective tax progressivity in a highly fiscally decentralised country - Switzerland - taking the relative size of jurisdictions and the actually observed income sorting into account. Exploiting data on the universe of Swiss taxpayers, we find that rich households encounter significantly lower tax rates and lower progressivity than in the benchmark case that does not take the income sorting into account. Furthermore, we find suggestive evidence that the Swiss income tax system is not only less progressive but even regressive for single households with very high incomes.

**Fiscal Progression and Income Instability****Jean-Francois Wen<sup>1</sup>, Cecilia Medina-Garcia<sup>2</sup>**<sup>1</sup>University of Calgary, Canada; <sup>2</sup>Banco de Mexico

We construct the ratio of the post-fisc transitory income variance to the pre-fisc transitory income variance as a measure of the extent to which the progressive tax and transfer system protects families against income risks in Canada between 1993 and 2009. To obtain an annual time series of pre- and post-fisc instability variances, we use the method of multi-year rolling windows introduced by Beach et al. (2010), in an otherwise standard non-parametric decomposition of the total income variance of longitudinal data into "permanent" and "transitory" components. We find that the reduction in the protection against risk that is evident following the provincial and federal tax reforms from 1999-2001 are driven by changes occurring for families headed by individuals with less than high school education.

**Non-linear tax with two tax bases – Static income shifting vs. dynamic tax planning****Seppo Kari<sup>1</sup>, Jussi Laitila<sup>2</sup>**<sup>1</sup>VATT, Finland; <sup>2</sup>Department of Biosciences, University of Helsinki

We study the effects of non-linear taxation of entrepreneur's income in a dual income tax. Previous analyses show that a non-linear tax generates incentives to start distributions early (early distribution incentive, EDI). We confirm that without carry forward EDI applies to both income types. Allowing carry forward, EDI disappears and dividend payments are deferred to the steady state phase. As a result pay-out policies for dividends and labor income differ much and static income shifting disappears. A high interest rate used to compound the unutilized allowances leads to tax arbitrage and over-investment. Our analysis helps understanding behavior under Nordic dual income tax, in particular, the effects of recent tax reforms in Finland and Sweden.

**Groupings and the Gains from Tagging****Matti Tuomala<sup>1</sup>, Ravi Kanbur<sup>2</sup>**<sup>1</sup>University of Tampere Finland; <sup>2</sup>Cornell University USA

The large literature on "tagging" shows that group specific tax and transfer schedules improve welfare over the case where the government is restricted to a single schedule over the whole population. The central assumption, however, is that the groupings available to the government are given and fixed. But how many and which types of groups should the government choose to tag? This is the question addressed in this paper. Starting with a simple framework and ending with numerical simulations based on data from Finland, we show how groupings should be formed for tagging, and provide a quantitative assessment of how group differences affect the gains from tagging. We also provide a quantitative assessment of the welfare gains from increasing the number of tagged groups. In particular, we find that the gains from increasing the number of groups fall off quite rapidly.

9:00am - 11:00am  
Room 354, Main Building

**Welfare 6: Family**Session Chair: **Paola Profeta**, Bocconi University**Childcare and the division of parental leave - Evidence from a Swedish reform****Anna Norén**

Uppsala University, Sweden

The purpose of the paper is to investigate whether access to childcare for older siblings during parental leave affects the division of paid parental leave between mothers and fathers. Access to pre-school can be regarded as a decrease in the care burden, or decreased non-monetary cost, of parental leave which may affect how the leave is divided between parents. Using the regional heterogeneity of the implementation of a childcare reform in Sweden in 2002 the effects of access to childcare will be evaluated through a difference-in-differences strategy. Preliminary results suggest that the availability of childcare for an older sibling during parental leave has no effect on the father's take-up with the second born child, but there is suggestive evidence of an increase in the father's share, that is in the division of the total parental leave relative to the first born child.

**The Impact of Targeting Policy on Spouses' Demand for Public Goods, Labour Supplies and Sharing Rule****Panayiota Lyssioutou**

University of Cyprus, Cyprus

This paper studies the impact of targeted unconditional cash transfers on the spouses' demand for public goods, labour supplies and sharing of resources. We estimate a collective labour supply model with distributional factors which is extended to include preferences over marketable public goods (including child goods). In this way, unlike previous research, we consider the impact of such transfers on the intrahousehold allocation of resources and distinguish between the labeling and recipient effects. We exploit the UK experience and find evidence in favour of the collective model with separable preferences over labour supplies and public goods. This finding implies a recipient effect and not a labeling effect of child benefits. Given the household's unearned income, the bigger the wife's bargaining power the more the resources allocated to public goods (including child goods) and the wife's private consumption. The results are useful in the design of family policy to alleviate intrahousehold consumption inequality and poverty.

**Cohort at Risk: The Effects of Divorce Laws on Household Retirement Security****Luca Stella**

University of Padua, Italy

This paper investigates the effect of an increase in the risk of divorce on the retirement security of married couples. My empirical strategy exploits the variation in unilateral divorce law reforms occurring between the late 1970s and the 2000s in Europe as an exogenous shock to the risk of marital breakup. Across countries and over time, these reforms shifted the ground for divorce from mutual consent to unilateral choice. By employing a unique dataset, which contains detailed work and marital histories, I discuss and test the potential mechanisms by which the introduction of unilateral divorce legislation affects the retirement well-being of households. Overall, my results suggest that increased exposure to divorce risk results in a significant wealth accumulation of married couples around retirement, thus lending support to the precautionary motive for saving.

**Old Money, the Nouveau Riche and Brunhilde's Marriage Dilemma****Anne-Kathrin Bronsert<sup>1</sup>, Kai A. Konrad<sup>1</sup>, Amihai Glazer<sup>2</sup>**<sup>1</sup>Max Planck Institute for Tax Law and Public Finance, Germany; <sup>2</sup>Department of Economics, University of California, Irvine, USA

This paper proposes a screening approach to explain why dating is associated with purchasing status products and conspicuous gift giving. A potential bride searching for a husband may seek to screen candidates whose income is only partially observable. Taking into account that she also bears part of the screening costs, she can sort candidates by offering a menu of contracts that triggers but also constrains conspicuous consumption.

9:00am - 11:00am  
A 34, Palazzo Rosso

**Welfare 7: Inequality**Session Chair: **Jun-ichi Itaya**, Hokkaido University**Public investment when capital is back – distributional effects of heterogeneous savings behavior****Linus Mattauch<sup>1</sup>, Ottmar Edenhofer<sup>1,2,3</sup>, David Klener<sup>2</sup>, Sophie Benard<sup>3</sup>**<sup>1</sup>MCC Berlin, Germany; <sup>2</sup>Potsdam Institute for Climate Impact Research; <sup>3</sup>TU Berlin

We study the impact of heterogeneous saving behavior on the distributional effects of public investment. A capital tax is levied to finance

productive public capital in an economy with two types of households: high income households who save dynastically and middle income households who save for retirement. We find that inequality is reduced the higher the capital tax rate and that low rates constitute a Pareto-improvement. There is thus no clear-cut trade-off between efficiency and inequality: middle income households' consumption is maximal at a higher capital tax rate than high income households' consumption.

### Trade Openness and Interregional Inequality

**Christian Lessmann<sup>2</sup>, Georg Hirte<sup>1</sup>**

<sup>1</sup>FAU Erlangen-Nuremberg, CESifo, ifo, IWQW; <sup>2</sup>TU Dresden

We study the effect of international trade on interregional inequality within countries. We estimate a model derived from a structural economic geography approach where interregional inequality depends on weighted trade shares and trade costs. These are instrumented based on constructed trade shares and trade costs fitted from a gravity model of bilateral trade, which covers 208 countries for the period 1948–2006. We analyze a cross country data set of regional inequality within countries, which covers 110 countries (1569 sub-national regions) for the year 2005, and a panel data set, which covers 56 countries (835 sub-national regions) for the period 1980–2009. Instrumental variable regressions show that openness increases interregional inequality within countries.

### Should income inequality be in praise? Multiple public goods provision, income distribution and social welfare

**Jun-ichi Itaya<sup>1</sup>, Atsue Mizushima<sup>2</sup>**

<sup>1</sup>Hokkaido University, Japan; <sup>2</sup>Otaru University of Commerce, Japan

We investigate how income inequality affects social welfare in the model of voluntary contributions to multiple pure public goods and with altruistic preferences. Itaya et al (1997) have shown that maximization of social welfare precludes income equality in the setting of a single pure public good. In contrast, we show that the validity of Itaya et al's result may not hold in the setting of multiple pure public goods. We show that the presence of caring preferences enhances our result. Our findings have implications for the design of the redistribution policy of income.

### Reversal of the Kuznets curve: Study on the inequality-development relation using top income shares data

**Elina Tuominen**

University of Tampere, Finland

This paper uses recently published top 1% income share series in studying the inequality-development association. Top income shares data are of high quality and cover about a century for some countries and thus provide an interesting opportunity to study slow development processes. Moreover, nonlinearities have not been studied sufficiently in the empirical inequality-development literature. To address the issue of functional form, this study utilizes penalized spline methods. It is found that the association between inequality and development experiences a reversal at later stages of development and is, thus, U-shaped in many advanced countries. In addition, results support an inverse-U-shaped relation between inequality and urbanization, and positive relation between inequality and service sector. These results have an interpretation that is possible to fit into ideas presented by Kuznets who discussed shifts in the economy.

11:30am - 1:00pm

Room 254, Main Building

### Envir 3: Natural disasters

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

#### Natural Disasters and Macroeconomic Performance: The Role of Residential Investment

**Holger Strulik, Timo Trimborn**

University of Goettingen, Germany

Recent empirical research has shown that income per capita in the aftermath of natural disasters is not necessarily lower than before the event. Income remains in many cases not significantly affected or, perhaps even more surprisingly, it responds positively to natural disasters. Here, we propose a simple theory, based on the neoclassical growth model, that explains these observations. Specifically we show that GDP is driven above its pre-shock level when natural disasters destroy predominantly residential housing (or other durable goods). Disasters destroying mainly productive capital, in contrast, are predicted to reduce GDP. Insignificant responses of GDP can be expected when disasters destroy productive capital and residential housing in about equal proportions. We show that disasters with insignificant impact on GDP can nevertheless entail considerable losses of aggregate welfare.

#### Kizuna or NIMBY? : Empirical studies on strategic interaction among municipality governments over disaster wastes after the Great East Japan Earthquake of 2011

**Takeshi Miyazaki<sup>1</sup>, Motohiro Sato<sup>2</sup>**

<sup>1</sup>Kyushu University, Japan; <sup>2</sup>Hitotsubashi University, Japan

Strategic interactions among governments have recently become a major focus of empirical and theoretical work in public economics. The NIMBY is one application of the literature. In the present paper, we apply NIMBY model to the disposal of disaster debris after the Great East Japan Earthquake given that there has been strong concern on radioactive contamination due to the Fukushima Daiichi nuclear power plant incident. We formulate the theoretical model and empirically test the strategic interaction among municipality governments. We find strong evidence on such interaction. That is, in deciding whether or not to accept the disaster wastes, the municipal governments seem to keep a close eye on other governments' choices.

#### Shake me the money!

**Francesco Porcelli<sup>1</sup>, Riccardo Trezzi<sup>2</sup>**

<sup>1</sup>University of Exeter, United Kingdom; <sup>2</sup>University of Cambridge, United Kingdom

During a natural disaster, the negative supply shock due to the destruction of productive capacity is counteracted by a positive demand shock due to public grants for assistance and reconstruction, posing an identification issue in empirical work. Focusing on the 2009 'Aquilano' earthquake in Italy as a case study, we take advantage of quantified measure of damages for 75,424 buildings to estimate the negative supply shock and of a law issued to allocate reconstruction grants, which resulted in a sharp, exogenous discontinuity in transfers and output behavior across neighboring municipalities to estimate the positive demand shock. Diff-in-diff analysis suggests that local output multipliers of reconstruction grants (net of marginal tax rebates) are below unity. Yet the size of the grants act as a public insurance scheme, preventing a fall in output.

11:30am - 1:00pm

A 13, Palazzo Rosso

### Envir 4: Theory

Session Chair: **Sebastian Kessing**, University of Siegen

#### Competition for Natural Resources and the Hold-up Problem

**Carsten Hefeker, Sebastian Kessing**

University of Siegen, Germany

We study the role of competition for the hold-up problem in foreign direct investment in resource-based industries. The host country government is not only unable to commit not to expropriate investment ex post, but is also unable to commit to the provision of local resources. In the case of competition for local resources this dual commitment problem triggers higher investment levels, increases host countries revenues, but hurts profits of international investors. Domestic firms can play a similar role as an alternative instrument for host country governments to generate higher foreign investment in an environment of weak property rights.

#### Natural Resource and Growth in a Federation

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

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

We analyze a natural resource extraction problem in a two-region economy with mobile labour. One of the regions produces only manufacturing goods while the other produces services and extracts a non-renewable natural resource. The manufacturing sector exhibits increasing returns-to-scale. The analysis shows that there are multiple equilibrium allocations of labour towards which the economy may converge in the long-run depending on the initial stock of natural resource and the initial distribution of labour. Under decentralized resource management, the level of extraction set by the government of the resource region is higher than in the federal optimum, which tends to enlarge the set of initial conditions under which the economy converges to the low-income equilibrium in the long-run. The optimal path of extraction from the perspective of the federation satisfies a modified Hotelling's rule that takes into account the impact of resource extraction on manufacturing production.

11:30am - 1:00pm  
A 24, Palazzo Rosso

### Optimal Harvesting of a Spatial Renewable Resource

**Thorsten Upmann, Stefan Behringer**

University of Duisburg-Essen, Germany

In this paper we investigate optimal harvesting of a renewable natural resource.

While in most standard approaches the resource is located at a single point, we allow for the resource to be distributed spatially. Consequently, an agent who exploits the resource has to travel from one location to another. For a fixed planning horizon, we investigate the speed and the time path of harvesting chosen by the agent. We show that the agent adjusts the speed of movement so that he visits each location only once, even in the absence of travelling cost. Since he does not come back to any location for a second harvest, it is optimal for him to fully deplete the resource upon arrival. A similar type of a bang-bang solution results when we drop the assumption of a constant harvesting rate.

### FiscPol 10: Fiscal Sustainability

Session Chair: **Takero Doi**, Keio University

#### The impact of fiscal rules on the stabilisation function of fiscal policy

**Agnese Sacchi<sup>1</sup>, Simone Salotti<sup>2</sup>**

<sup>1</sup>Universitas Mercatorum, Italy; <sup>2</sup>Oxford Brookes University, UK

We study the relationship between discretionary fiscal policy and macroeconomic stability in 20 OECD countries over the 1985-2012 period. The novelties of our contribution lie in the use of annual panel data, whereas most of the existing evidence is cross-sectional, and more importantly in the thorough investigation of how fiscal rules affect that policy-macroeconomic stability relationship. We find that the aggressive use of discretionary fiscal policy, particularly of government consumption items, leads to higher volatility of both output and inflation. However, when strict fiscal rules are introduced, discretionary policy becomes output-stabilising rather than destabilising. This result can be more easily achieved by rules on balanced budgets, rather than on expenditures, revenues, or debt. On the other hand, fiscal rules are unable to affect the inflation-destabilising nature of discretionary policy, probably because of the higher importance of central banks in that respect.

### An Unemployment Insurance Scheme for the Euro Area

**Mathias Dolls<sup>1</sup>, Clemens Fuest<sup>1</sup>, Dirk Neumann<sup>2</sup>, Andreas Peichi<sup>1</sup>**

<sup>1</sup>Centre for European Economic Research (ZEW), Germany; <sup>2</sup>Université Catholique Louvain, CORE, Belgium

The Great Recession and the resulting European debt crisis revived a debate about deeper fiscal integration in the Eurozone. We discuss different alternatives how an unemployment insurance system for the euro area could be designed and run counterfactual simulations based on micro data to analyze the effectiveness of a basic scheme and a benefit extension program to act as an insurance device in the presence of asymmetric macroeconomic shocks. We find that a basic insurance scheme could be implemented with a relatively small annual budget of roughly 61 billion euros over the period 2008-2013. Net benefits would have stabilized incomes in particular in Cyprus, Estonia, Greece, Ireland, Portugal and Spain whereas Austria, Germany and the Netherlands would have been the largest net contributors.

11:30am - 1:00pm  
A 14, Palazzo Rosso

### FiscPol 11: Fiscal discipline

Session Chair: **Wouter van der Wielen**, KU Leuven

#### Uncertainty and the Preferred Instrument for Fiscal Discipline under Multitier Government

**Wouter van der Wielen**

KU Leuven, Belgium

This paper assesses the impact of budgetary uncertainty on the optimum instrument for fiscal discipline. In addition to exogenous uncertainty, the model accommodates for externalities as a result of a multitier government structure. Hence, the model approximates fiscal discipline measures within federations and especially within a monetary union. Alternative to the frequently proposed borrowing constraints, the paper sets forth a penalty as a policy instrument. The preferred instrument for fiscal discipline is found to be dependent on the slopes of the marginal savings and damage curves, the savings uncertainty and the correlation between uncertainty in savings and damage as well as between member states' savings shocks. In particular, strongly asymmetric shocks to budgetary policy run a borrowing constraint undesirable. The latter is stressed as exceptionally disturbing as EMU member states are still considered to be asymmetric in their stochastics, while stressing borrowing constraints as the principal instrument for fiscal discipline.

### National Numerical Fiscal Rules: Not Complied With, But Still Effective?

**Wolf Heinrich Reuter**

Vienna University of Economics and Business, Austria

This paper investigates the effects of (non-)compliance with national numerical fiscal rules on fiscal policy in 11 EU member states with 23 fiscal rules in place from 1990-2013. Introducing a new dataset of legal texts constituting the fiscal rules, allows a joint empirical analysis of different types and designs of numerical fiscal rules. In various empirical exercises the change in the difference between the exact variable constrained by the fiscal rule and its numerical limit is analysed. Statistics show that countries tend to comply with their fiscal rules only in about 50% of the years. Various econometric exercises demonstrate that the introduction of fiscal rules does significantly change the behaviour of 50% of the countries do not comply with their fiscal rule in the year or forecast before, there is a strong downward tendency of the constrained variable towards the numerical limit.

11:30am - 1:00pm  
A 11, Palazzo Rosso

### PolEcon 6: Shadow economy

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

#### Estimating the Size of the Shadow Economy: Methods, Problems and Open Questions

**Friedrich Schneider<sup>1</sup>, Andreas Buehn<sup>2</sup>**

<sup>1</sup>Johannes Kepler University of Linz, Austria; <sup>2</sup>Institute for Advanced Sustainability Studies (IASS) Potsdam

This paper presents the various methods to estimate the size of the shadow economy, their strengths and weaknesses. The purpose of the paper is twofold. Firstly, it demonstrates that no ideal method to estimate the size and development of the shadow economy exists. Because of its flexibility, the MIMIC method used to get macro-estimates of the size of the shadow economy is discussed in greater detail. Secondly, the paper focuses on the definition and causal factors of the shadow economy as well as on a comparison of the size of the shadow economy using different estimation methods.

### Economic Freedom and the Shadow Economy: Empirical evidence by using international data

**Jin Kwon Hyun, Iljoong Kim**

Korea Economic Research Institute, Korea, Republic of (South Korea)

Our main concern is to examine the impact of economic freedom on shadow economy by using country level data in 1997. As economic freedom is mostly determined by legal and administrative regulation, we include these two factors to explain the level of shadow economy. As expected, both regulations of law and administration have the positive effect on shadow economy. Thus our empirical evidence suggests that one important policy direction to decrease the level of shadow economy would be legal and administrative deregulatory policies, which will lead to higher levels of economic freedom.

### Shadow Economy and Political Stability: A Blessing or a Curse?

**Mohammad Reza Farzanegan<sup>1</sup>, Ahmed Mohamed Badreldin<sup>2</sup>**

<sup>1</sup>Philipps-University of Marburg, CNMS, Germany; <sup>2</sup>Philipps-University of Marburg, Germany

This study examines the relationship between political stability and the shadow economy in more than 70 countries around the world from 1999-2005. The panel data fixed effects regression results show that there is a turning point in the stability-shadow economy nexus. Moderated levels of the shadow economy can act as political stabilizers while an extensive size of the shadow economy leads to political instability. Formal economies of developing countries, including the Arab world, have significant challenges in providing employment for the increasing working age population. In such a situation, a moderated level of informal economy can provide a safety net for the large army of unemployed, reducing the risk of political instability and conflict. However, massive out-of-books activities also lead to significant budget deficits, challenging the provision of public goods such as security and order.

11:30am - 1:00pm

### PolEcon 7: Lobbying

A 23, Palazzo Rosso

Session Chair: **Thomas Groll**, Columbia University**The market for lobbying services in Canada****Ross David Hickey**

University of British Columbia Okanagan, Canada

This paper studies the competitiveness of the market for lobbying services. Using administrative data from Canada between 1996 and 2009 we construct measures of the concentration in the market for lobbying services. The data suggests that as a whole this market was and is competitive. However when partitioning the data at the ministry level we see a range of market concentration with some of the most lobbied departments persistently being the least competitive. We assess the impact of regulatory change by estimating a model of entry of new firms at the submarket level. The results indicate that the market for lobbying services appears to have become more competitive as a result of the lobby registry, but has become slightly less competitive as a result of recent regulation.

**The effect of lobbying on income distribution in an OLG model****Tsuyoshi Shinozaki, Isidoro Mazza, Minoru Kunizaki**

Tohoku-gakuin university, Japan

This paper analyzes the relationship between income distribution and lobbying activity in an overlapping generations model. In particular, we investigate (i) the long run effect on income distribution and (ii) the long run effect an optimal bequest tax on income of middle class, also when this can lobby the policymaker. We show the following three results. Firstly, the source of income inequality depends on labor reaction to a bequest tax, while lobbying activity may increase or decrease income distribution inequality. Secondly, the wealth of workers' middle class increases through lobbying and the investment in education to become skilled. Thirdly, the level of per capita output in the long run always decreases because of lobbying. Lobbying by unskilled workers, moreover, can decrease income inequality while lobbying by skilled workers increases the income inequality and decreases the output per worker.

**Dynamic Commercial Lobbying****Thomas Groll<sup>1</sup>, Christopher J. Ellis<sup>2</sup>**<sup>1</sup>Columbia University, United States of America; <sup>2</sup>University of Oregon, United States of America

We explain why the preponderance of lobbying occurs between policymakers and commercial lobbyists rather than directly between policymakers and the special interest groups themselves. Commercial lobbyists are for-profit organizations that have no policy bias and interact repeatedly with policymakers; Using a dynamic model of commercial lobbying, we show that policymakers select a point on the lobbyist's incentive compatibility constraint which represents a contract involving a mix of financial contributions and information on policy proposals and solve both an information problem and a contracting problem in the absence of observable information and legally binding contracts. Both the distribution of the benefits and welfare implications arising from the introduction of repeated agency depend upon the relative weights placed by the policymaker on solving the information and contracting problems. Relative to the full information social welfare optimum the policymaker may place too much or too little weight on socially beneficial policy information relative to privately beneficial financial contributions.

11:30am - 1:00pm

A 12, Palazzo Rosso

**PoIEcon 8: Median voter**Session Chair: **David Stadelmann**, University of Bayreuth**Income Inequality And Political Inequality In The U.S.****Pavel Brendler**

European University Institute, Italy

Existing structural models predict too high income redistribution for the U.S. economy if the tax rate is chosen by the median voter. One potential explanation is that the political process in the U.S. is biased towards wealthier agents. In this case, the decisive agent is richer than the standard median voter and therefore prefers lower redistribution. In this paper I ask: Can the wealth bias in the political process rationalize a significant drop in progressiveness of the income tax system induced by the Economic and Recovery Tax Act of 1981. I introduce wealth-weighted majoritarian voting over progressive income taxation into a heterogeneous agent model with incomplete financial markets. I show that the model can significantly better explain the dynamics of income redistribution in the U.S. since 1980s than a model, in which the standard median voter is decisive.

**Testing the Median Voter Model and Moving Beyond its Limits: Do Characteristics of Politicians Matter?****David Stadelmann<sup>1,2</sup>, Marco Portmann<sup>3</sup>**<sup>1</sup>University of Bayreuth, Germany; <sup>2</sup>CREMA, Switzerland; <sup>3</sup>University of Fribourg

We exploit a natural measure of congruence between politicians and their constituency's preferences to directly quantify the extent of legislative shirking and to evaluate the mechanism of the median voter model. While the median voter model outperforms a random decision benchmark when predicting the behavior of politicians with respect to revealed preferences of their constituency, it fails to account for a substantial part of its theoretical prediction of convergence. Nevertheless, majority elections fully crowd out individual characteristics and party affiliations as potential factors which explain legislative shirking, a surprising results given failing convergence.

**Direct Democracy, Partial Decentralization and Voter Information: Evidence from Switzerland****Sergio Galletta**

USI, Switzerland

In this paper I investigate whether changes in the availability of direct democratic institutions in local Swiss jurisdictions affect expenditure decentralization. By using a difference in differences estimation to look at changes over time of mandatory fiscal referendum, I find a statistically significant reduction in decentralization when this direct democratic instrument is introduced at a local level. This result is consistent with the proposed theoretical framework. Direct democracy increases citizen awareness of government behaviour which eventually affects the electoral incentives for politicians. When officials from two levels of government share responsibility for the provision of public goods, they find it convenient for electoral reasons to assign expenditures to where citizens have the lowest control over government actions.

11:30am - 1:00pm

A 22, Palazzo Rosso

**PubGoods 4: Public private partnership**Session Chair: **Laure Athias**, University of Lausanne**Public-Private Partnerships: Multiple Tasks at the Operation Stage****Kosuke Oshima**

University of Marketing and Distribution Sciences, Japan

Public-Private Partnerships (PPP) include various governance structures which distribute tasks and ownership of facility differently. Many earlier theoretical studies assume just two tasks, building and operation, which is probably too simple to explain complicated projects such as prisons. The present paper divides the task of operation into two (maintenance and security), which enables us to suppose and compare several relevant governance structures for providing public services. I found that private management or Build-Operate-Transfer (BOT) project can be the most desirable for prisons, but not necessarily for other public services.

**Does Decentralization Hinder or Foster Privatization? Evidence from Public Private Partnerships in OECD Countries****Laure Athias<sup>1</sup>, Julie Le Gallo<sup>2</sup>, Thierry Madiès<sup>3</sup>**<sup>1</sup>University of Lausanne, Switzerland; <sup>2</sup>University of Besançon, France; <sup>3</sup>University of Fribourg, Switzerland

Most empirical studies dealing with the determinants of public private partnerships (PPPs) fail to account for institutional variables such as decentralization. It is all the more surprising that decentralization of responsibilities to subnational governments may have an impact on private provision of public services, as incentives provided by decentralized regimes are different from centralized ones. Insights into the fiscal federalism literature do not allow us to draw clear-cut conclusions about whether decentralization fosters or hinders PPPs. In this paper, we address this issue empirically using panel data on PPPs in 30 OECD countries over 1994-2011. We find that our different measures of fiscal decentralization are consistently associated with more PPPs. More particularly, our measure of subnational real autonomy turns out to be highly statistically significant, which suggests that decentralization and privatization go hand in hand due to the greater accountability of local policy makers that this government structure may engender.

**Public Education Spending and Private Substitution in Urban China****Cheng Yuan<sup>2</sup>, Lei Zhang<sup>1</sup>**<sup>1</sup>Shanghai Jiao Tong University, China, People's Republic of; <sup>2</sup>Peking University, China, People's Republic of

This paper studies how increases in public education spending affect household education spending in urban China, focusing on households with children in compulsory education (Grades 1-9). The specific institutional features of the public education finance in China render public education spending exogenous to household preferences and allow us to identify a causal relationship. We find that increases in public education spending lead to significant decreases in household spending on public school tuition and private tutoring but no change in spending



on textbooks. Robustness analyses suggest that changes in household tutoring spending capture household behavioral responses to potential changes in school environment and teaching rather than confounding effects of other contemporaneous economic or policy changes. Reductions in household spending on tuition is homogeneous across income groups, whereas reductions in household tutoring spending come primarily from the top and bottom income groups, with the lowest-income households experiencing the largest reduction.

11:30am - 1:00pm  
A 33, Palazzo Rosso

#### Welfare 8: Transfers

Session Chair: **Mitsuyoshi Yanagihara**, Nagoya University

##### Population Growth and the Transfer Paradox in an Overlapping Generations Model

**Kojun Hamada<sup>2</sup>, Tsuyoshi Shinozaki<sup>3</sup>, Mitsuyoshi Yanagihara<sup>1</sup>**

<sup>1</sup>Nagoya University, Japan; <sup>2</sup>Niigata University, Japan; <sup>3</sup>Tohoku Gakuin University, Japan

In this paper, we use a one-sector overlapping generations model to investigate the transfer problem between a donor and a recipient that have different population growth rates. Unlike existing results obtained from models in which the two countries share the same population growth rate, we demonstrate that if the population growth rates differ, donor enrichment does not arise in the steady state under dynamic efficiency. This result suggests that the prevailing finding that donor enrichment

can occur when countries have the same population growth rate is a special case. We also delineate the transfer problem on the transition path.

##### Optimal Decumulation of Assets in General Equilibrium

**James A Feigenbaum**

Utah State University, United States of America

Conventional wisdom among economists says it is best for a household with no bequest motive to invest its assets in an annuity. However, very few people actually follow this advice, and recent work has shown that the economy can be better off in general equilibrium if households do not annuitize their savings. Though in partial equilibrium, households are better off participating in traditional annuities that assimilate assets upon death and therefore deliver higher returns than bonds, it is suboptimal for households to have access to traditional annuities. Instead, households should generally be encouraged to participate in "bond annuities", which offer the same internal rate of return as bonds while paying a constant stream of income. Upon death, ownership of the assets in a bond annuity is retained by the household's estate, which recirculates this wealth to a greater part of the population than would a traditional annuity.

##### Gender differences in volunteer activities

**Marcus Dittrich, Bianka Mey**

Chemnitz University of Technology, Germany

Using unique data from a large-scale online survey conducted in Germany, we examine gender differences in volunteering for charitable organisations. Our findings suggest that men are more likely than women to engage in volunteer activities. Additionally, we find that men devote more time to charitable causes than women. However, disaggregating the volunteer labour supply by different organisations reveals that women spend more time performing volunteer work for organisations that help the poor or elderly.

11:30am - 1:00pm  
A 34, Palazzo Rosso

#### Welfare 9: Well-being

Session Chair: **Markus Haavio**, Bank of Finland

##### The economic-growth – subjective-well-being puzzle: The role of social ties

**Jani-Petri Laamanen<sup>1</sup>, Petri Böckerman<sup>2</sup>, Esa Palosaari<sup>1</sup>**

<sup>1</sup>University of Tampere, Finland; <sup>2</sup>Labour Institute for Economic Research, Finland

Whether economic growth increases subjective wellbeing has been under debate. Studies that find such an effect document heterogeneity between countries in the magnitude of the effect. We test a model in which economic growth increases subjective wellbeing only when a large share of the population derives subjective wellbeing from mutually beneficial relationships (relational goods) and the choice between income and relational goods is determined by individuals' early-developing

schemas of self and others, which in psychology are conceptualized as the security of individuals' attachment style. More specifically, we test whether economic growth increases subjective wellbeing more in those countries where the average attachment security is higher. We find zero or negative relationships between economic growth and subjective wellbeing most often in countries with low average attachment security.

##### Sin Licenses Revisited

**Haavio Markus<sup>1</sup>, Kaisa Kotakorpi<sup>2</sup>**

<sup>1</sup>Bank of Finland; <sup>2</sup>University of Turku, Finland

We analyze personalized regulation in the form of sin licenses (O'Donoghue and Rabin 2003, 2005, 2007) to correct the distortion in the consumption of a harmful good when consumers suffer from varying degrees of self-control problems. We take into account demand uncertainty, which generates a trade-off between flexibility and the commitment provided by sin licenses. We also account for the possibility that consumers may trade the sin good in a secondary market, which partially erodes the commitment power of sin licenses. We show that if sophisticated consumers are allowed to choose any general, individualized pricing-scheme for sin goods, they will choose a system of sin licenses. Nevertheless, sin licenses do not implement the first best in our general setting. Under certain conditions, social welfare will increase if linear taxation of sin goods is supplemented by a system of voluntary sin licenses; but welfare might decrease if the linear tax was replaced by sin licenses.

##### Biased Perceptions of Income Inequality and Redistribution

**Carina Engelhardt, Andreas Wagener**

University of Hannover, Germany

When based on perceived rather than on objective income distributions, the Meltzer-Richards hypothesis and the POUM hypothesis work quite well empirically: there exists a positive link between perceived inequality or perceived upward mobility and the extent of redistribution in democratic regimes – though such a link does not exist when objective measures of inequality and social mobility are used. These observations highlight that political preferences and choices might depend more on perceptions than on factual data.

11:30am - 1:00pm  
A 21, Palazzo Rosso

#### Welfare 10: Aging and Pensions

Session Chair: **Stanley L. Winer**, Carleton University

##### Pension reform disabled

**Sigurd Mølster Galaasen**

University of Oslo, Norway

Old-age pension reform is on the agenda across the OECD, and a key target is to delay retirement. Most of these countries also have a disability insurance (DI) program accounting for a large share of labor force exits. This paper builds a quantitative life-cycle model with endogenous retirement to study how DI and old-age pension (OA-pension) systems interact to determine retirement age, with particular focus on the macroeconomic effects of OA-pension reforms. Individuals face uncertain future health status and wages, and if in bad health they are eligible for DI if they choose to retire before reaching the statutory retirement age. The main contribution of the paper is that I, in contrast to standard macro pension models, include DI as another endogenous margin of retirement. I show that failure to account for this margin might severely bias the outcome of OA-pension reforms.

##### Diversity of labor supply incentives and retirement: evidence from Ireland

**Roman Raab<sup>1</sup>, Brenda Gannon<sup>2</sup>**

<sup>1</sup>Keele University, United Kingdom; <sup>2</sup>University of Manchester, United Kingdom

This paper gives a first-time assessment of the interaction between retirement programs (public and occupational) and labor force behavior of older people in Ireland. Workers planning retirement face a trade-off between earnings from continued work and benefit payments from income security programs. The method portrayed in Gruber and Wise (1999) is used to simulate the behavioral incentives coming from these programs. Retirement pathways typical for Ireland uncover different patterns of the incentives; these patterns correspond to observed retirement behavior. A major source of variation relates to the coverage by occupational pensions.

##### A Decomposition Analysis of the German Gender Pension Gap

11:30am - 1:00pm  
A 32, Palazzo Rosso

**Carsten Hänisch, Jonas Klos**

Fraunhofer-Institut für Angewandte Informationstechnik FIT, Germany

This paper discusses the gap in own old-age incomes of men and women and explores the causes for these differences by means of decomposition methods using German micro-data of the survey "Alterssicherung in Deutschland" (ASID). The Gender Pension Gap has decreased but still amounts to about 60 % as of 2007. We find that this gap is mainly explained by differences in labor market experience and education. The gap is especially high at the lower end of the pension income distribution. The contribution of differing labor market experiences to the explained gap is particularly pronounced for retirees with low pensions.

**Welfare 11: Employment and unemployment**

Session Chair: **Vincenzo Galasso**, Bocconi University

**Electoral Incentives and Economic Policy across Political Regimes**

**Vincenzo Galasso<sup>1</sup>, Salvatore Nunnari<sup>2</sup>**

<sup>1</sup>Bocconi University, Italy; <sup>2</sup>Columbia University

This paper provides a direct test of the link from electoral rules to an economic policy — Unemployment Benefits. Our theoretical model delivers unambiguous predictions on the interaction between electoral institutions and a time varying event, namely the unemployment rate in pivotal and non-pivotal districts. Electoral incentives induce more generous UB transfers

in majoritarian than in proportional systems if the unemployment rate is higher in pivotal than in non-pivotal districts. Using a dataset with local information on electoral competitiveness and unemployment rates, and different measures of UB generosity for 21 OECD countries in the 1980-2001 period, our panel analysis strongly supports these predictions.

**Follow the leader? Public and private wages in the Netherlands.**

**Adam C Elbourne, Annette S Zeilstra**

CPB Netherlands Bureau for Economic Policy Analysis, Netherlands, The

This study investigates wage leadership in the Netherlands. We empirically examine public and private wages using several wage definitions for the period 1980-2012. We find no evidence for public wage leadership. Moreover, public wages return to their previous equilibrium value three to four years after an exogenous shock in public wages. By contrast, an exogenous shock to private wages has a permanent influence on both private and public wages. These findings suggest that although a public wage freeze lowers public expenditure in the short-run, it is not an effective policy measure to lower public expenditure in the medium and long-run.

**Unreported labor, Inequalities, and Taxation**

**Oceane Jeanne Briand**

University of Mannheim, Germany

This model uses heterogeneity in productivity across and within firms to generate two types of informality - full and within-firm informality - in an economy where monitoring of compliance is imperfect. Within-firm informality - unreported labor by formal firms - arises because formal entrepreneurs can increase the profitability of low-productivity segments of production by employing informal workers. I identify the welfare impact of informality on each type of occupations. I show that full and within-firm informality do not necessarily evolve similarly in reaction to changes in tax rates or labor regulations and must be analyzed separately to understand the extent of informality in an economy. The fiscal capacity of the government - the ability of the government to increase the share of taxes in firms total revenues (formal and informal) - determines whether a given tax reform increases or decreases the welfare of informal workers, which are the individuals at the lower end of the ability distribution.

11:30am - 1:00pm  
A 31, Palazzo Rosso

**Welfare 12: Fertility I**

Session Chair: **Volker Meier**, University of Munich

**Daddy months**

**Volker Meier<sup>1,2</sup>, Helmut Rainer<sup>1,2</sup>**

<sup>1</sup>University of Munich, Germany; <sup>2</sup>Ifo Institute for Economic Research

We consider a bargaining model in which husband and wife decide on the allocation of time and disposable income. Since her bargaining power would go down otherwise more strongly, the wife agrees to having a child only if the husband also leaves the labor market for a while. The daddy months subsidy enables the couple to overcome a hold-up problem and thereby improves efficiency. However, the same ruling harms cooperative couples and may also reduce welfare in an endogenous taxation framework.

**Child Support, Pensions and Endogenous (and Heterogeneous) Fertility**

**Andras Simonovits**

CRES HAS, Hungary

van Groezen, Leers and Meijdam (2003) analyzed the combination of public pension and child support in an OLG model. Their infinite stream of generations is simplified into three generations and the maximization of a paternalistic social welfare function yields the socially optimal tax and pension contribution rates. Negative saving is excluded and heterogeneity of rearing costs and of enjoying children is introduced. Two major results: (i) the introduction of the transfer system involves a jump over the gap created by the initial drop of welfare; (ii) the introduction of fertility-dependent pensions may strengthen heterogeneity in fertility.

**Designing Pension Systems for Aging Societies: Drivers, Criteria, and Choices**

**Robert Holzmann**

University of Malaya, Austria

Population aging is a very young phenomenon to mankind for which there is not end in sight. This calls for a review of all societal institutions, from the likely oldest one – marriage – to one of the youngest – public pensions. The paper considers the extension of working life as the dominant strategy to address population aging, outlines main challenges for the labor market that need to be met, and suggests a number of criteria a pension system should have. These criteria are applied to key options around the funded-undefined/defined contribution-defined benefit combinations. DC schemes clearly dominate DB schemes on most dimensions but the dominance is less clear for the funding mechanism, both in accumulation and disbursement. Critical for aging-proofing of a pension system is the integration with the other pillars, in particular the zero pillar.

2:00pm - 3:00pm  
Aula Magna, Main Building

**Keynote IV: Redesigning the welfare state for aging societies: what can we learn from international comparisons?**

Session Chair: **Kerstin Schneider**, University of Wuppertal

Keynote Lecturer: **Axel Börsch-Supan** (MEA, Munich, Germany)

**Redesigning the welfare state for aging societies: what can we learn from international comparisons?**

**Axel Börsch-Supan**

Max-Planck-Institute for Social Law and Social Policy, Germany

Slides for Prof. Axel Boersch-Supan's plenary lecture

3:30pm - 5:30pm  
A 14, Palazzo Rosso

**BusTax 6: Location decisions**

Session Chair: **Agustin Redonda**, University of Lugano

**Trade Taxation and Entrepreneurship - Evidence from German Firm Data**

**Melissa Engel<sup>1</sup>, Florian Misch<sup>2</sup>, Johannes Voget<sup>3</sup>**

<sup>1</sup>Center for European Economic Research, Germany; <sup>2</sup>Center for European Economic Research, Germany; <sup>3</sup>University of Mannheim, Center for European Economic Research, Germany

In this paper we study the effect of trade taxation on the creation of new firms. We use an extensive and unique data set on all entering firms between 2000 and 2012 in Germany. We exploit the specific characteristic of the German trade tax that the local multiplier is set independently by each municipality. This leads to tax differentials among municipalities which are only due to the multiplier and not to other differences in legal regulations. The main focus is on mobility of firms and the distance between firm and shareholder to determine the effect of the level of trade taxation on the entering behaviour of potential entrepreneurs. To analyze our count data we apply a Poisson model in cross-section and panel analyzes. So far no robust results are obtained.

**Interjurisdictional Competition and Location Decisions of Firms**

**Ruben Hernandez-Murillo**

Federal Reserve Bank of St. Louis, United States of America

We examine the welfare properties of alternative regimes of interjurisdictional competition for mobile firms. Alternative taxation regimes represent restraints on the discretionary powers of taxation of local governments, and firms differ not only in terms of the degree of mobility but also in terms of productivity.

We find that average welfare is higher under discretionary and more efficient taxation regimes (in the sense of minimizing deadweight losses from distortionary taxation) when firms are highly mobile. In this situation, further limiting competition by imposing a system of non-discretionary instruments can reduce average welfare by reducing the efficiency of the local governments at raising and allocating public funds.

When firms face high moving costs, on the other hand, switching to a non-discretionary and less efficient taxation regime may increase welfare by preventing local governments from engaging in excessive redistribution of resources from the immobile residents to the mobile firms.

**Strategic Treaty Shopping****Sunghoon Hong**

Korea Institute of Public Finance, Korea, Republic of (South Korea)

This paper examines treaty shopping with a game-theoretic model in a network of tax treaties. An investor can choose an investment route across national borders to minimize tax while a tax agency can choose to audit the investor to find out the route. The audit is costly but it can give additional revenue to the tax agency if it reveals that the investor chose an indirect route for tax avoidance. I analyze the equilibrium of this model and calculate tax revenue loss due to treaty shopping. I also examine the structure of tax-minimizing investment routes in a real-world network of tax treaties between selected countries. While about 75 percent of tax-minimizing indirect routes pass through countries with no withholding tax, about 21 percent of tax-minimizing indirect routes pass through countries with treaty networks favorable to certain residence countries. Network centrality measures are introduced to assess the role of pass-through countries.

**Taxes and Firm's Investment Decisions: Evidence from Swiss Municipalities****Agustin Redonda, Sergio Galletta**

University of Lugano, Switzerland

Profit taxation affects firms' investment decisions through, at least, two channels: the level of corporate taxes and the progressivity of the tax schedule. We estimate the effect of both channels on firms' location choices in Switzerland. We base our analysis on a unique dataset with data for almost 2000 Swiss municipalities for the 1985-2008 period. We find that both high average tax rates and tax progressivity increase the number of firms in a given jurisdiction. The latter result confirms the existence of an insurance effect. On the other hand, the positive impact of average tax rates should be thought in a broader context where municipalities compete to attract firms by decreasing tax rates but also in many other dimensions such as creating business-friendly environments.

3:30pm - 5:30pm

A 22, Palazzo Rosso

**BusTax 7: Tax reform**Session Chair: **Wolfram F. Richter**, TU Dortmund University**Taxes and Corporate Financing Decisions: Evidence from the Belgian ACE Reform****Nils aus dem Moore**

RWI - Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany

We undertake a micro-econometric evaluation of the so-called ACE corporate tax reform in Belgium based on firm-level accounting data. We interpret the reform that came into effect in January 2006 as a quasi experiment. We identify its causal impact on the leverage ratio of Belgian corporations by means of a difference-in-differences (DiD) approach, using corporations from the UK as a comparison group. Our results document that the ACE reform led to a systematic pattern of heterogeneous effects on the capital structure of Belgian corporations, as the expected reduction of the leverage ratio is limited to big firms. Estimation of quantile treatment effects further reveals that the effect gets larger across the distribution of firm leverage. Finally, we provide evidence of sectoral heterogeneity with significant effects observed for capital-intensive, but not for labor-intensive sectors. These results are consistent with anecdotal descriptive evidence provided by experts from the Belgian tax authorities.

**The effects of personal income tax reforms on tax deductions by income source****Philipp Dörrenberg<sup>1</sup>, Andreas Peich<sup>2</sup>, Sebastian Sieglöck<sup>3</sup>**<sup>1</sup>ZEW; <sup>2</sup>University of Mannheim, Germany; <sup>3</sup>IZA

A large and ever growing literature focuses on the role of tax rates on taxable income as summarized by the elasticity of taxable income. Compared to multitude of studies on labor supply, the evidence on tax expenditures as a means of reducing the taxable income is remarkably scarce. In this paper, we intend to fill this research gap by providing a thorough and comprehensive analysis of the tax effect of itemized deductions using administrative German taxpayer micro data. Our analysis explicitly accounts for the heterogeneous prevalence and responses of deductions across different types of taxpayers and income sources. For identification, we exploit several tax reforms of the German income tax system between 2000 and 2008, both in terms of tax rates and as far as the treatment of itemized deductions are concerned.

**Efficiency and equity aspects of 20 years of tax benefit reforms in Belgium: microsimulation results****Toon Vanheulekom<sup>1</sup>, André Decoster<sup>1</sup>, Dieter Vandellannoote<sup>3</sup>, Gerlinde Verbist<sup>3</sup>, Sergio Perelman<sup>2</sup>**<sup>1</sup>KU Leuven, Belgium; <sup>2</sup>Université de Liège, Belgium; <sup>3</sup>University of Antwerp, Belgium

Belgium has seen major changes in its tax benefit system over the past twenty years. These changes have -to a large extent- co-determined the evolution of disposable incomes of Belgian households on the one hand, and their incentives on the other hand. In the past a range of partial analyses have looked at different aspects of tax-benefit policy in isolation. In this paper we attempt to assess equity and efficiency aspects of all changes in tax-benefit policy over the full course of 1992-2012. In order to assess the effect policy had on the different households, we simulate the effects of current and past tax-benefit policies using the microsimulation model MEFISTO-EUROMOD. We find that the reforms to the system were to a large extent pro-poor, and improved equity in general. This did come at a cost: the marginal cost of public funds increased considerably over time implying increased welfare costs.

**How do state owned enterprises react to taxation? Evidence from China****Clemens Fuest<sup>1</sup>, Li Liu<sup>2</sup>**<sup>1</sup>ZEW Mannheim, University of Mannheim, CESifo and IZA; <sup>2</sup>University of Oxford

Theories about the impact of taxes on firm behaviour are divided about how taxes affect state owned enterprises. This paper exploits various aspects of the 2006-2008 corporate tax reform in China to shed light on how taxes affect state owned and private companies. We focus on a change in the deductibility of wage costs and find that the impact on state owned enterprises is larger than on privately owned firms.

3:30pm - 5:30pm

A 31, Palazzo Rosso

**BusTax 8: Capital taxation**Session Chair: **Vidar Christiansen**, University of Oslo**How harmful is it to tax mobile capital?****Vidar Christiansen**

University of Oslo, Norway

Assuming there is a trade-off between the harmful effects of taxing mobile capital and arguments for taxing corporate income the paper addresses how harmful it is to tax mobile capital. In the simple single-sector economy with international capital and exogenous labour supply, the crucial factors are the elasticity of substitution between capital and labour, the capital-labour ratio and the tax rate. It is shown that elastic labour supply will aggravate the social loss. Where a second sector with purely domestic capital is added, a number of further effects will arise. Typically induced substitution towards labour in the second sector will make less labour available for the international corporation and cause further harmful outflow of international capital. Other interaction effects between the two sectors affecting the outflow of capital may be due to changes in domestic demand for the second sector output, or changes in the allocation of domestic capital.

**Capital Taxation, Investment, Growth, and Welfare****Simon Boesenberg<sup>1</sup>, Peter Egger<sup>2</sup>, Benedikt Ryddek<sup>1</sup>**<sup>1</sup>KOF ETH Zurich, Switzerland; <sup>2</sup>ETH Zurich, CEPR, CESifo, Leverhulme Centre for Research on Globalisation and Economic Policy (GEP) at the University of Nottingham, and Oxford University Centre for Business Taxation (OUCBT)

This paper formulates a model of exogenous growth to study the effects of broad capital taxation (of profits, dividends, and capital gains) on macroeconomic outcomes. The framework permits modeling countries in transition to a country-specific steady state and to discern steady-state and transitory effects of shocks on economic outcomes. The chosen framework is amenable to structural estimation and, given the parsimony in

terms of unknown parameters, fits data on 79 countries between 1996 and 2011 extraordinarily well. A quantitative exercise shows that capital tax reductions induce positive effects on output and the capital stock that are economically significant and are accommodated within time windows of 5 years without much further economic response after that. The effects are strongest for corporate profit tax rates and weaker for dividend and capital gains taxes. From a welfare perspective, reducing capital taxes would be beneficial for some countries but not for others.

#### Capital allowances and investment: evidence from UK corporate tax returns

**Giorgia Maffini<sup>1</sup>, Jing Xing<sup>2</sup>, Michael Devereux<sup>3</sup>**

<sup>1</sup>Oxford University, United Kingdom; <sup>2</sup>Oxford University, United Kingdom; <sup>3</sup>Oxford University, United Kingdom

How do corporate tax incentives such as capital allowances affect firm investment? In this paper, we provide new empirical evidence on the effects of capital allowances on investment based on confidential UK tax returns during 2001-2009. We exploit the exogenous changes in the qualifying threshold for the first-year capital allowances in 2004 and the changes in the capital allowance rates during 2004-2007 to conduct difference-in-difference analysis. The confidential tax returns data allow us to identify firms that have been affected by such changes in the tax code and also to precisely identify the types of assets affected by the policy change, that is, plant and machinery. Our preliminary results suggest that investment rate increased around 4-5 percentage point when firms became qualified for the first-year allowances in 2004, relative to firms that were never qualified.

3:30pm - 5:30pm  
A 12, Palazzo Rosso

#### Educ 3: Education and mobility

Session Chair: **Silke Uebelmesser**, Friedrich Schiller University Jena

#### The Second Dividend of Studying Abroad: The Impact of International Student Mobility on Academic Performance

**Katharina Suntheim, Johannes Meya**

Georg-August University Göttingen, Germany

In our analysis we investigate the effect of studying abroad on the final university grade. To overcome the problem of possible self-selection into international mobility, we apply a propensity score matching strategy. Our empirical results show that a temporary study-related visit abroad improves the final university grade. In addition, we find that students who count classes taken abroad towards their degree have a significantly better final university grade than their counterparts who do not transfer any grades. This might indicate that especially the grades achieved at the foreign university are the channel through which studying abroad influences academic performance.

#### Educational Production Functions as of 1886: How Primary Schooling Shaped Economic Development in End-of-Nineteenth-Century Prussia

**Ruth Maria Schueler<sup>1</sup>, Ludger Woessmann<sup>1,2,3</sup>**

<sup>1</sup>ifo Institute, Germany; <sup>2</sup>University of Munich; <sup>3</sup>CESifo and IZA

How did educational inputs relate to economic outcomes historically? End-of-19th century Prussia, where mass expansion of schooling had arisen locally is used to estimate a historical educational production function. The first education census on primary schools from 1886 provides county-level data on schooling quality and quantity. Two measures for economic outcomes, income tax per capita and day-laborer wages, available before and after the census, allow for a value-added approach and for observing heterogeneous associations as they measure earnings of high- and low-wage earners. The findings show that teacher quality increases day-laborer wages while educational investments increase income tax per capita.

#### Student and Graduate Migration and its Effect on the Financing of Higher Education

**Tina Haussen<sup>1</sup>, Silke Uebelmesser<sup>1,2</sup>**

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

The number of tertiary students enrolled outside their home country has almost doubled in the last decade. In higher education systems that are partly tax-funded, a country's labor force might not be willing to subsidize the education of foreign students who can be expected to work abroad after graduation with high probability. This paper analyzes whether and how student mobility affects the governmental decision about the financial regime of higher education based on aggregated data of 22 OECD countries for the period 2000 to 2010. We find a small but significant positive correlation. Supported by robustness checks, this points into the direction that the larger the share of foreign students among all students in a country, the more a country shifts to private-based funding. Among others we additionally find that the private financing share of higher education funding depends on a country's tax revenue, its GDP and the share of students enrolled in private universities.

#### College Expansion and Curriculum Choice

**Xuejuan Su<sup>1</sup>, Michael Kaganovich<sup>2</sup>**

<sup>1</sup>University of Alberta, Canada; <sup>2</sup>Indiana University

This paper analyzes the impact of college enrollment expansion on student academic achievements and labor market outcomes. When public policies promote "access" to college education, colleges adjust their curricula: Non-elite public colleges adopt a less demanding curriculum in order to accommodate the influx of low-ability students. This adjustment benefits low-ability students at the expense of middle-ability students. At the same time, it reduces the competitive pressure faced by elite private colleges, as public colleges are now a less appealing alternative for middle-ability students. Private colleges hence adopt a more demanding curriculum to better serve their high-ability students, again at the expense of middle-ability students. The model offers an explanation to the observed U-shaped earnings growth profile among college-educated workers in the U.S.

3:30pm - 5:30pm  
A 13, Palazzo Rosso

#### FiscPol 12: Fiscal federalism

Session Chair: **Ekkehard A. Köhler**, Walter Eucken Institut and University of Freiburg, Germany

#### Developing Composite Indicators for Fiscal Decentralization

**Gyun Cheol Gu**

Korea Institute of Local Finance (KILF), Korea, Republic of (South Korea)

The right way to measure the degree and extent of the different aspects of fiscal decentralization has been a long-debated, yet underdeveloped issue. Moreover, there has been little consensus on the right approach to developing a single indicator which is sometimes needed to show a general trend in fiscal decentralization and to reveal relationship to other variables in empirical studies. In particular, several composite indicators of fiscal decentralization have been proposed, but there are very few attempts to evaluate and compare these measures in terms of implicit biases and different weights between revenue and expenditure decentralization. Critically reviewing and comparing various types of fiscal-relation indicators in a systematic way, this paper proposes two criteria to classify similar-looking composite indicators for fiscal decentralization while it also presents two new composite measures.

#### Time Series and Panel Cointegration Estimation of Public Finance in German States: A "Second Generation" Fiscal Sustainability Analysis

**Ekkehard A. Köhler, Heiko T. Burret, Lars P. Feld**

Walter Eucken Institut and University of Freiburg, Germany, Germany

This paper provides new evidence on the sustainability of public finances in German states (Laender) by exploiting a newly compiled database covering the years 1950-2011. Unlike previous studies on Germany, we analyze fiscal sustainability by applying "second generation" panel cointegration techniques. A unique identification strategy for the selection of sub-panels improves the robustness of panel cointegration tests and reveals that Laender finances are hardly sustainable.

#### Benefiting from a European 'fiscal union'? Redistribution vs. stabilization

**Dirk Neumann**

Université catholique de Louvain, Belgium

The Great recession and the resulting debt crisis have given rise to a debate concerning deeper fiscal integration in Europe. Recent studies mostly take a macro perspective when analyzing possible steps towards a European 'fiscal union'. In contrast, this paper provides an evaluation method at the individual level and calculates the equivalent variation for the benchmark case of a common tax and transfer system relative to the baseline with national systems. Based on counterfactual simulations and micro data for 27 EU member states, results suggest that especially Eastern European countries would gain from such a reform, mainly due to a redistributive effect. Fiscal integration of fewer but more similar countries generally reduces redistributive and increases stabilizing effects. However, Pareto improving reforms where at least one country gains while no one loses seem to be possible only for rather severe crisis scenarios, or for high levels of individual risk aversion.

#### Efficient Centralized Earmarking under Decentralized Fiscal Commitments

**Emilson Caputo Silva**

University of Alberta, Canada

**3:30pm - 5:30pm**  
Room 254, Main Building

Earmarked federal grants are ubiquitous and significant. Traditional fiscal federalism is unable to explain the widespread utilization of such grants. Recent arguments focusing on the potential benefits of centralized earmarking in reducing incentives for the creation of soft budgets at sub-central government levels merit formalization. This is the main motivation for the paper. The fruits of the analysis provide a clear normative prescription: the central government should earmark its grants in order to redistribute private consumption and public expenditures incurred in the provision of all public goods that are prone to be determined strategically under decentralized fiscal commitments.

### Health 5: Health issues in aging societies

Session Chair: **Carsten Colombier**, Federal Finance Administration

#### The Fiscal Stress Arising from State and Local Retiree Health Obligations

**Byron Lutz, Louise Sheiner**

Federal Reserve Board, United States of America

Virtually all U.S. state and local governments provide health insurance to their retirees, yet these liabilities have been the focus of only limited analysis. The first portion of the paper uses the information contained in the actuarial reports for retiree health plans to reverse engineer the cash flows underlying the liabilities given in the report. Obtaining the cash flows allows us to construct liability estimates which are consistent across governments. We find that the total unfunded accrued liability of state and local governments for retiree health care equals roughly 1/3 of total state and local government revenue. The second portion of the paper places these obligations into context by examining the budget pressures associated with retiree health on a continuing, largely pay-as-you go basis. On average, states could put their retiree health obligations into long-run balance by contributing an additional 1/4 percent of total revenue toward the benefit annually.

#### Longevity, working lives and public finances

**Jukka Lassila, Tarmo Valkonen**

ETLA, Finland

Can longer working lives bring sufficient tax revenues to pay for the growing public health and care expenditure that longer lifetimes cause? We review studies concerning retirement decisions and pension policies, the role of mortality in health and long-term care costs, and errors in mortality projections. We combine key results into a numerical OLG model where changes in mortality have direct effects both on working careers and on per capita use of health and long-term care services. The model has been calibrated to the Finnish economy and demographics. Although there are huge uncertainties concerning future health and long-term care expenditure when people live longer, our simulations show that without policies directed to disability admission rules and old-age pension eligibility ages, working lives are unlikely to extend sufficiently. But, importantly, with such policies it seems quite possible that generations enjoying longer lifetimes can also pay for the full costs by working longer.

#### Is population ageing really dwarfed by advances in medical technology as a driver of healthcare expenditure?

##### Evidence from the Swiss case

**Carsten Colombier**

Federal Finance Administration, Switzerland

Recently it is argued that population ageing has a negligible impact on healthcare expenditure (HCE) and that non-demographic cost drivers, in particular, advances in medical technology are by far more important. This present paper contributes to this debate by first, carrying out a cointegration analysis of the determinants of Swiss HCE and second, projecting Swiss HCE. Our estimations show that advances in medical technology and population ageing are interrelated and both are important drivers of HCE. In addition, the projections demonstrate that in the coming decades population ageing will increase pressure on public finances and the social health insurance. Therefore, one should be cautious to infer that population ageing is dwarfed by medical technology as a driver of HCE. Consequently, policy-makers should focus on both population ageing and advances in medical technology to mitigate cost pressures on public budgets.

#### Understanding the effect of retirement on health using Regression Discontinuity design

**Peter Eibich**

DIW Berlin, University of Hamburg

This paper estimates the causal effect of retirement on health. The Regression Discontinuity design exploits financial incentives in the German pension system for identification. Self-reported health status and measures of physical and mental health are used as dependent variables. The results show an improvement in all health measures upon retirement. I investigate a wide range of health behaviors (e.g. alcohol and tobacco consumption, physical activity, diet and sleep) as potential mechanisms. The results show that retirees use their additional leisure time for behavioral adjustments. Increased leisure-time physical activity appears to be a key mechanism through which retirement affects health.

**3:30pm - 5:30pm**  
A 32, Palazzo Rosso

### PoIEcon 9: Voting

Session Chair: **Andrea Schneider**, University of Muenster

#### A Political Economics Model of Subsistence Levels And The Rise of Populism

**Linuz Aggeborn<sup>1</sup>, Lovisa Persson<sup>2</sup>**

<sup>1</sup>Uppsala University, Sweden; <sup>2</sup>Uppsala University, Sweden

The model of populism that we develop in this paper is a simple electoral accountability model where we have introduced a conflict dimension between public spending on "basic needs" and "moral needs". Some voters are more dependent on basic public spending than others and want a minimum level of basic public goods to be supplied before any resources are put on moral public goods. There are two political parties in our model where one is the establishment's party and the other is a populist party. The established party cares about upholding spending on moral goods even in times of scarce economic resources and the Populist Party never cares about the moral public spending advocated by the established political party. Politicians from the political establishment might choose to pool with a populist politician if the long-term expected utility from being re-elected exceeds the short-term utility from implementing their preferred policy.

#### Complexity of Propositions and Voting Behavior in a Direct Democracy: Evidence from Switzerland

**Sven Resnjanskij, Zohal Hessami**

University of Konstanz, Germany

This paper analyzes the effect of the complexity of direct-democratic propositions on individual participation and voting decisions. Instead of relying on subjective and potentially endogenous survey-based measures of complexity, we construct a novel objective measure of complexity based on information provided in official pre-election information booklets sent to all Swiss households. A large and unique data-set from post-election surveys of each ballot at the federal level in Switzerland since the 1980s allows us to control for respondents' individual characteristics. We find a robust negative effect of ballot complexity on participation. Using a Heckman-selection model to correct for the participation-driven selection bias, we provide empirical evidence for a status-quo bias in the voting decision, i.e. a rejection-biased voting outcome.

#### Sequential Policy Choices and the Missing Response to Reform

**Johannes Becker<sup>1</sup>, Ronald B. Davies<sup>2</sup>, Andrea Schneider<sup>1</sup>**

<sup>1</sup>University of Muenster, Germany; <sup>2</sup>University College Dublin, Ireland

We consider a model in which governments sequentially introduce a policy, e.g. a new tax, labor market standards etc. Individuals may escape this policy by moving abroad. However, since other countries may introduce this policy as well, the migration decision may prove expensive ex post. We consider a situation in which the countries abroad will opt for the policy if there is no response to the policy reform at home. Individuals anticipate if too few of them actually move, the country abroad will introduce the policy -- which makes staying the better option. Thus, it depends on individual beliefs whether the policy reform will lead to costly responses or not.

#### Happy Voters

**Federica Liberini<sup>1</sup>, Michela Redoano<sup>2</sup>, Eugenio Proto<sup>3</sup>**

<sup>1</sup>KOF, ETHZ, Switzerland; <sup>2</sup>University of Warwick, United Kingdom; <sup>3</sup>University of Warwick, United Kingdom

In this paper we investigate whether or not recent initiatives taken by governments and international organizations to come up with indicators of Subjective Well Being (SWB) to inform policy makers go in the same direction as citizens expectations on what policy makers should do. We test retrospective voting hypotheses by using standard measures of SWB as a proxy for utility instead of the commonly used indicators of economic and financial circumstances. Using the British Household Panel Survey Data we find that citizens who are satisfied with their life are more likely to cast their vote in favour of the ruling party, even taking into account ideological preferences. We show that SWB influences voting decision even when the event affecting the SWB is beyond the government's control, like the spouse death.

**3:30pm - 5:30pm**

### PoIEcon 10: Rent-seeking politicians



Room 354, Main Building

Session Chair: **Björn Kauder**, ifo Institute**Petro rents, political institutions, and hidden wealth: Evidence from bank deposits in tax havens****Jørgen Juul Andersen<sup>1</sup>**, **Niels Johannesen<sup>2</sup>**, **David Dreyer Lassen<sup>2</sup>**, **Elena Paltseva<sup>3</sup>**<sup>1</sup>BI Norwegian Business School, Norway; <sup>2</sup>University of Copenhagen, Denmark; <sup>3</sup>SITE, Stockholm and NES, Moscow

Do political institutions limit rent-seeking by politicians? To address this question, we study the transformation of petroleum rents into hidden wealth using unique data on bank deposits in tax havens. We find that petroleum rents are associated with increases in hidden wealth, but only when political institutions are very weak. We also discern an interesting interaction with political risk: events such as elections and domestic conflict are preceded by increases in hidden wealth when political institutions are weak, which is consistent with a view of autocratic rulers as forward-looking rent-seekers whose behavior is constrained by political checks and balances.

**Petro Populism****Gisle James Natvik**, **Ragnar Torvik**, **Egil Matsen**

Norges Bank, Norway

We aim to explain petro populism --- the excessive use of oil revenues to buy political support. To reap the full gains of natural resource income politicians need to remain in office over time. Hence, even a rent-seeking incumbent who prioritizes his own welfare above that of citizens, will want to provide voters with goods and services if it promotes his probability of remaining in office. While this incentive benefits citizens under the rule of rent-seekers, it also has the adverse effect of motivating benevolent policymakers to short-term overprovision of goods and services. In equilibrium politicians of all types indulge in excessive resource extraction, while voters reward policies they realize cannot be sustained over time.

**Just hire your spouse: Empirical evidence from a new type of political favoritism****Björn Kauder<sup>1</sup>**, **Niklas Potrafke<sup>2</sup>**<sup>1</sup>ifo Institute, Germany; <sup>2</sup>University of Munich

We investigate a case of political favoritism. Some members of the Bavarian parliament hired relatives as office employees who were paid using taxpayers' money. We examine whether being involved in the scandal influenced re-election prospects and voter turnout. The results do not show that being involved in the scandal influenced the outcome and voter turnout of the 2013 state elections. We propose three explanations: (i) the Bavarian state election was a test run for the German federal election; (ii) the state government made a quite good job of clarifying failings; (iii) in June 2013, a very heavy bout of flooding eclipsed the political scandal.

**Unconditional love? Pork barrel politics in the absence of electoral incentives****Jon H. Fiva<sup>1</sup>**, **Askill H. Halse<sup>2</sup>**<sup>1</sup>Norwegian Business School; <sup>2</sup>University of Oslo

Pork barrel spending is typically attributed to the strategic behavior of political elites hoping to be electorally rewarded for the provision of pork. We estimate the causal effect of local representation in a closed lists proportional representation system where individual candidates have no clear electoral incentives to favor their hometown. Using data from Norwegian regional governments we still find a strong hometown bias. The probability that a municipality receives transfers from the regional government increases when their representatives in the council are politically aligned with the mayor. To overcome potential endogeneity issues related to representation and spending, we exploit that in close elections it is 'as good as random' what political bloc that gets a seat majority, and this strongly determines which party that gets the mayor.

3:30pm - 5:30pm

A 11, Palazzo Rosso

**Tax 13: Optimal taxation II**Session Chair: **Wojciech Kopczuk**, Columbia University**The choice of personal tax base****Roger Gordon<sup>2</sup>**, **Wojciech Kopczuk<sup>1</sup>**<sup>1</sup>Columbia University, United States of America; <sup>2</sup>UC San Diego

Existing tax bases depend on a broader range of information about each individual than just labor income. The objective of this paper is to lay out theoretically and estimate empirically how to make best use of available information about each individual in addition to earnings, in a setting where the first-best tax would be an ability tax. The theory lays out an equity/efficiency trade off when choosing the tax base. In the empirical work, we find the tax base that is best on equity grounds alone.

We find that the inclusion of dividends and interest income, and a dependents' deduction, in the tax base in roughly their current form can be rationalized simply based on their value in better approximating an ability tax, without any need for supplementary motivations for these provisions. However, the inclusion of mortgage and property tax payments in the list of itemized deductions cannot be defended on these grounds.

**Optimal taxation when people do not maximize well-being****Aart Gerritsen**

Max Planck Institute for Tax Law and Public Finance, Munich

Most of public economics has the tendency to casually equate 'utility' with 'well-being.' This assumption is not presupposed by positive economics but is necessary for issuing policy prescriptions based on observed behavior alone. I derive optimal tax rules when government maximizes well-being, subject to individuals maximizing utility. Compared to a standard optimal tax formula, there is an additional term which depends on the difference between the well-being-based and the utility-based marginal rates of substitution (MRS). I use British life satisfaction data to estimate the well-being-based MRS of leisure for consumption and compare this measure with the utility-based MRS. Low-income workers tend to work 'too little,' while high-income workers work 'too much,' providing a motive for lower marginal tax rates at the bottom and higher rates at the top of the income distribution.

**Optimal Nonlinear Income Taxes with Compensation****Robin Boadway<sup>1</sup>**, **Craig Brett<sup>2</sup>**, **Laurence Jacquet<sup>3</sup>**<sup>1</sup>Queen's University, Canada; <sup>2</sup>Mount Allison University, Canada; <sup>3</sup>THEMA University of Cergy-Pontoise

This paper investigates how an optimal income tax should be designed when individuals differ in both ability, for which they are presumed to be not responsible, and preference for leisure, for which they are responsible. We propose a social objective that allows for a compromise between the principles of compensation and responsibility. This compromise is given a simple parametric form. In a second-best setting, this objective gives rise to countervailing incentives for workers at the lower end of the income distribution, thereby providing a rationale for marginal wage subsidies. At the upper end of the income distribution, the optimal tax schedule resembles the maximin optimum.

**Heterogeneous interest rates as a reason for capital income taxation****Kevin Spiritus**

KU Leuven, Belgium

Abstract We extend the Atkinson-Stiglitz model to include heterogeneous rates of return. We find that the optimal tax on household income from savings should be higher, the more the rate of return is correlated with ability. Next we test empirically the hypothesis that such correlation is present, using panel data from PSID.

3:30pm - 5:30pm

A 33, Palazzo Rosso

**Tax 14: Taxation and household behavior**Session Chair: **Tuomas Matikka**, Government Institute for Economic Research VATT**Public Debt Burdens and Demand Shortage****Takayuki Ogawa<sup>1</sup>**, **Yoshiyasu Ono<sup>2</sup>**<sup>1</sup>Osaka University of Economics, Japan; <sup>2</sup>Osaka University, Japan

In a Diamond-type overlapping-generations setting public debt issuance places no burden on future generations including those who repay the

debt if prices and wages are fixed and unemployment occurs in the periods in which public bonds are issued or repaid. Whether the collected fund is spent on government purchases or transfers to the current generation, public bond issuance stimulates aggregate demand and creates additional employment of future generations, which yields additional income that is large enough to cover their tax burden.

### A Test of the Ricardian Equivalence Proposition in a Life-Cycle Consumption Experiment

**Davud Rostam-Afschar<sup>1</sup>, Thomas Meissner<sup>2</sup>**

<sup>1</sup>Freie Universität Berlin, Germany; <sup>2</sup>Technical University of Berlin, Germany

This paper tests whether the Ricardian Equivalence proposition holds in a life cycle consumption laboratory experiment. This proposition is a fundamental assumption underlying numerous studies on intertemporal choice and has important implications for tax policy. Using nonparametric and panel data methods, we find that the Ricardian Equivalence proposition does not hold in general. Our results suggest that taxation has a significant and strong impact on consumption choice. Over the life cycle, a tax relief increases consumption on average by about 22% of the tax rebate. A tax increase causes consumption to decrease by about 30% of the tax increase. These results are robust with respect to variations in the difficulty to smooth consumption. In our experiment, we find the behavior of about 62% of our subjects to be inconsistent with the Ricardian proposition. Our results show dynamic effects; taxation influences consumption beyond the current period.

### Unwilling, unable or unaware to respond? Decomposing behavioral responses to tax incentives

**Tuomas Matikka, Tuomas Kosonen**

Government Institute for Economic Research VATT, Finland

This paper characterizes how different behavioral factors affect individual responses to different tax incentives. We hypothesize that the characteristics of different tax systems and institutions create different reasons for responding and not responding. Our analysis compares the significance of inability to respond and awareness of the tax rules with the underlying elasticity, the willingness to respond. Within the same population and overall Finnish institutional setting, we estimate behavioral responses to kinks in the marginal tax rate schedule as well as notches and other sharp discontinuities related to individual and household social benefits. We find that taxpayers do not respond at all to small changes in income tax incentives, but do respond to stronger incentives. The patterns of responding support the hypothesis that some taxpayers are unable to respond even to large incentives, and some are unaware of tax incentives.

### Personal Income Taxes, Profit Taxes, Migration, and Trade: An Integrated Model and Quantitative Analysis

**Doina Maria Radulescu, Sergey Nigai, Peter Egger**

ETH Zurich, Switzerland

This paper evaluates the impact of personal and corporate income taxes on the location and migration decisions of workers and the sales of goods in open economies. It sets up a structural multi-country general equilibrium model of heterogeneous workers and firms.

Heterogeneity of workers roots in idiosyncratic costs or benefits from migration, while heterogeneity of firms roots in their efficiency. At the factor market, the model is capable to explain i.a. aggregate zero or positive flows of migrants between all pairs of countries in the model.

The model is structurally estimated on

bilateral migration and goods trade among 143 economies in the year

2000. The empirical model is a generalized structural non-linear selection model.

3:30pm - 5:30pm

A 34, Palazzo Rosso

### Tax 15: Local taxes and policy

Session Chair: **Tanja Kirn**, Universität Liechtenstein

### Comparative Tax Information and the Choice of the Local Business Tax Rate

**Thiess Büttner<sup>1</sup>, Axel von Schwerin<sup>2</sup>**

<sup>1</sup>University of Erlangen-Nuremberg, Germany; <sup>2</sup>University of Erlangen-Nuremberg, Germany

This paper explores the role of comparative tax information in a setting with decentralized tax policy and mobile investors. We argue that jurisdictions, that are concerned about the effects of their current decisions on investors' expectations, may deliberately set the tax rate equal to some reference point of the empirical tax distribution, in order to provide a signal that effectively reduces the expected tax rate. Using data on German municipalities, the paper provides evidence showing that the empirical pattern of local tax policy is consistent with the theoretical predictions. In particular, we argue that signaling can explain the apparent anomaly in the tax policy of the municipalities, which despite their tax autonomy often set identical tax rates.

### Fiscal equalization with hidden information and hidden action

**Tanja Kirn**

Universität Liechtenstein, Liechtenstein

This paper studies the local tax policy setting behavior within a federal system under hidden information and hidden action by considering the incentive effects arising from elections and yardstick competition. It differs from earlier contributions by combining auction theory with a modern approach of fiscal federalism, based on agency theory. In this framework serves the yardstick competition as baseline model that leads to a Pareto efficient outcome, despite private information about the costs of service provision and rent-seeking activities of local policy makers. However, a first best solution is missed, if the local governments behave non-myopic. Despite this are both results from the perspective of principals (central level, local electorate) more advantageous than the outcome of a singular yardstick competition, which is in this comparison only third-best.

### Fiscal Strategic Interaction and Political Seniority in Portugal

**Catarina Alvarez<sup>1</sup>, Susana Peralta<sup>2</sup>**

<sup>1</sup>Universitat de Barcelona and Institut d'Economia de Barcelona, Spain; <sup>2</sup>Nova School of Business and Economics, Portugal

This paper provides empirical evidence for the impact of political seniority on the degree of fiscal interaction among local governments. Our main hypothesis is that an incumbent who is in office for a larger number of terms is less politically sensitive to how fiscal policy is set in neighboring jurisdictions. In Portugal, until 2013, mayors were not facing binding term limits and could be in office indefinitely, providing us a great laboratory to test this hypothesis empirically. We study property tax-setting decisions of 278 Portuguese municipalities during the period 2003-2011 and we identify a larger interaction effect in municipalities where mayors are in office for the first or second term than in those governed by mayors in their third or higher term.

### Electoral Rules for Mayors and Incentives to Pork-Barrel: Quasi-Experimental Evidence from German Municipalities

**Zohal Hessami**

University of Konstanz, Germany

This paper exploits a natural experiment in Hesse where a reform of the electoral rule from mayor appointment by the local council towards direct mayor elections was introduced during a phase-in period from 1993 to 1998. The end of the term of the last appointed mayor varies across municipalities for exogenous historical reasons and determines the timing of the switch in a particular municipality. Difference-in-difference estimations for 421 municipalities over the period from 1981 to 2010 reveal that municipalities with a directly elected mayor attract 5% more investment transfers from the state tier. This effect only materializes in the election year which suggests that mayors under the new electoral rule put more effort into grant applications for highly visible infrastructure projects in order to increase their re-election probability.

3:30pm - 5:30pm

A 21, Palazzo Rosso

### Tax 16: Consumption tax

Session Chair: **Benjamin Lockwood**, University of Warwick

### The Impact of Including, Adding and Subtracting a Tax on Demand

**Naomi Feldman<sup>1</sup>, Bradley Ruffle<sup>2</sup>**

<sup>1</sup>Federal Reserve Board, United States of America; <sup>2</sup>Ben Gurion University and Wilfrid Laurier University,

We test the equivalence of tax-inclusive, tax-exclusive and tax-rebate prices through a series of experiments differing only in their handling of the tax. Subjects receive a cash budget and decide how much to keep and how much to spend on various attractively priced goods. Subjects spend significantly more under tax-exclusive prices whereas total purchases under tax-

inclusive and tax-rebate prices are similar. These results persist throughout most of the ten rounds despite feedback and the ability to revise

purchases. The asymmetric response to tax liabilities and rebates highlights consumers' ability both to internalize and to willfully ignore hidden price components.

JEL: C91, H20, H31

#### VAT Notches

**Benjamin Lockwood<sup>1</sup>, Li Liu<sup>2</sup>**

<sup>1</sup>University of Warwick, United Kingdom; <sup>2</sup>CBT, University of Oxford, UK

This paper is the first to theoretically and empirically analyze the effect of VAT registration notches on firm behavior. Using UK administrative data, we show that there is excess bunching of firms below the registration threshold. Adjusting for optimization frictions and voluntary registrations, we estimate the upper bound of the bunching ratio to be around 4.01 -- 5.84 during the sample period. We further split the sample to analyze heterogeneous responses to the tax notch. Finally, we show theoretically that the turnover of the firm is related to a sufficient statistic of the tax system; this theoretical relationship can be used to calculate the elasticity of the VAT tax base with respect to this sufficient statistic.

#### The inefficiency of reduced VAT rates: Evidence from restaurant industry

**Jarkko Tapio Harju<sup>1</sup>, Tuomas Kosonen<sup>2</sup>**

<sup>1</sup>VATT, Finland; <sup>2</sup>VATT, Finland

This paper provides estimates of the effects of consumption taxes on prices, demand and employment for restaurant services. We utilize a large VAT reforms affecting restaurant meals, where the VAT rate was cut in July 2010 in Finland and in January 2012 in Sweden. By comparing with restaurants in neighboring countries, these reforms offer a natural experimental approach. The results indicate that restaurants reduced their prices by only little. On average, the price reductions are approximately a quarter of the full pass-through. Remarkably, at the same time a majority of restaurants did not reduce their prices at all. We do not observe any increases in the quantity of meals sold or in wage sums paid to employees. These results imply that the demand for restaurant meals is rather inelastic and the main objective of the reforms of increasing employment in the industry was not fulfilled.

#### The Long Arm of the European VAT, Exemplified by the Dutch Experience

**Sjibren Chossen, Leon Bettendorf**

CPB Netherlands Bureau for Economic Policy Analysis, Netherlands, The

The harmonized EU VAT has many shortcomings, notably the numerous exemptions and the differentiated rate structures. The exemptions distort input choices and outsourcing policies; they result in the overtaxation of VAT-liable businesses and the undertaxation of consumers. Along with out-of-scope activities, exemptions tend to skew competitive conditions vis-à-vis the private sector. The reduced rates are an ill targeted tool for reducing the regressivity of the VAT. In view of these design failures, the EU VAT is in danger of becoming an anachronism. It does not reflect the lessons that can be learned from countries with modern VATs. Fortunately, the European Commission is evaluating the performance of the common VAT. This paper contributes to the debate by illustrating its shortcomings with reference to the Dutch experience. The paper does not break new ground, but provides a disconcerting picture of the excess burden of a major revenue source.

3:30pm - 5:30pm

A 23, Palazzo Rosso

#### Welfare 13: Retirement

Session Chair: **Monika Büttler**, University of St. Gallen

##### The role of firms in retirement decisions

**Wolfgang Frimmel<sup>1</sup>, Thomas Horvath<sup>2</sup>, Mario Schnalzenberger<sup>1</sup>, Rudolf Winter-Ebmer<sup>1</sup>**

<sup>1</sup>Johannes Kepler University Linz, Austria; <sup>2</sup>Wifo Vienna, Austria

In general, retirement is seen as a pure labor supply phenomenon, but firms can have strong incentives to send expensive older workers into retirement. Based on the seniority wage model developed by Lazear (1979), we discuss steep seniority wage profiles as incentives for firms to dismiss older workers before retirement. Conditional on individual retirement incentives, e.g. social security wealth or health status, the steepness of the wage profile will have different incentives for workers as compared to firms when it comes to the retirement date. Using an instrumental variable approach to account for selection of workers in our firms, we find that conditional on individual retirement incentives, firms with higher labor costs for older workers are associated with lower retirement age.

##### Income tax and retirement schemes

**Philippe Chone<sup>2</sup>, Guy Laroque<sup>1</sup>**

<sup>1</sup>University College London, United Kingdom; <sup>2</sup>ENSAE-CREST

This article aims at understanding the interplay between pension schemes and tax instruments from a redistribution perspective. We are modeling extensive labor supply and retirement decisions over the life cycle, assuming a stationary environment with overlapping generations and perfect financial markets. Agents are differing in the way their productivity and opportunity cost of work evolve over their lifetime. At each date, they decide whether or not to participate in the labor force.

Considering first the fiscal instrument, we characterize the shape of the optimal tax schedule and exhibit circumstances under which labor supply is distorted upwards. Second, as regards pensions, we describe various schemes, where pension transfers may depend on the retirement age, on the time spent working, or on (before or after tax) lifetime earnings. We study the interplay of the tax and pension instruments and emphasize the potential role of pensions in redistributing lifetime incomes.

##### The introduction of disincentives for early retirement and its effect on labor market participation

**Daniel Kemptner<sup>1</sup>, Timm Boenke<sup>2</sup>, Holger Luethen<sup>1,2</sup>**

<sup>1</sup>DIW Berlin, Germany; <sup>2</sup>FU Berlin, Germany

We evaluate the effectiveness of disincentives that have been introduced for early retirement in Germany. Therefore, we set up a detailed model of the German social security and tax system with special attention to the PAYG-pension system. Building on the fact that the institutional changes were phased in, we are able to estimate the parameters of a structural dynamic retirement model using high quality administrative data. This allows us to answer the question, whether and to what degree disincentives are able to steer retirement behavior of German pensioners. We also discuss the implications for the financial stability of the PAYG-pension scheme and investigate distributional effects. We try to give some insights on how a complementary private old age insurance plan (e.g. a life annuity) would have to look like, if the pre-reform level of old age income is to be retained.

##### Financial work incentives for disability benefit recipients: Lessons from a randomized field experiment

**Monika Büttler<sup>1</sup>, Eva Deuchert<sup>1</sup>, Michael Lechner<sup>1</sup>, Stefan Staubli<sup>2</sup>, Petra Thiemann<sup>1</sup>**

<sup>1</sup>University of St. Gallen, Switzerland; <sup>2</sup>University of Calgary, Canada

This paper analyzes a conditional cash program that financially incentivizes work related reduction of disability benefits. A randomized group of DI beneficiaries receive the offer to claim a payment ("seed capital") of up to CHF 72,000 (USD 71,000) if they take up or expand employment and reduce DI claims. The paper presents the results of the short-term evaluation by analyzing documented interest in taking-up seed capital. Overall, interest in taking-up the financial incentive is low at only 3%. Individuals close to cash-cliffs react more on seed capital but the overall magnitude is small. Our results suggest that work-disincentives imposed by cash-cliffs are unlikely the main driver for low employment and outflow from the Swiss disability insurance system, despite the fact that the partial disability insurance system generates a non-linear budget set, and bunching behavior at cash-cliffs are observed prior implementation of seed capital.

3:30pm - 5:30pm

A 24, Palazzo Rosso

#### Welfare 14: Pension systems

Session Chair: **Joachim Thøgersen**, Oslo and Akershus University College of Applied Sciences

##### Life time pension benefits versus life time contributions

**Nils Martin Stoelen, Dennis Fredriksen**

Statistics Norway, Norway

Over the life course members of an insurance system normally will contribute by payments when in working age, and later receive pension

