ECONOMIC POLICY IN A DYNAMIC ENVIRONMENT
Bratislava, May 27-28, 2016

Book of Abstracts

Keynote speakers:

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Parallel Sessions V

Wage Rigidities and Jobless Recovery in Slovakia: New Survey Evidence

Peter Tóth
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The aim of this paper is to test the determinants of labour cost adjustments by Slovak firms during the recent recovery period from 2010 to 2013. We use a new dataset from a firm-level survey, which was conducted in cooperation with the Wage Dynamics Network of the European Central Bank. The main findings are broadly in line with macroeconomic data, such as the uneven recovery of demand across sectors, stagnation of employment and increase in wages. Our estimates highlight the importance of demand shocks in explaining labour cost adjustments. Further, the role of collective agreements and wage rigidities seems crucial, which forces firms to downsize their labour inputs rather than to cut wages. Finally, we find evidence that large and foreign owned firms face fewer barriers to adjusting their labour costs. The mentioned factors seem to be the main explanation for the recent jobless recovery in Slovakia during 2010 to 2013.

The incentive effects of sickness absence compensation

Marton Csillag
Budapest Institute for Policy Analysis

This paper examines the incidence and the number of days spent on sick leave following the halving of the maximum sick benefit provided by statutory health insurance in Hungary. This policy change in 2011 sharply decreased benefits for a large group of high earners, while leaving the incentive to claim sickness benefits unchanged for lower earners, providing us with a "quasi-experimental" setup to identify the incentives effect of sickness benefits. We used a difference-in-difference type methodology to evaluate the short-term effect of the reform. We relied on high-quality administrative data and analysed a sample comprised of prime-age male employees with high earnings and stable employment. Our results show that while the incidence of sick leaves decreased only moderately, the number of days spent on sick leave fell substantially for those experiencing the full halving of benefits. Estimating the response of the number of sick days with respect to the fall in sickness benefits, we find a significant elasticity of 0.8. We found considerable heterogeneity in the behavioural response, with older and those in poor health showing a large reduction in length of sick leave.

Actuarially Neutral Adjustments in the Austrian Pension System

Denes Kucsera
Agenda Austria

Michael Christl
Agenda Austria

This paper studies actuarial neutrality in the Austrian pension system. It is often argued that actuarial neutrality reflects an incentive for people to retire. We show, that there are almost no financial incentives within the Austrian pension corridor when we use the traditional definition of actuarial neutrality on gross earnings. Considering taxes in our analysis of actuarial neutrality, the results suggests that financial incentives for early retirement stem mainly from the Austrian tax system and not from the pension system itself.

Grandmothers' Labor Supply

Wolfgang Frimmel
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Johannes Kepler University Linz

Rudolf Winter-Ebmer
Johannes Kepler University Linz

The birth of a child may not only have consequences for parental labor supply, but also affect the labor supply of grandparents. While the joint determination of maternal labor supply and fertility decisions is well studied in the literature, we lack a thorough causal analysis of labor supply effects of becoming a grandmother. Based on administrative data covering the universe of Austrian births and workers, we employ two different identification strategies to estimate the effect of a first and a further grandchild on grandmothers' labor supply. A timing-of events approach shows that the birth of the first child significantly increases the probability of labor market exit. Exploiting the effect of twin-births on the number of grandchildren, we show that an increase in the intensive margin also reduces grandmaternal labor market participation. Such an analysis is important, because it investigates side-effects of the existence of formal child-care facilities on labor supply and early retirement behavior of elderly workers in times of serious demographic pressure on public pensions systems.

Demand-side economics in times of high debt

Monika Köppl-Turyna
Agenda Austria

Hanno Lorenz
Agenda Austria

We analyze the effectiveness of an increase in government consumption for stimulating growth for diverse levels of public debt in the European Union. We conclude, that growth rate can be stimulated in the short run by an increase in government consumption but only at low levels of public debt. Moreover, we find that an increase in intermediate consumption is more effective than an increase in compensation of public employees in stimulating output growth.

An empirical assessment of the international linkages of inflation-output dynamics: A global VAR application for Pakistan

Muhammad Ayyoub
Johannes Kepler University, Linz

The key purpose of this study is to analyze the relationship between inflation and output dynamics in a global macroeconomic framework, by featuring the GVAR approach. We have empirically examined the international linkages to account for cross-country inflationary spillovers from 35 trading partners of Pakistan, over the period 1979-2014. To deal with the significant global inter-dependencies, we have computed the average pairwise cross-section correlations and the residuals for our GVAR model. Our findings show that after taking into account the impact of foreign-specific variables, inflation (at lower levels) is a significant driving force for output variations. By utilizing the general impulse response functions, we have also investigated the implications of the effects of shocks to foreign variables. Our GIRF results show that the US GDP and US interest rate shocks are transmitted rapidly, but put forward no significant effects in Pakistan. We are the first to add a GVAR empirical evidence on the issue of "inflation–output growth nexus" in developing economies, emphasizing on the economy of Pakistan.

Fiscal Policy Matters: A New DSGE Model for Slovakia

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Council for Budget Responsibility

The paper sets out a DSGE model designed, calibrated and estimated to match key stylized facts about the Slovak economy. In this paper we introduce and discuss model tools that help us in assessing the economy with its key features - membership in the monetary union, observed wedge between real growth rates of trade and domestic economy, sectoral relative prices, trade openness, gradual convergence towards more developed countries and a mechanism allowing the long-run economy appreciation. The model includes a detailed fiscal policy block that allows a thorough analysis of fiscal policy measures and evaluate country's fiscal policy credibility using interest rate spreads. The estimated model is employed to identify the structural economic shocks that drive the economy and to study the response of the economy to a technology shock and to a foreign demand shock under alternative fiscal adjustment scenarios. We find that a well-designed programme involving increases in transfers as well as tax cuts can stabilize the economy in the short run and improve longer-term growth prospects following a shock with adverse fiscal implications. We analyse the consequences of fiscal policy shocks in and away from the steady state of the model. The exercise yields implied fiscal multipliers that are in line with standard literature. Raising taxes on employment is particularly bad for the real economy, especially in the long run, whilst cutting government investment to private sector and social transfers for the Ricardian households are the least harmful way of reducing spending.

Heterogeneous Effects of Tariff and Nontariff Policy Barriers in General Equilibrium

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ETH Zürich

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ETH Zürich

The quantitative role of trade impediments for the volume cross-border business transactions is key to understand the economic value of countries' openness. The inception of the General Agreement of Tariffs and Trade and the foundation of the World Trade Organization had been unprecedented milestones in the process of the coordinated liberalization of policy barriers to cross-border business activity. While this view is uncontested, there is relatively little profound knowledge of what trade-policy liberalization is worth for the following reasons:

1. The debate about the quantitative role of trade impediments is largely focused on geography and culture and much less on trade policy. 2. Where trade policy is concerned, it is mostly only crudely measured in terms of a binary membership versus non-membership in free trade agreements (treating all such agreements and, thereby, nonmembers and nonmembers, respectively, the same). 3. Where trade policy is concerned, it is largely focused on tariff barriers, while mostly ignoring non-tariff issues.

Leading assumptions in the literature on the quantitative role of (policy or non-policy) trade barriers for economic outcome are that the partial effect is linear and homogeneous for all business partners (the total effect being assumed to be nonlinear due to partial-equilibrium and general-equilibrium indirect effects); and that the effect is exogenous.

Clearly, there are exceptions from this practice. E.g., Eaton and Kortum (2002) and Henderson and Millimet (2008) implicitly and explicitly, respectively, consider nonparametric effects of geography, both finding evidence of log-linearity about partial effects. And the cottage literature on the role of trade agreement membership for economic outcome explicitly considers the self-selection of countries into such agreements (see Baier and Bergstrand, 2007, 2009, though, with the exception of Egger, Larch,

Staub, and Winkelmann, 2012, mostly in reduced-form settings).

This customary approach used in the vast majority of empirical studies on trade barriers in international economics may lead to biased quantitative effects of trade policy for two reasons. First, ignored nonlinear direct effects may lead to a downward bias in the degree of heterogeneity of total effects of trade policy across countries and country pairs (as well as sectors). Second, ignored endogenous effects may lead to a bias of the magnitude of average as well as local (country-, country-pair-, or sector-specific) effects of policy. This paper puts forward a quantitative analysis which is aimed at addressing these two issues in a unified framework. In an effort to quantify marginal effects of potentially endogenous tariff and non-tariff policy barriers to trade on economic outcome, we provide evidence of a large degree of nonlinearity of the partial effects of nontariff barriers and, to a lesser extent, also of tariff barriers. We allude to the reasons for such nonlinearities in the subsequent section. This usually ignored nonlinearity and heterogeneity adds substantially to the heterogeneity of total effects of marginal changes in trade policy.

The identification of heterogeneous partial responses of trade flows to endogenous tariff and nontariff trade-policy barriers in this paper rests on two pillars. One is the notion of weak unconfoundedness of trade-policy effects on trade flows conditional on all fundamental drivers of trade flows (productivity, factor endowments, number of households, etc.), as suggested by general equilibrium work on trade policy (see, e.g., Bond, 1988; Bond and Syropoulos, 1996; Bagwell and Staiger, 1997, 2004; Bond, Riezman, and Syropoulos, 2004). The second one is the flexible – parametric or nonparametric – relationship between trade-policy barriers and trade flows. These two ingredients support the use of a generalized-propensity-score approach to estimating the flexible behavioral response of interest. The approach is fully integrated into a customary general equilibrium model of bilateral trade with multiple sectors. There is an invaluable benefit from this integration along two lines. First, such a model helps decomposing data on trade flows in a way so that – prior to estimation and in conjunction with available data – all exogenous drivers of bilateral trade flows can be isolated. As a consequence, tariff and non-tariff trade-policy variables may be conditioned on (filtered through) those variables, and residual terms which are unrelated to fundamental drivers of trade may be isolated. The latter may be used to assess the exogenous relationship between trade-policy variables and trade flows in a flexible, second step.

The main findings of the present study may be summarized as follows. First, we provide evidence that there is support for the assumption that, conditional on the sector-country-pair-specific fundamental drivers of trade, trade policy appears indeed exogenous. Second, we illustrate that there is evidence of log-nonlinearity in the relationship between trade policy and trade flows, in particular in the nontariff-barrier domain but, to a lesser extent, also with regard to (ad-valorem) tariff rates. This nonlinearity and heterogeneity of partial effects of trade-policy variables on trade flows add substantially to the partial- and general-equilibrium heterogeneity of total effects of trade policy on trade flows.

The remainder of the paper is organized as follows. The subsequent section reviews work in international economics which supports a log-nonlinear relationship between trade-policy and other trade-cost measures on the one hand and bilateral trade flows on the other hand. Section 3 sketches a customary quantitative model of trade in many sectors and countries. Section 4 outlines the methodological approach towards endogeneity of trade policy and its flexible, heterogeneous partial effect on economic outcome. Section 5 discusses the data and describes them through the lens of the theoretical model. Section 6 provides a summary of the estimation results under various sets of assumptions and a broad comparison of different sets of assumptions – linearity versus nonlinearity of partial trade-policy effects; alternative versions of flexible functional forms; etc. Most importantly, this section illustrates the relative importance of the heterogeneity of partial trade-policy effects for the heterogeneity of total

effects, and it illustrates how ignoring this dimension of heterogeneity affects the insights about quantitative effects of trade policy. The last section concludes with a brief summary.

The real economy effects of cross-border financial flows in the euro area

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The nearly exclusive explanation for current account imbalances in the euro area blames real economy differences between countries, prominently the competitiveness of the participating states. This essay questions the common opinion that wage policy is crucial for rebalancing the European economies. This essay attempts to unfurl the real economy processes from the perspective of money and finance. This essay identifies an interregional asset-price-interest mechanism at work in the monetary union: A general change in the state of confidence provokes asset prices and the effective long-run interest rate to change and to affect aggregate demand and trade flows. A change in competitive positions of countries follows as the second-round effect. The policy implications prefer a downscaling of the financial sector against government interventions into wage formation.

Decomposing Euro Area Sovereign Debt Yields into Inflation Expectations and Expected Real Interest Rates

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Quantitative easing conducted by European central bank to fight persisting risks of deflation is drawing an attention of increasing number of empirical studies. Moreover, effectiveness of monetary policy at near zero inflation rates reveals lot of issues on whether interest rates really have a lower bound around zero percent. As a result, traditional views on the role of inflation expectations and expected real interest rates in the long-term interest rates determination face the challenge of fundamental revision. In the paper we analyze relative contributions of inflation expectations and expected real interest rates to long-term interest rates on government bonds leading path as well as their responses to both types of shocks in the Euro Area member countries using SVAR methodology. We also decompose long-term interest rates into transitory and permanent components. Our research revealed considerable differences in the role of inflation expectations and expected real interest rates shocks in determining long-term interest rates between core and periphery countries of the Euro Area. The crisis period even intensified this trend.

Does Euro Introduction Ensure Lower Volatility of the Sovereign Bonds Markets of the New Euro Area Members?

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Economic and Monetary Union (EMU) represents a major step in the integration of European Union (EU) economies involving the coordination of fiscal and economic policies, a common monetary policy, and a com-

mon currency. A very intense euro area enlargement during the last two decades rises the question about the impact of the euro introduction on the volatility of the sovereign bonds markets of the new euro area members (especially the Central and Eastern European Countries (CEECs)). Since 2007 five CEECs joined the euro area and the euro adoption reduced sovereign bonds interest rates and credit default swap (CDS) prices of the new euro area members due to a decrease in foreign exchange risk, and positively affected the CEECs' credit ratings. However, the question about the impact of euro introduction on volatility of the sovereign bonds markets of the new euro area members is still open. The objective of this study – to assess the impact of the euro introduction on volatility of the sovereign bonds markets of the new euro area members. The research methods: the systemic, logical and comparative analysis of the scientific literature, Dynamic Conditional Correlation Generalized Autoregressive Conditional Heteroskedasticity model (DCC-GARCH), Generalized Impulse Response analysis, and Cholesky Forecast Error Variance Decomposition analysis. The empirical results show that the announcement of positive convergence report and the euro introduction in the new euro area members did not manifested itself automatically in the short term and last into the long term (except in Latvia and Lithuania). This reaction of the financial markets participants could be explained by the fact that most of the new euro area members (Slovenia, Cyprus, Malta, and Slovakia) introduced euro in 2007-2009 during the global financial crisis. The empirical results confirmed that the new euro area members are still very sensitive to shocks in other CEECs sovereign bond markets. However, new euro area members became less sensitive to the external shocks after the introduction of euro (except Latvia and Lithuania).

Monetary Facts Revisited

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Bank for International Settlements

This paper uses a cross-country database covering 46 economies over the post-war period to revisit two key monetary facts: (i) the long-run link between money growth and inflation and (ii) the link between credit growth and financial crisis. The analysis reveals that the former has weakened over time, while the latter has become stronger. Moreover, the money-growth inflation nexus has been stronger in emerging economies than in advanced economies, while it is the other way round for the link between credit growth and financial crises. These results suggest that there is an inverse relationship between the two monetary facts. The money growth-inflation link is weaker in regimes characterised by low inflation and highly liberalised financial systems, while the reverse holds true for the nexus between credit growth and financial crisis.

The Measurement of Individual Risk Attitudes in the Lab and in Reality

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Cary Deck
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Controlled laboratory experiments have become a generally accepted method for studying economic behavior, but there are two issues that regularly arise with such work. The first pertains to the ability to generalize experimental results outside the laboratory. While laboratory experiments are typically designed to mimic naturally occurring situations, ceteris paribus comparisons are rare. Using data from a promotional campaign by a bank and a matching laboratory experiment, we find similar patterns of risk taking behavior controlling for gender and age. The second issue pertains to the impact that the payment procedure in an experiment

has on observed risk taking behavior. Specifically, we compare behavior on a risk taking task where that is the only task and payment is assured, where it is one of several similar tasks of which one will be randomly selected for payment, and where it is the only task but there is only a small probability of receiving payment. We find similar behavior across these three payment procedures.

Where Power Resides: Evidence from the Chairman's Paradox

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We investigate the effects of voting power in a committee in which one member (the chairman) holds, on top of a regular vote, also the power to break ties. In contrast to the equilibrium prediction under strategic voting, known as the Chairman's Paradox, experimental data reveals that the tie-breaking power of the chairman is large and real. The chairman is able to induce her preferred outcome much more often than predicted, but only partially because of exercising tie-breaking power directly. The advantage of the chairman is largely determined by the limited strategic sophistication of committee members and the chairman's salient position in the committee.

Nobel Beauty

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Brunel University

Boontarika Paphawasit
Brunel University

Cigdem Borke Tunali
Istanbul University

We consider the effect of physical attractiveness, as assessed based on publicly available pictures of top scientists, on their probability of winning the Nobel Prize. We find that attractiveness is negatively correlated with the probability of being awarded the Nobel, with the magnitude of this effect being not negligible. We discuss potential mechanisms that could explain this result.

Quantile Cross-Spectral Measures of Dependence between Economic Variables

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In this paper we introduce quantile cross-spectral analysis of multiple time series which is designed to detect general dependence structures emerging in quantiles of the joint distribution in the frequency domain. We argue that this type of dependence is natural for economic time series but remains invisible when the traditional analysis is employed. To illustrate how such dependence structures can arise between variables in different parts of the joint distribution and across frequencies, we consider quantile vector autoregression processes. We define new estimators which capture the general dependence structure, provide a detailed analysis of their asymptotic properties and discuss how to conduct inference for a general class of possibly nonlinear processes. In an empirical illustration we examine one of the most prominent time series in economics and shed new light on the dependence of bivariate stock market returns.

Measuring the frequency dynamics of financial connectedness and systemic risk

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Financial risk management has generally focused on aggregate connectedness, overlooking its short-term, medium-term, and long-term sources. We argue that the frequency dynamics is insightful for studying the connectedness as shocks with heterogeneous frequency responses create linkages with various degrees of persistence. Such connections are important for understanding possible sources of systemic risk, but remain hidden when aggregate measures of connectedness are used. To estimate short-term, medium-term, and long-term financial connectedness, we propose a general framework based on spectral representation of variance decompositions. In an empirical application we document rich dynamics of connectedness in US market risk with short-term connections due to contemporaneous correlations, as well as significant weekly, monthly, and yearly connections playing role. Hence financial market clears part of the information although permanent changes in investors' expectations having longer-term responses are non-negligible.

Measurement of common risk factors: A panel quantile regression models for returns and volatility

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In this paper, we propose to measure the common risk factors using panel quantile regression models for returns and volatility. By exploring the fact that volatility crosses all quantiles of the return distribution, and employing panel quantile regressions, we focus on the commonalities in the quantiles of the returns in a selected portfolio. Results of our research are important for correct identification of the sources of systemic risk, and will be particularly attractive for relatively high dimensional applications for dimensionality reduction.

Networks of volatility spillovers among stock markets

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In our network analysis of 40 developed, emerging and frontier stock markets during the period 2006 – 2014 we describe and model the occurrence of volatility spillovers during both the crisis and more tranquil periods. The resulting interconnectedness of markets is modelled by fitting a spatial model, incorporating several exogenous characteristics. We confirm the presence of significant temporal proximity effects between markets, and also somewhat weaker temporal effects with regards to the US equity market; the later the markets trade relative to each other (or US) the less likely are volatility spillovers. The volatility spillovers also show high degree of interconnectedness, measured by high spatial autocorrelation. This is further confirmed in spatial regression models, where it is shown that indirect effects are much stronger then direct effects, i.e. market related changes on "neighboring" markets (within a network) have larger effects on volatility spillovers than changes on the given market by itself. Most of our results support general economic intuition, such as the magnitude of spillovers increasing with increasing market size, market liquidity and openness in terms of ratio of export to GDP.

EU-Accession, Domestic Market Structures, and Firm Level Productivity

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WIFO

In this paper we argue that changes in the EU-membership status of the countries in Central and Eastern Europe led to less concentrated markets. This is due to the implementation of competition policy and other pro-competitive policies embedded in the Community Acquis, the body of European Union law. A regression analysis using data on 39,646 firms from six survey waves between 2002 and 2013 finds EU-accession to lower the degree of market concentration that firms that compete domestically perceive. Less concentrated markets are associated with higher productivity levels, also when considering concerns about endogeneity. In addition, EU-membership leads to a decrease in the variance of the productivity measure across firms.

Gains from horizontal collaboration: The case of lift-linked ski areas in winter sport destinations

Martin Falk
WIFO

This paper investigates the local impact of expansions and new lift linkages among neighbouring ski areas. The outcome variable is measured as overnight stays based on data from about 200 winter sport destinations pooled over the period 1997 to 2013. By the use of the difference-in-differences (DiD) method combined with propensity score matching, we find that new lift linkages or expansions lead to an eight percent increase in overnight stays in the subsequent winter season. Furthermore, standard DiD estimates with covariates show large heterogeneity in the causal effect of lift linking and expansion on overnight stays. For already very large ski lift networks there is no effect on overnight stays. Lift-linking that only connects existing ski slopes rather than exploits new terrain does not lead to local gains measured as overnight stays. In addition, the effects are larger for the small connecting village than for the principal ski resort of the system ("acquirer"). Finally, impacts on overnight stays seem to be strongly declining over time. Future plans for lift linkages should therefore be reconsidered.

Size, Subsidies and Technical Efficiency of Austrian Biogas Plants

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The aim of this paper is to measure the efficiency of biogas plants in Austria and identify causes of inefficiency. Data Envelopment Analysis (DEA) is applied on a representative sample of 86 biogas plants covering about one third of the installed capacity in Austria. By comparing each plant with all other plants, DEA provides a relative performance measure and identifies the plants operating efficiently. In a second-stage regression analysis the effects of environmental variables and subsidies on efficiency are investigated. The main results are: i) 35 % of biogas plants in our sample are technically efficient, 40 % are scale efficient and 50 % are purely technically efficient; ii) small biogas plants (*leq* 100 kW) are scale inefficient exhibiting increasing returns to scale; iii) plants with an enclosed digestate storeage unit are more efficient; iv) the relationship between pro-

duction subsidies and pure technical efficiency is significantly negative; v) the correlation between investment subsidies and pure technical efficiency is negative and insignificant. The results are consistent with the hypothesis that production subsidies provide a disincentive to managerial effort of plant operators.

With or Without Subsidy: Analysis of Competitiveness and Innovation Support in Slovakia

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Competitiveness and innovation ability are considered one of the key drivers of economies, therefore the evaluation of their support is frequently discussed also within the European Union. The aim of this article is therefore to evaluate success of competitiveness and innovation support via EU structural funds by impact evaluation of subsidized and not subsidized firms in Slovakia with use of unique detailed micro dataset. Impact of particular measures of innovation support of the Competitiveness and Economic Growth Operational Programme is analyzed by fixed and random effect model. Taking into account regional and sectoral specificities of supported and not supported entities various selected characteristics of firms, such as size, sales, capital and labor stock are tested in the Cobb-Douglas production function framework. Our results suggest that the support of innovation within the 2008-2014 program period phase had a positive and significant impact on firm's labor productivity, if only for a relatively short period of time (one year) after its allocation. Results of this analysis might offer valuable input for policy makers in order to effectively set framework for support of innovation in the starting phase of the programming period 2014 – 2020 within the European Union.

Under-promise and Over-Deliver? - How Online Consumer Reviews Affect Firms

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Universitat Pompeu Fabra and Barcelona GSE

Online reviews are increasingly important for consumer choice in a variety of markets ranging from hotels to durable goods. Firms thus have to take into account how their product/price strategies today influence consumers' reviews in the future. We present a novel framework in which consumer reviews depend not only on the true quality, but also on the expectations prior to purchase. In particular, we assume that, holding anticipated quality fixed, higher true quality leads to better reviews, but holding true quality fixed, higher anticipated quality results in worse reviews. In our two-period model firms face a non-trivial trade-off between creating high expectations in the first period, resulting in higher first-period profits but less favorable reviews and lower profits in the second, and low expectations, resulting in lower initial profits but more favorable reviews, and hence higher profits in the second period. This tension allows for a separating price equilibrium where low quality firms are deterred from pretending to have high quality by the threat of bad reviews. Our results hold both in a monopoly as well as oligopoly settings.

Strategic Corporate Social Responsibility

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University of Bamberg

Marco Sahm
University of Bamberg

We examine the strategic use of Corporate Social Responsibility (CSR) in oligopolistic markets. In our two-stage model, the level of CSR determines the weight that a firm puts on consumer surplus in its objective function before it decides upon supply. First, we consider symmetric Cournot competition and show that the endogenous level of CSR is positive for any given number of active firms. However, positive CSR levels imply smaller equilibrium profits. Second, we find that an incumbent monopolist may profitably use CSR as an entry deterrent. Both results indicate that CSR may increase market concentration and possibly be anticompetitive. We identify circumstances in which CSR mitigates the problem of excessive entry and increases total welfare but decreases consumer surplus.

Frequency of Price Adjustment and Market Power

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Austrian Institute of Economic Research (WIFO)

Christoph Weiss
Vienna University of Economics and Business

Biliana Yontcheva
Vienna University of Economics and Business

The present paper analyzes the role of market power in determining the frequency of price adjustment using daily data on retail prices for a major Austrian gasoline retailer. In particular, we investigate the effects of consumer information, demand levels and competitive pressure on the likelihood of frequent price changes using survival analysis. In light of recent regulatory attempts on the retail gasoline market, the present paper complements the literature dealing with the speed of adjustment by specifically focusing on the duration of stable prices (the subject of the before mentioned regulation). Similarly to findings of the literature on the speed of adjustment we observe that negative cost shocks lead to a lower frequency of price changes than cost increases. Furthermore, we find support for consumer search theories, which suggest that the share of informed consumers increases the frequency of price changes and decreases pass-through asymmetry. Weak evidence for theories of tacit collusion is also present in the data.

Auctioning risk: The all-pay auction under mean-variance preferences

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University of Technology Sydney

We analyse the all-pay auction with incomplete information and variance-averse bidders. We characterise the symmetric equilibrium for general distributions of valuations and any number of bidders. Variance aversion is a sufficient assumption to predict that high-valuation bidders increase their bids relative to the risk-neutral case while low types decrease their bid. Considering an asymmetric two-player environment with uniform valuations, we show that a more variance-averse type always bids higher than her less variance-averse counterpart. Utilising our analytical bidding functions we discuss all-pay auctions with variance-averse bidders from a designer's perspective. We extend our basic model to include noisy signals and allow for the possibility of variance-seeking preferences and type-dependent attitudes towards risk.

Taxing Income in the Oil and Gas Sector - Challenges of International and Domestic Profit Shifting

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Oesterreichische Nationalbank

Jan Loeprick
World Bank

This paper provides specific estimates on the scale of profit shifting among hydrocarbon MNEs. We estimate a semi-elasticity of reported Earnings Before Interest and Taxes (EBIT) to sector specific income taxation of -1.68. Observed effects are larger when using Profit and Loss before Taxes, allowing for debt shifting. We find no profit-shifting among entities that are majority-owned by a national government. We also observe a higher vulnerability of non-OECD economies in our sample, which consists of 294 domestic and multinational parents and subsidiaries during the period from 2004-2012. To assess the im- portance of domestic profit-shifting channels, we take advantage of domestic tax differentials among hydrocarbon producers facing additional rent taxes and find that domestic profit shifting accounts for about one third of total income concealed.

Income Taxation with Collective Households – An Analysis for Austria

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Sandra Müllbacher
Institute for Advanced Studies and Federal Ministry of Finance

Wolfgang Nagl
Institute for Advanced Studies

We estimate labour supply elasticities for men and women in a unitary as well as in a collective household model. For the collective case we assume a sequential decision making process. We use EU-SILC data from 2004 to 2013 and apply the IHS Labour Supply Model for Austria (ILSA). To avoid the problem of public goods in the household we restrict our sample to childless couples. Our estimates for the household model confirm previous findings in the literature. The sequential model shows a slightly lower respond to a change in wages for men and a slightly higher respond for women. A simulation of the Austrian tax reform of 2016 shows for both models a substantial increase in the supplied working hours.

Tax competition and the political economy of public employment: a model for Austria

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Michael Christl
Agenda Austria

In this work we simulate the effects of tax autonomy of the Austrian states on the levels of public employment in each state. We show that depending on the strength of the public sector lobby, tax autonomy would require reduction of employment in the public sector between 25% and 35% of the current level. We also show that tax autonomy increases welfare levels by 1% to 1,5%, that is that the positive change in the disposable income of the workers more than offsets the welfare loss resulting from lower public goods' provision. Finally, we show that reduction of public employment is welfare superior to an alternative scenario, in which employment levels are held constant but the wage levels in the public sector need to be adjusted.

Draft on model on CCCTB

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Veronika Solilova
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This paper aims at developing of the model for the research of budgetary impacts of CCCTB implementation in individual Member States. Based on the theoretical background and the review of the literature, we built the methodology for data mining from Amadeus and Bankscope database as well as methodology for missing data imputation, necessary for the application of the allocation formula under CCCTB. These methodological approaches will be further used for the calculation of the impacts on the corporate income tax revenues of the Member States resulting from the introduction of CCCTB.

Stream A: Labor (EDUWORKS) (room B1.04)

The Effect of a School-leaving Age Rise on the Prevalence of Teenage Pregnancies

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We examine the intention to treat effect of an increase in the compulsory school-leaving (CSL) age in Hungary on the prevalence of teenage pregnancy in a regression discontinuity design. We find that the rise from age 16 to 18 decreased the probability of first birth-giving by age 18 by 7.3 percentage points among Roma women. This is a relatively large effect, however, it vanishes by age 20. We support our findings by several robustness checks. It is puzzling that we find no effect on the education outcomes of these women; thus, we conclude that the impact of the legislative change might have gone through the time-use (incarceration) channel. We supply further evidence that the higher CSL age decreased the probability of getting pregnant during schoolyear only.

Central School Exams and Adult Skills: Evidence from PIAAC

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Centralized exit exams are often hypothesized to favorably affect incentive structures in schools. Previous research indeed provides vast evidence on positive effects of centralized exams on student test scores, but critics warn that these effects may arise through strategic behavior of students and teachers, which may not affect human capital accumulation in the long-run. Exploiting variation in examination types across school systems and over time, we document for the first time that central exams are also associated with higher adult skills. This finding is in line with true productivity-enhancing effects of central exit exams.

The origins of the gender pay gap among skilled young workers in Slovakia

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Slovakia long belongs to countries with the highest gender pay gap in the EU (based on EU-SILC data, the raw gender pay gap in Slovakia remains above 20 percent in all years). The pay gap is traditionally attributed to the different gender roles in the society and women's lower assertivity in the bargaining process over their wages and promotions. The generous family policies in the CEE countries are also blamed for

disadvantaged position of women in the labor market (Bicakova, 2010). This study explores the origins of this gender pay gap in the sample of young and highly skilled workers at the beginning of their career. We employ data from administrative records which allow us tracking the working careers of university graduates over time and to control for unobserved heterogeneity of workers. We apply the Oaxaca-Blinder decomposition technique to identify the part of gender pay gap attributed to education credentials (e.g. the field of study, university), work characteristics (e.g. industry, workplace location) and part that cannot be explained by observable differences. The analysis attempts to understand how gender pay gap depends on the type and quality of education programs (we take the ranking of university program from Slovak Academic Ranking and Rating Agency (ARRA)). With an increasing number of female students at our universities, it is important that we overcome the barriers to equal pay for women and encourage them to enter the workforce. The findings of study will contribute to this discussion.

The Importance of Foreign Language Skills in the Labour Markets of Central and Eastern Europe: An assessment based on data from online job portals

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In a globalised world, knowledge of foreign languages is an important skill. Especially in Europe, with its 24 official languages and its countless regional and minority languages, foreign language skills are a key asset in the labour market. Earlier research shows that over half of the EU27 population is able to speak at least one foreign language, but there is substantial national variation. This study is devoted to a group of countries known as the Visegrad Four, which comprises the Czech Republic, Hungary, Poland and Slovakia. Although the supply of foreign language skills in these countries appears to be well-documented, less is known about the demand side. In this study, we therefore examine the demand for foreign language skills on the Visegrad labour markets, using information extracted from online job portals. We find that English is the most requested foreign language in the region, and the demand for English language skills appears to go up as occupations become increasingly complex. Despite the cultural, historical and economic ties with their German-speaking neighbours, German is the second-most-in-demand foreign language in the region. Interestingly, in this case there is no clear link with the complexity of an occupation. Other languages, such as French, Spanish and Russian, are hardly requested. These findings have important policy implications with regards to the education and training offered in schools, universities and job centres. (note: Attached is a working version of the article published at the website of CEPS. If accepted for publication, the paper will be reworked to fit the paper style)

Forecasting Global Equity Indices using Large Bayesian VARs

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This paper proposes a large Bayesian Vector Autoregressive (BVAR) model with common stochastic volatility to forecast global equity indices. Using a dataset consisting of monthly data on global stock indices the BVAR model inherently incorporates co-movements in the stock markets. Moreover, the time-varying specification of the covariance structure accounts for sudden shifts in the level of volatility. In an out-of-sample forecasting application we show that the BVAR model with stochastic volatility significantly outperforms the random walk both in terms of root mean squared errors as well as Bayesian log predictive scores. The BVAR model without stochastic volatility, on the other hand, shows some merits relative to the random walk for forecast horizons greater than six months ahead. In a portfolio allocation exercise we moreover show that it is possible to use the forecasts obtained from our BVAR model with common stochastic volatility to set up simple investment strategies. Our results indicate that these simple investment schemes outperform a naive buy-and-hold strategy.

A wavelet-based time-varying co-integration model

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Lukas Vacha
UTIA AV CR

In our research, we focus on the dynamics in economic systems. There are many reasons for believing that the relationship among variables may vary and that the time-variations appear in both short and long-terms. We critically study the current literature of time-varying vector autoregressive models, which at many cases do not consider the fact of co-integration. We propose a time-varying co-integration model, where we take an advantage of the methodology of locally stationary processes to employ wavelet expansions of coefficients. Using both simulations and an economic example we show the model's capabilities.

On revisions and procyclicality of potential output estimates by OECD, IMF and EC

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This paper compares the revisions and procyclicality of output gap and potential growth estimates of EC, OECD and IMF. Similar to existing studies, we find the EC to do somewhat better than the OECD and the IMF in terms of long-term stability of indicators relevant for the level of the structural balance. However, the EC tends to be outperformed concerning the long-term stability of indicators relevant for the change in the structural balance as well as concerning short-term stability of all indicators studied (which are both highly relevant for the European fiscal governance framework). Furthermore, the EC's potential growth projections tend to be somewhat more procyclical than the ones of OECD and IMF.

Bridging the information gap: Small-scale nowcasting models of GDP for selected CESEE countries

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OeNB

Peter Toth
NBS

In this article, we describe short-term forecasting models of economic activity for seven countries in Central, Eastern and Southeastern Europe (CESEE) and compare their forecasting performance since the outbreak of the Great Recession. To build these models, we use four variants of bridge equations and a dynamic factor model for each country. Given the differences in availability of monthly indicators across countries and the rather short time period over which these indicators are available, we favor smallscale forecasting models. We selected monthly indicators on the basis of expert judgment, correlation analysis and Bayesian model averaging techniques. While our models generally outperform a purely time-series based forecast for all CESEE countries, there is no single technique that consistently produces the best out-of-sample forecast. To maximize forecasting accuracy, we therefore recommend selecting a country-specific suite of well-performing models for every CESEE economy.

Religious Evolution: Hayek's Last Argument in the Socialist Calculation Debate

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Agnostic Hayek developed the theory of religious evolution. That theory has been neglected rather than denied. Our historical reconstruction, based on archival material, uncovers that religious evolution is Hayek's last contribution to the socialist calculation debate. It solves couple of problems socialists had with the Austrian argument: (1) the choice of values. Some socialists admitted the Austrian argument but decided to choose other values for their society than capitalist ones. Hayek's religious evolution responds that there is no such a choice. If a civilization doesn't accept values adapted to the extended order, it will be ruled out and replaced by adapted ones; (2) How to persuade socialists who were unwilling to admit the existence of the Austrian argument? Hayek's case was to actually persuade socialists. He came to believe that religious evolution helps achieve that goal. The evidence he provided was religious developments in Soviet Russia in 1970s and 1980s.

Russian Oligarchs and Economic Inequality in Russian Regions: A Quantitative Assessment

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This article traces the rise of the so called oligarchs in post-Soviet Russia in historical as well as sociological terms and examines their relationship to income distribution in Russia. When Russia moved to market economy in the 1990s, new business elite evolved. Russia's distinctive path into market economy on the one hand and low levels of social capital on the other hand gave rise to the oligarchs who now control large parts of the economy. The new entrepreneurial class developed a strong stand within politics and society, enabling the new entrepreneurs to shape Russia's trajectory considerably. In light of these historical developments, this article hypothesizes that the dominant role of Russian oligarchs has had a considerable impact on income distribution. The effect oligarchs have on economic inequality in Russian regions is analyzed based on a unique

regional data set on the locations of oligarchs' businesses across the Russian regions in 2003. Results indicate significantly higher levels of income inequality in regions with a higher presence of oligarchs that cannot be explained by other regional or structural characteristics.

A registered Cartel and its End. Cementing Austrian Industry Structure.

Nikolaus Fink
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This paper studies the Austrian registered cement cartel and its deregulation when Austria acceded the European Union in 1995. Based on aggregate data on revenues, cost, employment and industry structure, I find that the liberalization reduced average prices, profits, employment and led to exit. However, consumer list prices for cement bags increased markedly and negatively affected the accuracy of several price indices.

Networks of Leading Economists

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To economists worldwide, for more than half a century Chicago, Harvard and MIT have been the most iconic and influential economics departments. My paper adopts an approach to history of economics that focuses on the role of the networks within which economists operate, their ideas diffuse, and gain scientific credit and requires the consideration of the entire community including its lesser-known members. For these purposes, I have constructed a database of all economists who received a doctoral degree from these three departments covering the period from the time of first Ph.D. graduates in 1875 until 2013. For 96% of the over 5,400 graduates it was possible to reconstruct the names of their advisors. This allows me to reconstruct advisor-advisee networks or academic 'amily trees' that reveal in each department a small circle of advisors who have supervised a disproportionally large portion of students; and such supervisors very likely graduated from the same department. By overlapping such departmental networks the interaction of these three leading departments, in particular the dynamics between Harvard and MIT, is revealed.

Determinants of Foreign Currency Savings: Evidence from Google Search Data

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Vilma Deltuvaite
Kaunas University of Technology

Petr Koráb
Mendel University in Brno

The paper investigates motives of domestic and foreign currency savings in non-Eurozone EU countries. We focus on macroeconomic shocks specified by the International Fisher Effect theory, current account and remittances. Special attention is put on perception and sentiment of economic agents. Main contribution of the paper is based on sentiment indicators received from Google search data. To estimate the model, we employed Bayesian Model Averaging since we do not have appropriate economic theory to select Google search keywords.

When Communities Participate in Primary Health Care: A Randomized Controlled Trial of a Community Health Worker Program in the Philippines

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In many low- and middle-income countries public health systems are confronted with a significant shortage in professional health workers, which is recognized as a major con-straint to economic development and poverty reduction. In 2014, more than 4 million health workers were missing worldwide, based on WHO estimations. Community Health Workers (CHWs) have been proposed as a cost-effective, inclusive solution to address the enduring shortage. CHWs are lay health workers who, after receiving a short health train-ing, work as support health personnel in their neighborhoods. With their close relationship to the communities they serve as a bridge between their peers and the public health sector addressing both problems on the demand and supply-side. Besides public programs, micro-finance institutions (MFIs) have increasingly started to implement own small-scale CHW programs. So far, little is known about the impacts and implementation barriers of such initiatives. We evaluate an MFI-led CHW program in the Philippines using a cluster ran-domized controlled trial design. Unlike previous studies, we also collected extensive data about the health workers, e.g. about their competencies, motivation, and relationship to the community. We find evidence for small to moderate positive effects of the intervention for the dissemination of information and the promotion of selected health practices. On the other hand, we do not observe changes in general health knowledge and social support in the communities. Community members' were more likely to make use of CHW's services (i) if they were friends with the CHW and if the CHW had a central position in the commu-nity network, (ii) if the CHW showed high levels of motivation and engagement, and (iii) if public health facilities were not easily accessible in the neighborhood. Our evidence sug-gests that low levels of motivation and engagement among some CHWs were mostly due to insufficient incentives and poor supervision of CHWs' activities. Based on our results we discuss potential extensions of the initiative and derive policy recommendations that are relevant for health programs in other contexts.

Social Identity and Role Models

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We present a lab-in-the-field experiment and surveys of marginalised Roma children in Slovakia to examine whether reminding Roma of their ethnicity reduces their performance in a cognitive task. Research on social identity and stereotypes has documented that when individuals feel their social group is negatively stereotyped in a domain their performance declines which can reinforce discrimination. In an effort to break the cycle of negative stereotypes we remind Roma of either Roma or Non-Roma role models. We find that the activation of a Roma's ethnicity reduces cognitive performance. The reduction in cognitive performance is partially offset when subjects are reminded of a Roma role model but not a non-Roma role model. We then attempt to understand the channel through which social identity and role models effect performance. We show that priming a Roma's identity has a direct effect on confidence, decreasing performance.

The Non-parametric Approach to the Analysis of Retail Banking Integration in Europe

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A single market for banking services is usually viewed as the most important milestone in achieving full financial integration in Europe, which is believed to promote financial stability and economic growth. If the integration of wholesale banking operations is in its advanced stages, the integration of retail banking services is certainly lacking behind. Considering the importance of retail banking integration for the transmission of the common monetary policy in the euro area, we need to understand how the integration process changes over time and in which retail banking market the degree of integration is higher. We analyze the time-varying convergence process of monthly interest rates for 18 Eurozone countries in two deposit markets (households' short-term deposits and firms' overnight deposits) and four loan markets (consumers short-term loans, mortgages, firms' short-term and long-term loans) with a non-parametric measurement framework for the analysis of convergence and polarization of economies initially proposed by Quah (1997). We show that non-parametric measures of convergence assume a priori non-linear dynamics and, therefore, are better suited for the analysis of financial integration. The empirical analysis is undertaken in two steps: (1) the testing of unimodality/multimodality of the interest rate distribution, and (2) the non-parametric analysis of interest rate dynamics in the form of Gaussian stochastic kernel density estimations. Several differences between analyzed markets are revealed and illustrated with counter plots. The impact of the global financial crisis and the European sovereign debt crisis is also discussed.

Trust in banks

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Trust in banks is a key ingredient to the effectiveness of the financial system; such trust fosters financial inclusion and favors financial stability. However, little is known about what determines trust in banks, as only a handful of single-country studies available. The aim of this paper is to provide the first cross-country analysis on the level and determinants of trust in banks in 52 countries during the period 2010-2014. We observe

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large cross-country differences in trust in banks, which are influenced by the recent occurrence of a financial crisis. We find evidence of the influence of religious values, with greater trust in banks for Muslims and Hindus and in general for religious people. Political and economic values related to positive attitudes toward the market are associated with greater trust in banks.

Politics and Banking in Russia: The Rise of Putin

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This study examines how state ownership of banks can have contributed to the ascending to power of Vladimir Putin during the presidential elections of March 2000. We analyze how firm loans granted by the dominating state-owned bank Sberbank can have influenced the outcome of these elections. We study the relation at the regional level and analyze the variation in Sberbank firm loans and the increase of Putin's popularity between the Duma elections of December 1999 and the presidential elections of March 2000. We assume that Sberbank lending has been used to provide incentives to firm managers in order to mobilize voting of the employees in favor of their regime. We find evidence that Sberbank lending increased before the elections to favor Putin victory. We do not find that regions with the greater increase in Putin's popularity would have been rewarded with a stronger growth in Sberbank lending. Our results therefore support the view that Sberbank loans granted before the presidential elections can have supported the success of Vladimir Putin in the presidential elections of March 2000.

The Market vs Book Leverage Ratio Dilemma: An Analysis of the Lead-Lag Relationship and Speed of Adjustment

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University of East England

Jiri Tresl
University of Nebraska

In this study we explore the relationship between market and book leverage. The results obtained suggest that book- and market-based values of leverage are closely related. The average difference in market and book values of leverage fluctuates around zero with recession sensitive firms being largely responsible for the observed volatility. The close relationship between book and market leverage supports the idea of the book leverage being managed to meet the market expectations. We find that managers adjust book leverage only when it exceeds the market leverage. This behaviour is consistent with a conservative view on managing leverage ratios as managers de-leverage firms when a one-sided discrepancy exists. The estimated adjustment speed is significantly higher for firms sensitive to the business cycle, which are more sensitive to negative macro shocks.

The Impact of Contract Enforcement Costs on Outsourcing and Aggregate Productivity

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Sciences Po and CEP/LSE

Legal institutions affect economic outcomes, but how much? This paper documents how costly supplier contract enforcement shapes firm boundaries, and quantifies the impact of this transaction cost on aggregate productivity and welfare. I embed a contracting game between a buyer and a supplier in a general-equilibrium closed-economy Eaton-Kortum-type model. Contract enforcement costs lead suppliers to underproduce. Thus, firms will perform more of the production process in-house instead of outsourcing it. On a macroeconomic scale, in countries with slow and costly courts, firms should buy relatively less inputs from sectors whose products are more specific to the buyer-seller relationship. I first present reduced-form evidence for this hypothesis using cross-country regressions. I use microdata on case law from the United States to construct a new measure of relationship-specificity by sector-pairs. This allows me to control for productivity differences across countries and sectors and to identify the effect of contracting frictions on industry structure. I then proceed to structurally estimate the key parameters of my macro-model. Using a set of counterfactual experiments, I investigate the role of contracting frictions in shaping productivity and income per capita across countries. Setting enforcement costs to US levels would increase real income by an average of 7.5 percent across all countries, and by an average of 15.3 percent across low-income countries. Hence, transaction costs and the determinants of firm boundaries are important for countries' aggregate level of development.

Business Cycle Dynamics and Firm Heterogeneity: Evidence for Austria Using Survey Data

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We study the (macroeconomic) consistency of individual firm-level business tendency survey responses and take firm-level heterogeneity explicitly into account. Adding firm-level, industry- and region-specific structural characteristics allows controlling for additional microeconomic heterogeneity. The dataset we use are the business tendency survey micro data for Austrian manufacturing covering the time period 1996 to 2012. Our results show that firm-specific information embedded in the qualitative survey questions is relevant to understand aggregate business cycle dynamics. For example, the assessment of firms' order book levels, their current degree of capacity utilisation and their production expectations as well as obstacles in their production activities due to insufficient demand show evidence of a significant effect in explaining a firms' change in current production output. However, we do not find clear results with respect to firm size, nor do we find explanatory power of the industry affiliation of a firm and with respect to regional characteristics. We are able to identify heterogeneity in behaviour for cyclical up- and downswings as well as between large and small firms.

Some evidence on firm-level business cycle similarity in the EU

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Ladislava Issever Grochová
Mendelu University in Brno

The paper deals with the impacts of continuing economic and monetary integration in Europe. The analysis focuses on identification of business cycle similarity using the firm-level data. In particular, the paper asks about determinants of firm-level business cycle correlation to the average Euro area GDP cycle. Especially, the factors of firm's owner nationality, NACE section (industry), Euro area membership and others are examined in the paper. The interim results indicate higher correlation of Czech firms owned by companies settled in the Euro area, in particular German and Italian firms. On the contrary, Czech firms owned by the U.S., British or Russian companies do not show similar patterns. Accordingly, the paper attempts to provide some microeconomic foundations for explaining aggregate fluctuations in Europe.

Firm entry and exit, investment irreversibility, and business cycle dynamics

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This paper studies the role of firms' entry and exit for business cycle dynamics in an environment, where physical capital is partially sunk. Extending a heterogeneous-firm model a la Hopenhayn (1992) by aggregate productivity shocks and partially irreversible investment yields substantial endogenous amplification and propagation. A positive aggregate productivity shock increases the number of entrants and their initial investment levels, because the expected entry value outweighs the implicit sunk cost associated with investment irreversibility. The endogenous propagation of an exogenous stimulus arises via a built-in selection device, as the production growth of new businesses over their life-cycle exceeds the decay due to exits of the least productive firms.

Interactive agent based model as an analytical support tool for climate governance

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Demands for increased participation in policy-making are based on many arguments in literature, emphasizing the strengthening citizens´ role in the governance of their society, building capacity, awareness and social cohesion among the public. However, increased participation is not anymore exclusively desired only by the public. Policy formulation and implementation is shaped by the interaction between multiple actors – including national, regional, local governments, non-governmental organizations, scientists, private companies and many others. In our paper we focus on how behavioural experiments can be used as a participatory method for addressing the complex and uncertain societal problems while at the same time they might serve as an analytical tool for studying the strategic interactions among these actors (Walz et al. 2007, Reed et al., 2013). Agent based models as a form of behavioural experiments help explain under which conditions agents (actors) are most likely to either cooperate or decide to follow their own strategies. The game theory is a concept often used in economy and political sciences, while the format can largely limit or enhance the potential of these games (which can be designed as agent based models) in facilitating participatory processes (Hermans et al, 2012). We attempt to use such a model in the form of a board game to analyse

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and predict individual and group behaviour of different actors in controlled settings where we simulate a social dilemma related to the provision and consumption of ecosystem services. Based on the Janssen Cardenas and Bousquet's (2013) new generation of field experiments with the commons, we present our strategy to of using participatory games for: i) supporting participation in addressing complex issues in urban and marginalised areas facing risks of climate change and ii) making a better understanding of the choices actors make under conditions of uncertainty.

Ecosystem Services Governance for Well-Being of European Mountain Regions

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European mountain landscape faces unique global change challenges but also offers opportunities for sustainable development. The specific role of mountain ecosystems in climate change regulation arises from their capacity to capture significant amount of carbon in vegetation and soil organic matter in the long term. In spite of the importance of European mountain ecosystems to provide carbon sequestration ecosystem service has been overlooked long time, the need to reverse their degradation has already been noted within the broader debate about climate change, especially since Rio Earth Summit in 1992. Nowadays mountain sustainable development is top policy agenda. Nevertheless, what are appropriate new governance approaches and technological innovations for effective mountain management and sustainable development of mountain regions with contribution to climate change mitigation is still under the uncertainty and it is challenging issue. Ecosystem services as public or common goods face the traditional social dilemma of individual versus collective interests often generating conflicts, overuse, and resource depletion. In this paper, we analyse carbon sequestration in mountain regions as an innovative forest management approach to addressing responses to global climate impacts. Furthermore, we analyse how resource regimes contribute to the effectiveness of management, in particular whether self-management and self-governance can increase innovation capacity, without external authority being needed to resolve the resource management problems. The potential of global climate regulation ecosystem services to improve the well-being of mountain regions will be demonstrated in European continental mountains and Northern Europe. The paper demonstrates how carbon sequestration resource regimes contribute to the resilience and well-being of mountain regions, and can be considered as a governance innovation to scale down CO2 objectives from global to local policy arenas.

Cross-border governance: technology-institutional innovations as potential respond to polarisation of EU regions

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There is an ongoing process of peripheralization and polarisation in the Central and Eastern European countries, in last decades (Tahir, 2013). Despite huge amounts of money spent through European funds on balancing out regional disparities, the gap between rich and poorer regions did not change or became even larger in the new EU member states. European core regions, usually capital cities and other metropolitan areas,

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are going through sharp economic development while peripheral regions are experiencing unfavourable development (Lang, 2012). Despite the fact that geographic location is definitely not the only one determinant of peripherality (see e.g. Kuhn, 2014), many peripheral areas in new member states are located in the border regions. Ongoing process of European integration brings increasing importance of cross-border regions in the EU context. Many EU funding instruments represent opportunity for common development of cross-border areas, but the integration remains beyond expectations in Central Europe. Usually the decision making in relation to the cross-border cooperation is situated in different centres. Such organization is facing hierarchical governmental structures and its limitations. Moreover, like all regions, municipalities or other economic subjects, border regions are exposed to the dilemma whether it is more advantageous for them to increase their competitiveness through cooperation or competition (Giffinger, 2005). Chilla et al (2014) see the main obstacle of cross-border cooperation in multilevel mismatch when there are different administrative and political competencies at the same level in each of involved countries. Hand in hand with accession to the European Union new governmental structures has been implemented in the new EU member states. There is a change of dominant position of national states in decision making. The competencies from states are delegating up to the European level as well as down to regional and local levels of government (Marks, 1993; Hooghe and Marks, 2003; Bache and Flinders, 2004). At the same time, there is an increasing role of non-state actors in the decision making process. On the one hand, it can lead to democratization of decision making processes and better policy targeting (Kooiman, 1993; Bache, 2010). On the other hand, it can lead to an interference by powerful interest groups, obstructions or questionable accountability of involved non-state actors into decision making (Peters, Pierre 2001; Scharpf, 2007; Geissel, 2009) All these ongoing processes result in diversifying powers and interests and potential conflicting situations among involved actors. One of the key challenges of EU cross-border governance is to identify appropriate mechanisms to coordinate actors and their interest that emerge at multi scale and diversified space to enhance regional development. It seems it is essential to implement innovative approaches within territorial governance based on institutional and technological co-evolution. Such co-evolution should be designed in relation to the improvement of cooperation between different levels of government as well as among different actors. The contribution discusses specifics of governance in particular cross border regions under EU multilevel governance. The Usti nad Labem-Dresden region and the Bratislava-Wien-Brno region have been chosen as case studies. Research is based on interviews with different actors, such as regional politics, representatives of euroregions, chamber of commerce, nongovernmental organizations, municipalities, regional and national administrative authorities or other cross-border institutions. Moreover, the role of innovative approaches within territorial cross-border governance to promote technology-institutional co-evolution for balanced regional development is assessed.

Polycentric Governance: Challenge and Opportunities

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Polycentric governance as dynamic, complex-systems perspective, implies multiple centers of authority, enabling the coordination of power and interests, and enhancing innovation, learning, and adaptation in a space and time (Ostrom, V. et al., 1961; Ostrom V, 1991, 1997). Governance arrangements in polycentric systems are self-organised by multiple governing authorities of differing scales. Nested in several levels of general—purpose

governments or specific purpose governance, each unit exercises considerable independence to make and enforce rules within a circumscribed scope of authority for a specified geographical area (Andersson, Ostrom E, 2006). The paper addresses key challenges and opportunities of polycentric governance facing global governance arena. In particular the potential of polycentric governance concept to address complexity and mechanism for scaling down global objectives to local arena will be discussed. Polycentric governance thus can be seen a social innovation to enhance effectiveness of governance . Our paper will explore perspective of polycentric governance for. (i) well being of marginalised e.g. cross border and mountain regions, (ii) polycentric territorial and urban governance, (iii) ecosystem services governance to promote climate regulation. Proposal is prepared under the project Social Innovation in Marginalised Rural Areas (SIMRA) H2020.

Stream H: Econometrics (room B1.07)

Sample Overlap in Meta-Analysis

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A common feature of meta-analyses in economics, especially in macroeconomics and related subfields, is that the samples underlying the reported effect sizes overlap. The resulting positive correlation between effect sizes decreases the efficiency of standard meta-estimation methods. Ignoring sample overlap generates downward-biased standard errors and, thus, invalid meta-inference. This paper argues that the variance-covariance matrix describing the structure of dependency between primary estimates can be feasibly specified as function of information that is typically reported in the primary studies. Meta-estimation efficiency can then be enhanced by using the resulting matrix in a Generalized Least Squares fashion. Simulation studies illustrate efficiency losses and size distortions potentially arising in different empirically relevant overlap scenarios. Finally, the proposed estimator is used in an meta analysis of the output elasticity of public capital.

Identification of the Average Treatment Effect when SUTVA is violated

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In order to identify the Average Treatment Effect (ATE) of a binary treatment on an outcome of interest, we need to impose, often implicitly, the so called Sta- ble Unit Treatment Value Assumption (SUTVA). In fact only under SUTVA we can observe at least one potential outcome for each individual. If SUTVA is vi- olated, the ATE is not point identified even if the treatment has been randomly assigned. This paper derives sharp bounds on the ATE of an exogenous binary treatment on a binary outcome as a function of the share of the units a for which SUTVA is potentially violated. We also show how to derive the maximum value of a such that 0 (or any other value) is an extreme point of the bounds (i.e., the sign of the ATE is identified). Furthermore, after decomposing SUTVA in two separate assumptions, following the epidemiology literature, we provide weaker assumptions which might help sharpening our bounds. Furthermore, we show how some of our results can be extended to continuous outcomes. Finally we apply our bounds to two well known experiments, the US Job Corps training program and randomly assigned voucher for private schools in Colombia.

Weighted Scoring Rules for Comparison of Density Forecasts on Subsets of Interest

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We extend the notion of the scoring rules to weighted scoring rules that are designed to assess and rank the accuracy of competing density/probabilistic fore- casts on the subsets of interest. We introduce the definitions of locally proper and preference preserving scoring rules. Locally proper scoring rules are designed to reward probabilistic/density forecasts that are correct in the subset of interest and disregard the forecast accuracy outside of the region of interest, that is a weighted scoring rule should not reject forecasts that are equal to the true data generating density on the subset of interest. Preference preserving scoring rules are such that a competing forecast preferred in both subsets A and B must be preferred over the union of A and B. We show that none of the previously proposed scoring rules satisfy these properties. To address such shortcomings of extant scoring rules we introduce two novel scoring rules: likelihood based penalized weighted likelihood score and incremental continuous ranked probability score.

Locus of Control and Support for the Welfare State

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Hans Pitlik
WIFO Vienna

The purpose of the paper is to examine the interrelation of informal institutions with the (perceived) quality of a country's institutional framework in order to address the determinants of support for the welfare state. Based on the survey on psychological literature, we employ the concept of locus of control in order to identify the main core beliefs as the driver of Welfare State attitudes. We follow a comprehensive concept of the Welfare State, measuring attitudes towards government intervention and income redistribution, using the survey data from the World Values Survey. Our empirical results show that people with an internal locus of control believing in their ability to control their own lives report substantially less positive attitudes towards income equalization and government interventions. Additionally, a higher confidence in government actors and low confidence in major private companies amplify the Welfare State preferences under an external locus of control.

Drivers of the change in social welfare in European countries

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The necessity of having economic performance measured in terms of welfare beyond GDP calls for new approaches capable of simultaneously taking into account economic as well as social and environmental indicators. The non-parametric approach proved to be a proper tool of assessing efficiency in the situations of multiple inputs and multiple outputs where some of the outputs are undesirable. In the paper, a performance of 25 European countries is evaluated by subsequently incorporating indicators of social and environmental impact of the production process into SBM output-oriented DEA models which enables capturing different characteristics of socio-economic development. To identify sources and drivers of the social welfare change over time, intertemporal analysis covering the span of 2003 – 2012 was carried out. The results suggest that the average productivity change was mostly contributed by the change of technology

which was for the most part environment-saving rather than technical-input-saving or social-conditions-improving. The resulting weights for particular economic social and environmental indicators indicate the human judgments and priorities of the economic policy that appear to be crucial for the social welfare providing the implicit weights for social welfare function. Introducing the restrictions for the weights in AR models, the impact of different strategies and goals of economic policy for social welfare are demonstrated.

Education and Social Mobility in Europe: Levelling the Playing Field for Europe's Children and Fuelling its Economy

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Alyssa Schneebaum
University of Economics, Vienna

Jesus Crespo Cuaresma
University of Economics, Vienna

The persistence of socioeconomic outcomes across generations acts as a barrier to a society's ability to exploit its resources efficiently. In order to derive policy measures which aim at accelerating intergenerational mobility, we review the existent body of research on the causes, effects and the measurement of intergenerational mobility. We also present recent empirical works which study intergenerational mobility in Europe, around the Globe, and its relevance for economic growth. We recommend four policy measures to reduce the negative impacts of intergenerational persistence in economic outcomes: universal and high-quality child care and pre-school programs; later school tracking and increased access to vocational training to reduce skill mismatch and facilitate technological development; integration programs for migrants; and simultaneous investment in schooling and later social security programs.

What is the value of foreign work experience? Analysing online CV data in Slovakia

Lucia Mýtna Kureková
Slovak Governance Institute

Zuzana Žilinčíková
Slovak Governance Institute

This paper studies how attractive young returnees are in the labour market and how they behave relative to stayers. We use the online CVs of young people that are posted on the major Slovak job-search portal. The analysis is performed using a set of regression models that investigate attractiveness, salary expectations and positions of interest to returnees in comparison to stayers. We find that the post-accession foreign work experience increases the attractiveness of job candidates, but that attractiveness premium varies depending on the returnee's host country. Returnees are more demanding with respect to their minimum salary expectations and are more likely than stayers to apply for positions advertised abroad. Return migrants are a diverse group - women, graduates, or people returning to economically underperforming regions, continue to face disadvantages with labour market integration.

Job Polarisation and the Spanish Local Labour Market

Raquel Sebastian Lago
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Different empirical studies suggest that the structure of employment in the U.S and in the U.K tends to polarised. This means that there has been employment growth in jobs at the upper and lower tails of the wage distribution, while the number of jobs in the middle part of the distribution has declined. We provide first graphical evidence that polarisation also occurred in Spain since the mid-90s until 2008 and then, we also perform econometric analysis to test in a more rigorous way the phenomenon. Next, we measure the actual magnitude of job polarisation and we apply this measure to compare Spanish local labour markets and analyse its most important determinants.

Over-education and Job Quality in Germany, Spain, Sweden and UK in 1999 to 2006

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University of Salamanca

This study explores the incidence of over-education and its association with quality of jobs in countries with different labour market structures. It considers four countries from Europe – Germany, Spain, Sweden and United Kingdom. The data used in this study are the combination of European Labour Force Survey and European Structure of Earnings Survey and cover the period from 1999 to 2006. In the first step of the analysis I estimate over-education in each job adopting Realized Matches (RM) approach. The second step of the analysis looks at educational mismatch across the job quality ranking in each of these countries. A bivariate analysis suggests an inverse U-shaped relationship between over-education and job quality in Germany and Sweden (countries with employment upgrading), and a negative relationship in Spain and UK (countries with polarised employment upgrading). Next, job fixed effects regressions are estimated to investigate this relationship after controlling for other observable factors and job specific unobserved heterogeneity. The results show a great deal of variation across countries. The non-linear relationship between over-education and job quality remains significant only in Spain after controlling for job fixed effects. In Spain, a higher proportion of migrants reduce over-education, while this relationship is not significant for other countries. We also find that job level composition of gender, age, nationality, education levels, and employment characteristics play a major role in determining the extent of over-education.

Social networks and the labour market mismatch

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Matloob Piracha
University of Kent

This paper assesses the extent to which social contacts and ethnic concentration affect the education-occupation mismatch of natives and immigrants. Using Australian panel data and employing a dynamic random effects probit model, we show that social capital exacerbates the incidence of over-education, particularly for females. Furthermore, for the foreign-born, ethnic concentration significantly increases the incidence of over-education. Using an alternative index, we also show that social participation, friends and support and ethnic concentration are the main contributors in generating a mismatch, while reciprocity and trust does not seem to have any effect on over-education for both, immigrants and natives. Finally,

we show that social networks are more beneficial for the relatively better educated.

Youth Enfranchisement, Political Responsiveness, and Education Expenditure: Evidence from the U.S.

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University of Vienna

Graziella Bertocchi
University of Modena

Alessia Russo
University of Oslo

Arcangelo Dimico
Queen's University of Belfast

This paper studies the effect of the introduction of preregistration laws, which allow young citizens to register before being eligible to vote, on voter turnout and public spending in the United States. Since preregistration laws have been introduced in dierent states in dierent years, these events have generated exogenous variation across space and time in the exposure of young voters to the new electoral reforms. Consistently with a political economic model, estimates exploiting a difference-in-difference regression design over U.S. state-level data establish that preregistration determines an increase in state government spending for higher education to the benets of newly-enfranchised young voters. Results from a sample of higher education institutions also show a positive effect of preregistration on state grants and recipients of state-provided student financial aid. We also show that the channel of transmission is represented by the fact that preregistration laws promote a sizeable de facto enfranchisement effect for young voters, especially for those from poorer families.

The Effectiveness of Eurofunds on Education in Slovakia

Marcela Veselkova
Government Office SR

Do additional school resources improve student performance? The evidence is mixed. This paper contributes to the debate by analyzing the impact of European Structural and Investment Funds on student performance in Mathematics in Slovakia. The preliminary results suggest that additional school resources had a modest positive, albeit insignificant impact on student performance. The low effectiveness can be attributed to the great flexibility of schools over how to use the funds. The final version of the paper will move beyond the simple examination of the effect of participation in the programme. First, it will examine the impact of the variation in the level of European funds for the school. Second, the final version of this paper will adopt non-linear DiD methods to examine whether all students benefited from the support equally.

Why academic quality in higher education declines

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We investigate the choice of quality, or academic content, in higher education in a two-sector model. Individuals are differentiated according to their cost of acquiring human capital. A higher academic quality increases productivity upon training, but is also associated with a higher cost of acquiring skills. We consider both a differentiated university system in which quality is tailored to the individual need, and a uniform quality system being politically determined. The former yields a higher income dispersion. Average quality decreases under both systems when the skill

premium increases. Moving from a single stage to a two-stage scheme reduces quality in the first stage and increases quality in the second stage. Increasing differentiation in higher education can decrease student effort and skill of medium ability types.

The Synthesis of Successful Organizational Strategies for Energy-Saving Behavior Change

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Recent studies have begun to bridge the gap between workplace pro-environmental behavior and workplace energy-saving behavior by adapting specific existing pro-environmental behavioral models to the workplace energy-saving environment. This article focuses on the workplace by conducting a multi-disciplinary literature review of research that has examined the influence of organization-based energy-saving behavior change initiatives. This paper combines the insights of the current workplace models to develop an integrated framework of energy-saving behavior in the workplace. An overview of the current pro-environmental and energy-saving behavior in the workplace literatures will be provided as well as their similarities and differences highlighted. An employee energy-saving behavior framework is developed, which contains individual, group, and organizational factors that have predictive relevance across different organizations. The proposed framework will provide further insights into the antecedents of workplace energy-saving behavior and identify common findings across the different existing workplace models. This theory can be the basis for further research in order to provide a comprehensive picture of the antecedents of energy-saving behavior in the workplace. Implications for specific interventions to develop targeted practices towards achieving environmental sustainability will be discussed.

Transmission of Behavioural Biases across Generations

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In this paper we examine the role of family members and the local community in the transmission and shaping of self-control behaviour of children from segregated communities in Slovakia. Collective decision-making and collective responsibility are more important in Roma families than individual responsibility and individual ambition. Anecdotal evidence further suggests that a high share of Roma families living in segregated settlements spend the majority of their income in the short term. Those people may thus face self-control difficulties such as impulsive behaviour in consumption and impatience, which may indicate a lack of self-control. Our results suggest that interaction with fellow Roma community members increases impatient behaviour particularly in children, and thus undesirable behaviour by children may in part be explained by the transmission of behaviour from parents and the local community. A lack of self-control may explain Roma's lower outcomes in education and employment. Such findings would have strong implications for improving the targeting of anti-poverty programmes and they highlight the need to design programmes that can jointly influence the behaviour of community and family members

How did behavioral responses after the introduction of an ACE affect the cost of capital?

Tanja Kirn
University of Liechtenstein

This paper examines the impact of an Allowance for Corporate Equity (ACE) on the cost of capital. As the Belgian SMEs have gradually reduced their leverage ratio after the ACE came into force, the analysis disentangles the policy induced direct effect from the impact of the behavioural response on the cost of capital. The main identification strategy is based on variation in the behavioural response of the firm due to the gradual adjustment of their leverage ratio. To disentangle the policy induced direct effect from the impact of the behavioural response, a counterfactual decomposition is carried out by the inference procedure of Chernozhukov(2013). This quasi-natural experiment demonstrates that the ACE significantly reduced the cost of capital. Secondly, the results illustrate that the behavioural impact gained importance by time. Thirdly, a reciprocal influence between the direct and the indirect effect is found, as the direct effect becomes stronger, if firms decrease their leverage ratio. Overall, the findings confirm that reducing the tax discrimination between debt and equity has significantly decreased the cost of equity and reduced the debt bias.

Inequality, Perception Biases and Trust

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OeNB

Helmut Stix
OeNB

We present a theoretical framework that links trust, trustworthiness and inequality. An individual's level of trust is assumed to be related to expected trustworthiness among his reference group, while trustworthiness itself is assumed to decrease in interpersonal income differences. As a consequence, the impact of inequality on trust runs via the perception of inequality which is individual-specific. We show that average trust in a region is directly related to the Gini coefficient only under specific assumptions, in particular if all people have identical and unbiased reference groups. For biased or heterogeneous reference groups, however, a regression of trust on Gini coefficients might understate the true effect of inequality and an insignificant coefficient does not necessarily mean that inequality exerts no effect on trust. This observation allows us to reconcile conflicting findings of the literature. Furthermore, the framework implies that the perception of inequality is U-shaped with respect to income which might give rise to a non-linear relation between trust and income. Survey data from Austria strongly support the predictions of our framework. Regional Gini coefficients are found to be inconsequential for trust. On the other hand, individual-specific perceptions of inequality exert a strong adverse effect on trust.

Macroeconomic Impact of Basel III: Evidence from a Meta-Analysis

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Henan University

Ronja Lind
Zeppelin University Friedrichshafen

We present a comprehensive meta-analysis of the impact of higher capital requirements imposed by regulatory reforms on the macroeconomic activity (Basel III). Synthesizing the empirical evidence from a unique dataset of 305 estimates reported in 42 primary studies, the findings indicate that, on average, there is a negative, albeit moderate GDP level effect in response to a change in the capital ratio. Meta-regression results, however, suggest that the estimates reported in the literature tend to be systematically influenced by a selected set of study characteristics, such as econometric specifications, the authors' affiliations and the underlying financial system.

Banks in the Venture Capital Market

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Marbella International University Centre & University of Vienna

This paper analyzes bank investing in the venture capital market, which is permitted by the Gramm-Leach-Bliley Act (1999). I develop a principal-agent model in which startup firms have a growth opportunity and need funds to invest. The realization of non-verifiable returns depends on the fund invested and the managers'/entrepreneurs' effort, which is unobservable to the banks. I show that convertible debt contracts can mitigate ex-post inefficiency arising from firms' strategic default due to non-verifiability of returns. I further generalize the model by considering moral hazard of the managers/entrepreneurs. In this case, the optimality of convertible debt contracts for startup firms is shown. Finally, I develop a dynamic model in which I take into account the relationship values of the startup firms and their banks. I show that in this case convertible debt contracts are optimal for startup firms with volatile returns, which is consistent with empirical evidence (Kaplan and Strömberg, 2003). In addition, when firms' relationship value is low and banks' relationship value is high, banks do not convert and thus the lending relationship between banks and firms is maintained. This result is also consistent with evidence that banks participate in venture capital finance in order to build the lending relationship early on with potential clients (Hellman et al., 2008).

Cross-Border Portfolio Diversification under Trade Linkages

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This study uncovers a cross-border financial diversification motive related to goods and services trade. Using the IMF CPIS panel data set for a broad set of country pairs and for the period 2001-2012, I find empirical evidence that the share of equity in a bilateral portfolio decreases with bilateral trade. The driving force behind this pattern are holdings of foreign debt, i.e. increasing trade intensity is strongly related to increasing holdings of foreign debt and less so to holdings of foreign equity. The empirical findings are in line with the predictions of a calibrated two-country two-goods portfolio choice model where in equilibrium equity is used to hedge against supply shocks and real bonds are used to hedge against a global preference shock. For reasonable parameter values, strengthening trade linkages induce the risk-averse representative agent to adjust her portfolio of foreign assets away from foreign equity and towards foreign bonds. The

findings of this study imply that bilateral trade provides an explanation for why cross-border portfolio investments are sometimes dominated by equity investments and sometimes dominated by debt investments. This matters since both asset classes are means of risk-sharing but differ with respect to their effects on macroeconomic outcomes and financial stability.

The finance-trade nexus and its neglected role in the global trade slowdown

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European Central Bank

Ioannis Gkrintzalis
European Central Bank

Previous literature shows that financial frictions play an important role in trade, and that financial development impacts positively on the level of exports and the trade balance of manufactured goods. Contrary to the finance-growth literature, however, the finance-trade nexus literature has so far neglected the role of nonlinear effects in the relationship between the two variables. In this paper, we aim at filling this important gap in the literature, giving strong empirical evidence on two related issues: First, financial development indeed exerts a positive effect on the level of trade openness, but the marginal effect decreases with the size of the financial sector. Second, our findings suggest that given the strong financial deepening in many countries in the past few decades, this temporary financial boost to global trade growth has become much weaker in recent years.

Stream A: Education and Employment (room C1.06)

Exploring the dose response function for participants of a training programme before and after the hit of the economic crisis (evidence from Slovak administrative data)

Miroslav Štefánik
Slovak Academy of Sciences

Submitted article presents evidence for a particular training measure in Slovakia. This measure was implemented with positive impact in 2008 and negative impact in 2011-2012. Here we apply a routine to estimate the dose response function, considering the continuous nature of the treatment, by following the length of the trainings in days. Working income during 2 years after the training is used to construct the outcome indicator. Results are estimated separately for male training participants of 2008 and 2011-2012. A rich administrative dataset is employed in the analysis. Estimations rely on the concept of generalized propensity score and take advantage of recently introduced estimation methods. The results show substantial differences in the dose response function between the two selected periods. For 2008 participants the function has a U shape, while for 2011-2012 participants an inverted U is clearly observable.

Socioeconomic status and its effect on value added

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Extended abstract: The Lisbon strategy requires European education systems to produce applicable graduates in the present environment of increasing competitiveness and social cohesion. Inclusive growth starts with providing effective education to all children regardless of their sex, disabil-

ities or socio-economic status (SES). Slovakia has recently experienced a fired debate on the effectiveness of our educational system where major attention has been drawn towards three key topics – teacher salaries and teacher competences, social exclusion of pupils with low socioeconomic status and financial or material support of schools. In this paper we present the methodology of identifying the value added as one of the indicators of school effectiveness, and more importantly – the methodology for improving the model of value added by accounting for socioeconomic background of pupils. Value added is a tool for monitoring knowledge and competences of pupils during the educational process. Aim is to provide feedback to teachers and the decision-making sector about quality of education and possibilities of its improving, as well as about contextual factors, which are influencing the quality of education. In the sample of 26 schools and 1229 pupils we observe their results in nationwide cognitive testing, information about their socioeconomic background and basic personal characteristics. In the second chapter, we perform a widespread statistical description of the population of pupils and based on this description we collect the first set of potential influencing variables in the model of value added. In the third chapter we present, for the first time in Slovakia, the methodology for identifying unobserved classes of pupils based on their socioeconomic background. The Latent Class Analysis reveals that the whole population of pupils in Slovakia can be divided into four latent classes: (1) socially and culturally disadvantaged, (2) only culturally disadvantaged, (3) socially disadvantaged and otherwise affluent, (4) affluent in all fields. In the fourth chapter we present the hierarchic model of value added together with the methodology for constructing such model. We also try to improve the standard model of value added by adding SES to the equation. We use our previous findings about the latent classes to include SES to the model as four dummy variables of latent class membership. After accounting for SES in the hierarchic linear regression we find that the effect of socioeconomic status is not significant which might suggest that the effect of SES on value added is not as strong as most of the public debate claims. This paper is unique mainly because it doesn´t only provide an evaluation of the effectiveness of the Slovak educational system, but it establishes a new methodology for measuring the value added in more precise and realistic way by accounting for the socioeconomic status of pupils. The paper also presents a methodology for revealing unobserved composition of population, namely socioeconomic background and identifying significant types of social disadvantage. Remarkable is our finding that no latent class can be interpreted as economically disadvantaged thus suggesting that family wealth plays little role in determining school achievement of children in Slovakia.

How Physicians Affect Their Patients' Employment Outcomes Through Deciding on Sick Leave Durations

Alexander Ahammer
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In this paper I expose a mechanism through which general practitioners (GPs) indirectly affect their patients' employment outcomes by deciding on the length of sickness absences. I establish an instrumental variables framework where identification of spell durations is based on supply-side certification propensity measures estimated from the data. Comparing otherwise equal patients who differ merely with respect to their GP's certification propensity, I find that a marginal day of sick leave - that is, a day of sick leave which is only certified because a worker's GP has a high propensity to certify sick leaves - decreases employment probabilities persistently by 0.45% - 0.69% up until 18 months after the sick leave.

Conversely, the risk of becoming unemployed increases by 0.28% - 0.44% due to the additional day of sick leave. These effects are mostly driven by men with comparably low job tenure and migratory background. Several robustness checks are provided in an attempt to show that identification is not impaired by endogenous matching between patients and GPs. My results bear important implications for doctors: In case of doubt, it is preferable to certify shorter sick leaves in order to protect employment status of the patient.

Employment Growth and Labour Elasticity in V4 countries: Structural decomposition analysis

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Martin Hudcovský
University of Economics in Bratislava

Karol Morvay
University of Economics in Bratislava

In the present paper, we analyse the determinants of employment growth in V4 countries. While a standard approach relies on the parametric estimation of labour elasticity coefficients, we employ a novel approach based on structural decomposition analysis. This allows us to identify several determinants that mitigate the effects of economic growth on employment. We decompose the overall change in employment into the contribution of six factors: changes in labour productivity, changes in import of intermediate products, changes in the structure of production, changes in the final demand structure by industries and by sectors, and a change in final demand volume. We show that besides generally accepted influence of labour productivity growth on employment, other factors such as structural changes and changes in final demand played an important role in employment changes. These results shed some light on low labour elasticity in V4 countries that goes beyond the simple labour productivity growth argument.

Human resources and innovation: Total Factor Productivity and foreign human capital

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Alessandra Venturini
Migration Policy Centre, EUI

Claudio Fassio
CIRCLE, Lund University

This paper analyses the role of migrants in innovation in three largest European countries – France, Germany and the United Kingdom – in the years 1994-2007, using Total Factor Productivity as a measure of innovation. Unlike previous research, which mainly employs a regional approach, our analysis is at the sectoral level: this allows us to distinguish the real contribution of migrants to innovation from possible inter-sectoral complementarities, which might as well foster innovation. We control for the different components of human-capital, such as education, age and diversity of origin, and adopt instrumental variables strategies to address the possible endogeneity of migration. The results show that overall migrants are relevant in all sectors, but with some important differences: highly-educated migrants show a larger positive effect in the high-tech sectors, while middle- and low-educated ones are more relevant in manufacturing. The diversity of countries of origin contributes to innovation only in the services sectors.

The effects of international migration on unionisation in Austria

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Johannes Kepler University Linz

René Böheim
Johannes Kepler University Linz

Rudolf Winter-Ebmer
Johannes Kepler University Linz

This paper analyses the effects of the increase of migrant share of workers on unionisation rates in Austrian firms over the period 2002–2012. We instrument the change in migration on a combination of past settlements and aggregate increases in migration following the shift-share approach proposed by Card (2001). Next to changes in migration levels at the firm level, we also explore the mechanisms through this impact operates, determining whether workers actively change their union status or whether changes in unionisation only come from worker turnover at the firm level. Our results suggest the lower union density in firms with a higher proportion of foreign workers is driven not by native employees leaving unions but by the different composition of turnover depending on the share of migrants in the firm.

Labor-Market Effects of EU Immigration to the UK: Individual Level Analysis

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Istanbul University

Jan Fidrmuc
Brunel University

We use the UK Labor Force Survey to investigate the impact of immigration density at the regional level for individual-level labor market outcomes. In doing so, we take account of the resident workers' human capital level, to allow immigration to have different effect on resident workers with low, intermediate and high skill level. We consider migrants from the European Economic Area, who face no restrictions on residence and employment in the UK during the period that we analyze. We particularly focus on whether the migrants from the new member states of the EU have a different labor-market impact than the migrants from the old member states. Our results suggest that European immigration has important distributional effects that depend on UK workers' skills as well as gender. Contrary to expectations, the labor-market impact of immigrants from the new EU member states does not appear dramatically different from those from the rest of Europe.

The Economic Impact of East-West Migration on the European Union

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Mariola Pytlikova
CERGE-EI, VSB-TU Ostrava

This study contributes to the literature on destination-country consequences of international migration with investigations on the effects of immigration from the Eastern Partnership Countries and the new EU member states o the economies of old EU member states over years 1995-2010. Using a novel international migration dataset and an empirical model accounting for the endogeneity of migration flows we find positive and significant effects of post-enlargement migration flows from the new EU member states on GDP, GDP per capita, and employment rate and negative effect on output per worker. We however find small but statistically significant negative effects of migration from the Eastern Partnership countries on GDP, GDP per capita, employment rate, and capital stock, but a positive significant effect on capital-to-labor ratio. These results mark an economic success of EU enlargement and free movement of workers and call for a liberalization of labor mobility with countries neighboring the EU.

Time-frequency analysis of co-movement and contagion in EU sovereign bond markets

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UTIA AV CR

Filip Smolik
IES FSV

We study the co-movement of the 10-year sovereign bond yields of 11 EU countries. Our analysis is focused mainly on changes in co-movement during the financial crisis period, especially around two significant dates - the fall of Lehman Brothers, September 15, 2008, and the announcement of the increase of Greece's public deficit on October 20, 2009. We study co-movement dynamics using wavelet analysis, which allows us to observe how co-movement changes across frequencies and over time. We divide the countries into three groups: the core of the Eurozone, the periphery of the Eurozone and the states outside the Eurozone. The results indicate that co-movement decreased considerably during the crisis period for all country pairs but that there are significant differences among the groups. Furthermore, we demonstrate that the co-movement of bond yields is frequency dependent.

Pro-poor Growth in Post-Communist Transition Countries

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Institute of Economic Research Slovak Academy of Sciences

Filip Ostrihoň
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This paper aims to provide an insight into the fairness of income growth redistribution among the society in eight post-communist transition economies after the EU accession. We distinguish pre-crisis and post-crisis time periods. Furthermore, we identify the key elements of the poverty development during the EU membership in terms of economic crisis in each country. The results showed that particular countries may complement their redistribution policies, as the reactions during both examined time periods varied substantially across all examined countries.

Is the Maastricht debt limit safe enough for Slovakia?

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Council for Budget Responsibility

We study the interactions among fiscal policy, fiscal limits and sovereign risk premia. The fiscal limit, which measures the government's ability to service its debt, arises endogenously from dynamic Laffer curves and is a random variable. A nonlinear relationship between sovereign risk premia and the level of government debt then emerges in equilibrium. The model is calibrated to Slovak data and we study the impact of various model parameters on the distribution of the fiscal limit. Fiscal limit distributions obtained via Markov–Chain–Monte–Carlo regime switching algorithm depend on the rate of growth of government transfers, the degree of countercyclicality of policy, and the distribution of the underlying economic conditions. We find that it is considerably more heavy–tailed compared with the one usually obtained in the literature for advanced economies, and is very sensitive to the size and rate of growth of transfers. The main policy message is that the Maastricht debt limit is not safe enough for

Slovakia: although in the equilibrium the chance of country default is 10 percent when the debt is 60 percent of GDP, it increases dramatically to approximately 40 percent in bad times (when productivity falls by almost 8 percent). A well-designed fiscal policy involving a deceleration in the growth of transfers can reduce the chance of default significantly.

Regional Economic Growth in the EU: Economic Integration and Redistribution

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Brunel University

Martin Hulényi
Government Office of the Slovak Republic

Katarína Rimegová
Government Office of the Slovak Republic

We analyze the relative contributions of economic integration and EU structural and cohesion funds to economic growth of European regions. We find that the countries that joined the EU in 2004 and 2007 experience faster economic growth, greater investment, and rising employment and hours worked after their EU entry. The receipts of EU funds are also positively correlated with economic growth, but the results are mixed and the effects are weaker in the new member states than elsewhere. The EU funds, nevertheless, translate into significant and substantial improvements in investment, employment and hours worked.

Distance is crucially important, at least for neighbors: Foreign employment at the district level

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Ifo Institute

Wolfgang Nagl
Institute for Advanced Studies

We study the regional representation of foreign workers from each EU-27 country in German regions. For most of the German neighboring countries, we find that distance significantly matters for the workplace location in Germany. The striking exception is Poland. For non-neighboring countries, distance only matters for countries which are geographically close to Germany. Distance has also a negative effect on the net-migrations flows of foreign workers from geographically close countries. Labor market conditions, amenities and cultural factors are also of subtantial importance. We investigate the effects of a rich set of determinants of migration on the district level by estimating fixed and random effects models.

Evaluating the effectiveness of policy measures to support spatial mobility in Slovakia (the Contribution for commuting to work and a the Contribution for resettlement)

Miroslav Štefánik
Slovak Academy of Sciences

This paper evaluates the impact of an active labour market measure providing financial contributions to cover costs related to spatial mobility of unemployed. For this purpose administrative data from the obligatory social insurance database and the official register of unemployed were linked. Two indicators of outcome are identified, commuting time and

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income of individuals. Richness of the data allowed us to use propensity score matching in order to rule out possible selectivity issues. After achieving satisfactory balance, we have yielded comprehensive and robust, significant positive effects of the Contribution for commuting, on both outcomes: income and commuting time. These results differ regionally and based in individual characteristics of the beneficiaries. Contribution for resettlement is related to positive and significant income effect, but weaker in comparison to the Contribution for resettlement.

Migrating Extremists

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We show that migrating extremists shape political landscapes toward their ideology in the long run. We exploit the unexpected division of the state of Upper Austria into a US and a Soviet occupation zone after WWII. Zoning prompts large-scale Nazi migration to US occupied regions. Regions that witnessed a Nazi influx exhibit significantly higher voting shares for the right-wing Freedom Party of Austria (FPĂ–) throughout the entire post-WWII period, but not before WWII. We can exclude other channels that may have affected post-war elections, including differences in US and Soviet denazification and occupation policies, bomb attacks, Volksdeutsche refugees and suppression by other political parties. We show that extremism is transmitted through family ties and local party branches. We find that the surnames of FPĂ– local election candidates in 2015 in the former US zone are more prevalent in 1942 phonebook data (Reichstelefonbuch) of the former Soviet zone compared to other parties.

Students migration to higher education in Slovakia: a spatial discrete choice model

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Universities are considered to be a key institution of human capital formation in the economy. However the distribution of human capital gains across the economy is affected by the spatial structure of higher education and migration decisions of students and graduates. Empirical research has shown that the main factors of the migration decision of potential students include individual characteristics (age, gender) the quality of higher education and socio economic characteristics of the higher education region and domicile region. Within this selection mechanism distance to higher education plays an important role. If we assume that transportation costs, information accessibility and family ties play inhibiting role, then the migration decision is subject to distance deterrence effect. We build our research on the utility concept using the spatial discrete choice model. The migration destination choice problem is the selection of one option (destination) from a finite, discrete set of alternatives. We use cross-section data of 39078 individuals from Slovakia. We use a general migration probability model in the design of logit model. Our results suggest that more developed regions attract more students (pull factor) and at the same time less developed regions repel students (push factors). On the supply side the spatial structure of universities matters as well as the structure of study programmes in the region. Individual characteristics (gender and age) matter as well, although there are important regional differences. As a policy recommendation we think that in order to achieve more balanced regional development in Slovakia, it is crucial to combine education and labour market policies on the regional level.

Environmental regulation and eco-innovation: insights from diffusion of innovations theory

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The paper analyses the relationship between environmental regulation and environmental innovation with insights from the diffusion of innovations theory. We base the analysis on three theoretical approaches: neoclassical, evolutionary and induced innovation. The relationship is tested using a German firm-based panel and a count data model. We estimate the propensity of firms to innovate in response to five initiating factors, namely the fulfillment of existing legal requirements, expectations towards future legal requirements, financial incentives, demand for environmental innovations and self-commitment. We also check for the relevance of the interactions between policy instruments as well as the influence of internal factors and path dependency. In addition, we control for R&D intensity, the region, the sector of the company and filter for companies that account for their environmental impact. The results answer the central question concerning the design of environmental policies in order to foster innovation. Comparing a static model to a dynamic one, we show that only long term objectives and market incentives are positively associated with environmental innovation. Conventional regulatory tools, namely legally binding instruments, are not effective for triggering innovative behaviour at the firm level. Lastly, we show that the threat of future environmental regulation is a necessary condition for self-regulation.

A simple dynamic climate cooperation model with large coalitions and deep emissions cuts

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A standard result from the game theoretic literature on international environ- mental agreements is that coalitions are either "broad but shallow" or "narrow but deep". Hence, the stable coalition size is small when the potential welfare gains are large. We modify a standard climate coalition game by adding a - seemingly - small but realistic feature: we allow countries to delay climate negotiations until the next "round" if a coalition forms but decides to remain inactive. It turns out that results are surprisingly different under this modification. In particular, a large coalition with deep emissions cuts forms if countries are sufficiently patient. Our results also indicate that countries should try hard to overcome coordination problems in the formation of a coalition. A more cooperative outcome may then be reached, and it may be reached more quickly.

Environmental Protection, Cohesion Policy and Regional Economies in the EU

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Martin Hulényi
Government Office of the Slovak Republic

We consider the effects of establishing environmental conservation areas under the EU's Natura 2000 program on regional economic development in the European Union. We find that regions in which Natura 2000 sites are created tend to experience an acceleration of economic growth in the subsequent period. Our results suggest that it is the creation of environmentally protected regions that is associated with an improvement in growth, rather than the reverse causality, whereby faster-growing regions are more likely to grant protection to endangered species and habitats.

Olga Zajkowska
Warsaw University of Life Scienses

The effect of having conservation areas is economically significant when compared to the effect of receiving Cohesion Policy payments.

The value of commitment and delegation for the control of greenhouse gas emissions

Paul Pichler
University of Vienna

Gerhard Sorger
University of Vienna

We study the potential welfare gains from delegating environmental policies to a supranational authority in a simple model of climate change. Countries contribute to a public bad (emission of greenhouse gases) and invest in green technologies (cf. Harstad, 2012, ReStud). While they commit to respect emission quotas assigned by the authority, countries decide on their investment policies individually. We show that the authority's optimal policy problem is dynamically inconsistent and study optimal environmental policies under commitment versus discretion. In particular, we examine the optimal design (preferences) of the supranational authority under lack of commitment and show that, surprisingly, the authority should put relatively little weight on the global costs of climate change.

Stream F: Empirical Firm-level Studies (room C1.08)

Hints for Hits on Hithit.cz: Determinants of Success on a Czech Crowdfunding Platform

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In this paper, I provide an empirical analysis of determinants that drive success of reward-based crowdfunding campaigns on a Czech web platform Hithit.cz. Using data about 933 closed project, both successful and unsuccessful, I demonstrate that presentation indeed matters. My results suggest that potential contributors are attracted by larger variety of rewards offered and that they prefer projects that promise to deliver these rewards sooner. I also show that both larger number of contributors and larger contributed amounts lead to the success of a campaign, but that both cannot be achieved with the same strategy.

Market Structure and Competition in Transition: Results from a Spatial Analysis

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Karol Morvay
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The present paper provides first microlevel (indirect) empirical evidence on changes in the determinants of firm profitability, the role of fixed and sunk costs, as well as the nature of competition for a transition economy. We estimate size thresholds required to support different numbers of firms for four retail and professional service industries in a large number of geographic markets in Slovakia. The three time periods in the analysis (1995, 2001 and 2010) characterize different stages of the transition process. Specific emphasis is given to spatial spill-over effects between local markets. Estimation results obtained from a spatial ordered probit model suggest that entry barriers have declined considerably (except for restaurants) and the intensity of competition has increased. We further find that demand spill-overs and/or the effects associated with a positive correlation in unobservable explanatory variables seem to outweigh neg-

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ative spill-over effects caused by competitive forces between neighboring cities and villages. The importance of these spatial spill-over effects differs across industries.

Innovation, competition and productivity: firm level evidence for Eastern Europe and Central Asia

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Klaus Friesenbichler
Austrian Institute of Economic Research (WIFO)

We investigate the drivers of firm-level productivity in catching-up economies by jointly estimating its relationship to innovation and competition using data from the EBRD-WB Business Environment and Enterprise Performance Survey (BEEPS) in Eastern Europe and Central Asia. The findings confirm an inverted-U shaped impact of competition on R&D. Both competition and innovation have a simultaneous positive effect on labour productivity in terms of either sales or value added per employee, as does a high share of university graduates and foreign ownership. Further positive impacts come from firm size, exports, or population density. Innovation and foreign ownership appear to be the strongest drivers of multifactor productivity.

Stream G: Public Finances (room C1.10)

EU Taxes as Genuine Own Resource to Finance the EU Budget – Pros, Cons and Sustainability-oriented Criteria to Evaluate Potential Tax Candidates

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WIFO

Alexander Krenek
WIFO

Danuše Nerudová
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Marian Dobranschi
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EU taxes play a key role in political and economic discussions about the future of the EU own resource system, and their desirability can vary accordingly. It is therefore essential to clearly articulate the goals which are to be achieved by the introduction of this new financing tool. This paper provides a critical overview of advantages and disadvantages of EU taxes. Reviewing the conventional fiscal federalism and political economy literature on this topic it can be concluded that there is no obvious (overall) case for funding the EU budget with EU taxes rather than with contributions by Member States which currently make up for the lion's share of EU own resources. There are, however, some specific issues arising from a sustainability perspective, which could be addressed with the introduction of EU taxes. Departing from a comprehensive concept of sustainability, which is based on the economic, the social, the environmental and the cultural/institutional pillar of sustainability, the paper reviews sustainability gaps in taxation in the EU. EU taxes if designed accordingly may be suitable instruments to reduce these sustainability gaps. The paper also develops innovative criteria based on the four dimensions of sustainability that may be used in a next step to evaluate potential candidates for EU taxes.

Remittances and Public Finances: Evidence from Oil-Price Shocks

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ZEW Mannheim, IZA, CesIfo

We study the effect of inflowing remittances - a major source of capital for many countries - on tax-revenues and tax-policy. Instrumenting remittances with changes in the oil-price interacted with a country's distance to oil-producing countries, we find that remittances have a large positive effect on VAT revenues but no effect on income-tax revenues. This suggests that remittances often escape the income tax but can be taxed via consumption. We further show that tax policy is responsive to shocks in incoming remittances: remittances make the adoption of VAT-systems more likely, and they lead to lower VAT-rates and higher income-tax rates.

Opportunistic politicians and fiscal outcomes: The curious case of Vorarlberg

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Agenda Austria

Using a unique set of electoral rules present in the Austrian state of Vorarlberg, we explore the question whether direct election of the mayor affects the size of local governments. Using difference-in-differences estimation and propensity score matching, we find evidence that direct elections of the mayor are associated with lower expenditure on public administration and public personnel, and higher expenditure in the visible categories of spending i.e. transportation infrastructure and subsidies to the economy.

Optimal fiscal policy designs for Austria

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University of Klagenfurt

Viktoria Blueschke
University of Klagenfurt

Norbert Wohlgemuth
University of Klagenfurt

In this study we estimate a small-sized macroeconomic model of the Austrian economy. This model, called ATFISPOL, is used for simulation and optimization experiments. For the latter, the OPTCON algorithm is applied to find numerical solutions of nonlinear quadratic optimal control problems. With ATFISPOL we analyze optimal paths of fiscal policy in Austria in a situation characterized by a strong trade-off between the need to foster economic activity and to stabilize public finances. Despite the model's rather Keynesian style, the optimization results reject expansive fiscal policy with government expenditures on average some 8% below the results obtained from simulation. Furthermore, we introduce two export shocks, a positive and a negative one, to analyze the effects of such shocks on the Austrian economy, and to identify the overall importance of exports. The optimal fiscal policy is found to be restrictive in both scenarios, and shows a high degree of dependence of the economic performance on exports. In view of the model assumptions, particularly to equal weighting of all macroeconomic targets, the calculated results can only be interpreted as a rejection of incurring further public debt.

Hospitals and the generic versus brand-name prescription decision in the outpatient sector

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Johannes Kepler University Linz

Thomas Schober
Johannes Kepler University Linz

Health care payers try to reduce costs by promoting the use of cheaper generic drugs. We show that there are strong interrelations in drug prescriptions between the inpatient and the outpatient sector using a large administrative dataset from Austria. Patients with prior hospital visits have a significantly lower probability to receive a generic drug in the outpatient sector. The size of the effect depends on both patient and doctor characteristics which can be related to differences in hospital treatment and heterogeneity in physicians' adherence to hospital choices. The spillover effects create cost ineffectiveness, in particular in healthcare systems with separate funding of inpatient and outpatient service provision.

Can use of Electronic Health Records in General Practice improve quality of care for diabetes patients? Evidence from a natural experiment in Denmark

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Chronically ill patients are due to the demographic transition towards an older population taking up a larger share of health care spending. Disease management programmes (DMP) in the general practice sector are increasingly used to increase health of these patients and reduce hospitalizations and thereby costs. The aim of this paper is to assess whether general practice (GP) enrolment in a DMP based on electronic Health Records (EHR) had an impact on diabetes patients total hospitalizations and hospitalizations with diabetes related Ambulatory Care Sensitive Conditions (ACSC). We use a rich nationwide panel dataset (2004-2013) with information of stepwise enrolment of GPs in the EHR program. The stepwise enrolment allows for a control group identification strategy. However, as time of enrolment, were voluntary within a 3 year framework (2011-2013) we expect selection bias. The dataset includes rich information on observables expected to explain selection into the programme as well as a long series of pre-treatment outcomes (2004-2010). To solve the selection problem, following the recent literature on causal inference with panel data, we use a standard propensity score matching estimator (PSM hereafter) were we also match on pre-treatment outcomes. Assuming that all the unobserved confounders were already present in the pre-treatment outcomes we control for both observable and unobservable (time invariant and time varying)confounders. Our results show that enrolment in EHR reduced diabetes patients risk of hospitalizations with up to 10%. Treatment effects are higher and more significant after two years of enrolment. The results are comparable with studies on EHR programs from California and the magnitude of the reduction in hospitalizations are comparable to DMP's including both EHR and financial incentives. Our results hence indicate that more analysis on disentangling the role of EHR from financial incentives may be important to understand how drive quality improvement.

Does religion make you sick? Evidence that a more secular background promotes health

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Religious beliefs and practices influence individual lives and societies in many ways. In this study, we look at how religion affects health, which in turn is important both for individual well-being and for the economy. We find that being religious worsens self-assessed health. Our particular contribution consists of applying a novel method for establishing the causal direction from religiousness to health. We look at second-generation immigrants in 30 European countries and relate their health to different measures of religiousness in their mothers' birth countries. Religiousness in the mothers' birth countries is closely related to children's religiosity, through transmission in the family, and we are therefore able to use religiousness in the ancestral country as a measure of individual religiosity in the new country. Since individual health cannot affect religiosity in the mothers' home countries, we can rule out reverse causality. The negative estimate of religiousness on health that we identify can stem from religious people being less concerned with life on earth, being more "fatalistic", having lower trust or being more mentally strained by internal or external conflicts. This finding of a negative estimate furthermore suggests that the positive correlations between health and religiousness in the earlier literature are not due to religion promoting health.

Work Histories and Lifetime Unemployment

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Using variation in lifetime unemployment across workers, I show that 10% of workers account for two-thirds of prime-age unemployment. Moreover, differences in job-separation rates between the most unemployed and the rest are always large over the life cycle, while differences in job-finnding rates start small and then increase. I show that a model of unobserved heterogeneity across workers, in which agents learn workers' types from their labor market history, is quantitatively consistent with this fact and with the concentration and persistence of lifetime unemployment observed in the data. Information frictions can account for the whole decrease in job-finding rates of the most unemployed workers over the life cycle. Concentration and persistence of prime-age unemployment are mainly explained by heterogeneity across workers.

Contracting frictions and inefficient layoffs of older workers

Martin Kerndler
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In light of the low re-employment opportunities that workers above age 55 face in continental Europe, inefficient separations of older workers may generate a significant welfare loss for the economy. The economic literature therefore suggests eliminating any governmental policies that distort firing and retirement decisions. In this paper, I argue that even without any governmental distortions, there may still be inefficient destruction of older workers' jobs due to market-inherent contracting frictions that may arise due to asymmetric information. I demonstrate this in a two period model of the labor market where risk-averse workers choose their preferred wage contract from a restricted subset of the contract space. I find that an equilibrium with bilaterally inefficient layoffs of older workers emerges under certain conditions. These conditions are satisfied more easily if high outside options, such as early retirement benefits, become available for

the elderly. This prediction is consistent with empirical studies postulating that generous social security systems increase the incidence of being 'pushed' into early retirement by the employer.

The Effects of Productivity and Benefits on Unemployment: Breaking the Link

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POP at UNU-MERIT

Christian Merkl
FAU

Britta Kohlbrecher
FAU

Dennis J. Snower
Kiel Institute for the World Economy

In the standard macroeconnomic search and matching model of the labor market, there is a tight link between the effects of (i) productivity on unemployment and (ii)unemployment benefits on unemployment. This tight link is at odds with the empirical literature. We present a two-sided model of the labor market search where the household and firm decisions are decomposed into job offers, job acceptances, firing and quits. In such a model unemployment benefits affect households' behavior directly, without having to run via the bargained wage. In line with the evidence productivity shocks may have quantitatively large effects on unemployment, while benefits only have moderate effects. Our analysis shows the importance of investigating the effects of policies on the households' work incentives and the firms' employment incentives within the search process.

The Relationship between Macroeconomic Volatility and Growth: Dynamics, Country Interactions and Nonlinearities

Steven Trypsteen
University of Nottingham

The paper shows that accounting for dynamics in the volatility effect, country interactions, structural breaks and heterogeneous effects are important to capture the empirical relationship between macroeconomic volatility and growth, whereas nonlinearities in the growth process are less important. The modelling approach also allows to distinguish between domestic and external volatility and finds that the former is positively associated and that the latter is negatively associated with growth. These results are obtained by estimating country specific GARCH-M models of growth for a set of OECD countries augmented with lags of volatility, cross-country weighted averages, nonlinear terms and shift dummies.

The Chinese-African relations in energy sector

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The growing involvement of China on African continent is seen by economists, political scientists and world leaders anywhere between useful cooperation of developing nations to neo-colonialism with China as a new centre for the African periphery. China is criticised for plundering African natural resources, offering unjust loans to underdeveloped countries and creating new era of dependency in Africa. The most troubling features of Chinese involvement in Africa, as perceived especially from USA and Europe, is the lack of democratic conditionality of capital flows. Despite the criticism, Chinese investment in Africa continues to grow significantly

and the relations between China and several African countries begin to be very tight. In this article we focus on the relation between China on one side and individual African economies on the other, and also the relation between China and the whole African continent with focus on energy sector in these economies. The aim of the paper is to identify the intensity of China-Africa relation in energy sector based on the data on external trade and investment. We also compare the countries in Africa according to their dependency on Chinese trade and investment in energy sector and determine for which economies Chinese partnership is vital and, on the other hand, which partnerships in Africa are crucial for Chinese energy sector. The article uses data from all African economies except for Somalia, where the lasting political instability results in unreliable or missing datasets. The data for the research are retrieved from UNCTAD database and IEA database. We used statistical software PSPP to analyse the data. Partial results show that Chinese investment in African energy sector is still growing and diverging across several energy resources. Chinese involvement in oil extracting facilities in Africa is long known and discussed but China continues to expand to other areas. In Africa, Chinese firms have so far invested in solar power plants, hydropower plants and even energy from biomass. In electricity sector the biggest beneficiaries of Chinese investment among African economies are Ethiopia, Ghana, Kenya and Nigeria while in broader energy sector Chinese involvement is substantial in many more countries. The biggest beneficiaries of Chinese investment in energy sector are Sudan, Ethiopia, Zambia Zimbabwe, Madagascar and Ghana. In the external trade the dependency in energy sector changes the direction and China is more and more dependent on oil and gas imports from African continent as a result of Chinese growing demand and exhaustion of Chinese own sources of energy, mainly coal. Africa is the second biggest source of oil for China, the majority of Chinese oil imports comes from Middle East. Almost all Chinese biggest trade partners in Africa are oil exporting countries, with the exception of South Africa, the economy rich in other valuable mineral resources.

The role of US based FDI flows for global output dynamics

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This paper uses a global vector autoregressive (GVAR) model to analyze the relationship between FDI inflows and output dynamics in a multicountry context. The GVAR model enables us to make two important contributions: First, to model international linkages among a large number of countries, which is a key asset given the diversity of countries involved, and second, to model foreign direct investment and output dynamics jointly. The country-specific small-dimensional vector autoregressive submodels are estimated using a Bayesian version of the model coupled with stochastic search variable selection priors to account for model uncertainty. The results show that US outbound FDI has a positive long-term effect on output. Asian and Latin American economies tend to react faster and also stronger than Western European countries. Forecast error variance decompositions indicate that FDI plays a prominent role in explaining GDP fluctuations, especially in emerging market economies.

Europe's Export Superstars - it's the Organization

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What explains Germany's superb export performance? Is Germany's export behaviour very distinct compared to other European countries? In this paper, we explore the organizational responses to competition of 14,000 exporting firms in 7 European countries. We examine the export business model of the median exporter as well as of the top 1% exporters in each country accounting for 20 % to 55 % of total exports. What do these firms do to become superstars? We find, first, that the export market share of the median exporter in each of the countries to the world are more than tripled (in some cases the export market share increases 10 fold) for firms which combine decentralized management with offshoring production to low wage countries. Exporters which abstain from any organizational adjustment do very badly. Decentralized management provides incentives for workers for product improvements allowing exporters to compete on quality. Offshoring production to low wage countries reduces costs allowing exporters to compete on prices. Second, we find that Germany is the leading quality exporter in Europe followed by Austria and Spain. Among the top 10 % percent of exporters there is no single firm with low quality in Germany and Austria which suggest that decentralized management has provided incentives for quality in these countries. Third, Germany's exports are less vulnerable to price increases, while exports in France and Italy respond strongly to price changes and thus reducing costs via offshoring benefit these countries most.

Stream C: European Macroeconomics (room C1.09)

Economic Convergence of Central and Eastern European EU Member States over the Last Decade (2004-2014)

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This paper takes stock of the progress achieved by the ten Central and Eastern European countries, which entered the EU in 2004 and 2007, in terms of their real and nominal economic convergence vis-Ă -vis the twelve EU Member States which were part of the euro area in 2004. It thus offers a longer-term perspective on the convergence process while providing a horizontal, cross-country comparison of convergence. Due to its different perspective and purpose, the paper does not assess the compliance with the formal criteria for euro adoption. The paper shows that between 2004 and 2014 most of these countries achieved significant real and nominal convergence vis-Ă -vis the initial twelve euro-area members.

Inequality and Economic Growth Across Countries of the Eurozone

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Aleksandrs Dahs
University of Latvia

The recovery of the EU economy after the financial crisis is accompanied by sluggish and unsteady growth at rather high levels of an inequality. The relationship between income inequality and the rate of economic growth still remains the controversial issue with discrepant results reported in many empirical and theoretical researches on growth and development. We explore the impact of income inequality, poverty, and wealth on the rate of economic growth in the Eurozone. We find that the effect of income inequality on economic growth is statistically insignificant, whereas poverty

and saving have a negative, statistically significant effect on growth, the effect of financial assets is positive and statistically significant. Besides, we reveal a negative, statistically significant effect of consumption on growth. We show that dynamics of the link between inequality and growth across countries is inconsistent with the Kuznets hypothesis both for all observations and average values per country in the Eurozone.

Spillover Effects of Germany's Final Demand on Southern Europe

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The New School for Social Research

Enno Schröder
INET, The New School for Social Research

We calibrate a closed multi-country input-output model with data from the World Input-Output Database to estimate spillover effects of Germany's final demand on GDP, employment, and the trade balance in Southern European countries. We find that spillover effects are small. Germany alone is unable to make a significant contribution to the external adjustment process in the European South. A coordinated asymmetric expansion would help.

Game of Thrones: Accommodating Monetary Policies in a Monetary Union

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Alpen-Adria Universität Klagenfurt

Reinhard Neck
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In this paper we present an application of the dynamic tracking games framework to a monetary union. We use a small stylized nonlinear three-country macroeconomic model of a monetary union for analysing the interactions between fiscal (governments) and monetary (common central bank) policy makers, assuming different objective functions of these decision makers. Using the OPTGAME algorithm we calculate solutions for several games: a noncooperative solution where each government and the central bank plays against each other (a feedback Nash equilibrium solution), a fully cooperative solution with all players following a joint course of action (a Pareto optimal solution), and three solutions where various coalitions (subsets of the players) play against coalitions of the other players in a noncooperative way. It turns out that the fully cooperative solution yields the best results, the noncooperative solution fares worse, and the coalition games lie in between, with a broad coalition of the fiscally more responsible countries and the central bank against the less thrifty country coming closest to the Pareto optimum.

Observing Each Other's Observations in a Bayesian Coordination Game

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We study a Bayesian coordination game where agents receive private information on the game's payoff structure. In addition, agents receive private signals that inform them of each other's private information. We show that once agents possess these different types of information, there exists a coordination game in the evaluation of this information. Even though the precisions of both signal types is exogenous, the precision with which agents forecast each other's actions in equilibrium turns out to be

endogenous. As a consequence, there exist multiple equilibria which differ with regard to the way that agents weight their private information to forecast each other's actions. Finally, even though all players' signals are of identical quality, it turns out that efficient equilibria are asymmetric.

Aspiration Based Choice

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Michael Richter
Yeshiva University

Begum Guney
Ozyegin University

Numerous studies and experiments suggest that aspirations for desired but perhaps unavailable alternatives influence decisions. A common finding is that an unavailable aspiration steers agents to choose similar available alternatives. We propose and axiomatically characterize a choice theory consistent with this aspirational effect. Similarity is modeled using a subjective metric derived from choice data. This model offers novel implications for (1) the effect of past consumption on current decisions, (2) social influence and conformity within a network, and (3) the distribution of welfare when firms compete for aspirational agents.

Typology of beliefs and rationalizability with many players

Michael Greinecker
University of Graz

This paper extends the Harsanyi types model of beliefs to games in which there can be both negligible and nonnegligible players. A universal type space exists in which every other type space can be uniquely embedded. The abstract types model is then used to explicitly characterize rationalizability, suitably formulated, as behavior compatible with common knowledge of rationality. A characterization of rationalizable behavior as behavior compatible with rationality and common belief in rationality is also obtained.

Core equivalence with differentiated commodities

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Michael Greinecker
Universität Graz

We provide new core equivalence results for atomless economies with differentiated commodities. We build on the framework of Ostroy and Zame (1994), in which commodity bundles are in the space $M(K)$ of signed Borel measures on a compact space K of commodity characteristics. We drop the assumption of Ostroy and Zame (1994) that K be metrizable, an assumption which puts a significant bound on the diversity of commodity characteristics being allowed. There might be few traders relative to the number of commodities and the condition "many more agents than commodities," as formalized and discussed in Tourky and Yannelis (2001) and Greinecker and Podczeck (2015) can fail. We show that the idea of Ostroy and Zame (1994) that core-equivalence holds provided that markets are physically or economically thick still goes through. Along the way, we provide a few improvements even for the case in which K is metrizable.

An Empirical Exploration into the Determinants of Net Errors and Omissions: The Case of Slovakia

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Menbere Workie Tiruneh
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This paper empirically explores the determinants of net errors and omissions (NEO) of Slovakia during the 1997-2014 period with emphasis on the 2008-2014 sub-period with distinct downturn in the NEO time series. The paper does not find a phenomenon of illicit financing (hot money flows) during the period under investigation. Instead the paper finds out that NEO is predominantly the result of shifts in the real sector of the economy. Likewise, our estimates have not confirmed any link between the evolution of NEO and trade mis-invoicing during the period. However, given the absence of detailed bidirectional data on the service sector, the results need further empirical investigation to determine the true extent of the impact of the service sector for the NEO item. Furthermore, given the statistically significant link between the evolution of foreign direct investments and NEO, we cannot rule out the prevalence of possible tax optimization.

Are Visegrad Exchange Rates Stable?

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Michal Gregus
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The purpose of this paper is the analysis of the stability of financial exchanges rates in Visegrad countries com-pared to US dollar. Financial stability of the exchanges rates represents a concept associated with the stability of banking sector and exchange markets in Central Europe. Our empirical study presented in this paper shows that the linear and nonlinear quantile regression gives the possibility to study the stock markets under normal and extreme conditions. Non-linear quantile regression uses copula functions. We have assumed the marginals to have Student t distribution. We have compared the results of quantile regression based on normal copula, the Student t copula or Clayton copula. Data used for our empirical study are based on period from January 2000 to December 2015 and comprise the crisis periods. Our study expands and complements existing study which analyzes the stability of exchange rates markets in Central and Eastern Europe. Our findings can have implica-tions for international investors in terms of risk management which should vary according to changes in the economic and financial global factors.

Demand- and supply-driven lending activities

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The European countries are more reliant on bank credits and bank intermediation of savings, than the rest of the world. The main objective of the paper is to identify the link between the European bank lending activities and macroeconomic shocks, banking controls and institutional variables. The microeconomic data are provided by the Bankscope database, macroeconomic shocks are drawn from Eurostat on-line databases. We employ robust OLS estimator and 2SLS estimations with lending standards as instruments to differentiate between supply-driven and demand-driven shocks. The policy implications of the results focus on credit crunch and sustained recovery in Europe after the financial crisis.

Housing and the Redistributive Effects of Monetary Policy

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How do the effects of shocks to an economy depend on the underlying asset structure? We study the redistributive effects of monetary policy in the framework of a large Overlapping Generations model, with endogenous housing choice, an endogenous down-payment constraint, and different types of shocks. The findings of the recent literature on redistribution and monetary policy are confirmed by our model, however we extend the analysis along an important dimension. We pay special attention to the structure (short-term versus long-term, nominal versus real) of assets and debt. Our results suggest that monetary policy has sizeable and long lasting effects on wealth distribution and consumption and that agents are affected differently according to the asset position they are holding. Inflation protected long term assets regularly provides better insurance against shocks, than their short-term nominal counterparts, which are subject to inflation. However, an economy equipped with real-long-term bonds has different implications for the aggregate economy and the monetary policy conducted by the central bank. House prices fluctuate more, when the economy is facing demand shocks, because housing and the other assets exhibit now similar characteristics, thus limiting the possibilities of insurance. Little movement of aggregate variables is masking strong effects on individual cohorts, which are mitigated by being adverse: while one set of agents increases their housing position after a shock, another fraction has to reduce their housing services in response. Monetary Policy should also consider the redistributive effects it induces, and how this depends on the underlying asset structure of the economy.

There is poverty convergence

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Martin Ravallion ("Why Don't We See Poverty Convergence?" American Economic Review, 102(1): 504-23; 2012) presents evidence against the existence of convergence in global poverty rates despite convergence in household mean income levels and the close linkage between income growth and poverty reduction. We show that this finding is driven by a specification that demands more than simple convergence in poverty headcount rates, and is additionally driven by poorly measured low poverty incidences. If we motivate the poverty convergence equation using an arguably superior semi-elasticity specification, we find highly significant and robust evidence of convergence in absolute poverty headcount ratios and poverty gaps in the developing world.

Bequests and the Accumulation of Wealth in the Eurozone

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This paper empirically compares the contribution of the two major wealth accumulation factors – earned income and inheritances – to the net wealth position of households in the Eurozone. The elasticities of both wealth sources differ considerably across countries and are overly non-linear. Depending on the position in the wealth distribution, an increase of

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one percentile in the income distribution corresponds to 0.1-0.6 percentiles in the net wealth distribution. We find substantially stronger effects for inheritances vis-Ă˘-vis income. In Greece, Portugal, and Austria, households have to climb around three percentiles in the income distribution to compensate a one percentile increase in the inheritance distribution. The findings clearly suggest that bequests play a stronger role in wealth accumulation than earned income.

Measuring the welfare impacts of food price increases: Evidence from rural Ethiopia

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Many studies have argued that the recent global food price spikes led to large welfare losses for households, based on the calculation of first-order welfare effects. I argue that these studies may have substantially overestimated the welfare changes that households actually experienced, as their methodological approach ignores behavioural responses by households and general equilibrium effects. To support my argument, I calculate first-order welfare effects in line with the literature and relate them to a second measure of welfare, the observed changes in consumption, using data from the Ethiopian Rural Household Surveys. The results indicate a weak association between the two welfare measures, when controlling for a range of other factors. I take this as indication that behavioural responses and general equilibrium effects should not be ignored. I find some heterogeneity in impacts according to household income, livestock holdings and labour market status.

Food consumption and diet quality choices across ethnic groups in Romania: a counterfactual analysis

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In this paper we study whether the economic and social situation of Roma people and their specific food preferences and cultural values affect food consumption patterns and the quality of their diets. In particular, we compare food consumption and diet quality of Roma people to the majority of Romanian and Hungarian population. To analyse the differentials in diet quality across ethnic groups we apply a modified counterfactual Blinder-Oaxaca (Blinder 1973; Oaxaca 1973) framework utilising Romanian Household expenditure data from 2004 to 2011. Our preliminary results show that even though the share of food expenditure in total disposable incomes has been declining on average, the food expenditure share for the Roma minority group is two to three times higher compared to the shares of Romanian and Hungarian ethnic groups; the Roma's diet diversity is lower by 15-18% compared to Romanian's and Hungarian's indicators. The composition of sources of macronutrients in the Roma diet is also quite different from the rest of the ethnic groups as Roma derive macronutrients and calories from cheaper food sources such as cereals and low quality condiments. The results from the Blinder-Oaxaca decomposition show that differences in the Hungarian diet compared to the Romanian majority are insignificant and are entirely explained by observed factors such as income and household characteristics. The case of the Roma diet is quite different: first, there are statistically significant differentials from the Romanian diet, and second, the differentials are significantly determined not only by differences in observed factors but also

contain substantial unexplained component which in the case of diet diversity exceeds in magnitude the explained component. Our preliminary interpretation for these results is that the unexplained differences in the Roma's dietary habits compared to the Romanian majority population (or to other ethnic groups) are largely likely due to the specificities of the Roma informal institutions (culture and traditions).

Tax Cuts on Food Consumption in Slovakia: What is the Impact on Diet Quality?

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In the present study we first estimate a Quadratic Almost Ideal Demand System for several aggregated food bundles and the residual group of non-food goods and services. The analysis is carried out on the recent Slovak household expenditure data covering period 2006-2012. We then simulate the impact of 10% tax cuts on selected food items on households' diet quality. Estimated results indicate that all food bundles are perceived as necessities by Slovak households. On the other hand, residual non-food category is considered a luxury with estimated budget elasticity higher than one. The estimated compensated own-price elasticties indicate that demand is price elastic for the fruit and vegetables bundle. Further look at the estimated elasticities reveals that low income households are generally more sensitive to price and income changes compared to high income ones. In our simulation exercise results suggest that only cutting taxes on consumption of fruits and vegetables improve diet quality. Such a tax cut represents the change of the Healthy Food Diversity index by about 2.5%. Moreover, the health gains are relatively similar for different income groups of households. However, hypothetical tax cuts on the rest of the food bundles have no impact or even worsen the quality of diets.