





# Seventh ECINEQ Meeting New York City - July 17-19, 2017



**Booklet of abstracts** 

# **Programme**

	Monday, July 17, 2017
9 30 AM	Registration
11.00 AM	Parallel Sessions (1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8)  Coffee Break
1.00 PM	Parallel Sessions (2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9)  Lunch
2.30 PM	Meeting ECINEQ Council and Executive Committee
4.00 PM	Parallel Sessions (3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9)  Coffee Break
5.30 AM	Institutional Welcome with Major Bill de Blasio and Paul Krugman
7.00 PM	<b>Keynote Lecture Peter H. Lindert:</b> The Rise and Future of Progressive Redistribution
	Tuesday, July 18, 2017
10.30 AM	Parallel Sessions (4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9)  Coffee Break
12.30 PM	Parallel Sessions (5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9) Lunch
2.00 PM	Meeting Editorial Board of the Journal of Economic Inequality
3.00 PM	Stone Lecture on Wealth Inequality by Gabriel Zucman  Tax Evasion and Inequality
4.45 PM	Parallel Sessions (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9)  Coffee Break
6.45 PM	Keynote Lecture Marc Fleurbaey:
	Inequalities, Social Justice and the Web of Social Interactions
	Wednesday, July 19, 2017
10.30 AM	Parallel Sessions (7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9)
12.30 PM	Coffee Break Parallel Sessions (8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9) Lunch
2.30 PM	Joseph Stiglitz plenary lecture  A Simple Model of Wealth Inequality and the Role of Capital Taxation in Overcoming It
4.00 PM	Parallel Sessions (9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8)  Coffee Break
5.45 PM	Keynote Lecture Frank Cowell: Inheritance, Inequality and the Idle Rich
6.45 PM	<b>ECINEQ General Assembly</b>
11.00 PM	Gala Dinner in Honor of Sir Tony Atkinson Hosted by Stone Center on Socio-Economic Inequality &
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#### New Evidence on the Relationship between Inequality and Health

Jaesang Sung, Qihua Qiu, James Marton Session 1.1 Room 9207

The relative income hypothesis suggests that an individuals health is impacted by the income of others. However, prior studies suffer from mixed empirical findings that could be due to a lack of annual individual income data with sufficient sample size. In this paper we apply a new methodology to calculate a variety of income inequality measures based on aggregate income and household size data from various Federal data sources. Our proposed methodology provides a way to express various income inequality measures as a function of the ratio of mean to median household income under the assumption that individual income is log-Normally distributed. This approach produces a variety of precise annual income inequality measures at different levels of geography, thus solving the sample size problem. Combining the 2001-2012 editions of Behavioral Risk Factor Surveillance System with annual regional income inequality measures derived from our methodology enables us to estimate the lagged effect of income inequality on individual health outcomes. In general, we find statistically significant evidence supporting the income inequality hypothesis and the relative deprivation hypothesis, which suggests that greater income inequality adversely affects health status in the United States.

Link to the PDF file

#### Ranking Countries in Terms of Health Inequality of Opportunity in Europe

Paolo Brunori, Caterina Francesca Guidi Session 1.1 Room 9207

We endorse a responsibility-sensitive egalitarian approach to measure unfair inequalities in health in Europe. This approach considers three possible sources of inequality in health: unavoidable biological characteristics, avoidable circumstances beyond individual control, and choices for which individuals should be held responsible. Inequality of opportunity is then defined as avoidable inequality due to circumstances beyond individual control. In this framework, many possible measures of inequality of opportunity have been proposed. We select two popular measures in the literature on inequality of opportunity in income. The two measures are used to estimate of inequality of opportunity in health conditions a large set of European countries. Because these measures of inequality of opportunity have been shown to be sensitive to the econometric specification used, in order to rank countries, we adopt a generalization of the latent class method proposed by Li Donni et al. (2015).

JEL: 114, D63

Link to the PDF file

#### Decomposing health inequality in the EU

Mazeikaite Gintare, O'Donoghue Cathal, Denisa Sologon Session 1.1 Room 9207

Despite high living standards and a nearly universal healthcare provision, large cross-country differences in population health exist in the European Union. More than half of this variation remains unexplained after accounting for macro-level factors. In our paper, we aim to understand how individual-level differences in demographic characteristics, education, labour market factors and income shape the prevalence of poor self-assessed health in the EU. For this purpose, we use a semi-parametric decomposition approach, which relies on constructing synthetic distributions of health that would prevail in each country if they had the distribution of the analysed factors as in the country with the best self-assessed population health - Ireland. We find regional variation in the decomposition results. The analysed factors explain up to a third of the health inequality in the EU for Southern and Central and Eastern European (CEE) countries, but they fail to explain the health differences for the Western

European countries. We suggest that cross-country variation in the reporting of self-assessed health may be partially responsible for this result. Finally, we find that the detailed decomposition results for some of the explanatory factors are sensitive to the decomposition sequence, which shows that interaction effects merit further investigation.

JEL classification: I14, J00, N34

Link to the PDF file

#### Composite Indices, Alternative Weights, and Comparison Robustness

Suman Seth, Mark McGillivray Session 1.2 Room C204

Composite indices are widely used and can be highly influential. Yet most remain controversial owing to inter alia the arbitrary selection of component weights. Several studies have proposed testing the robustness of rankings generated by composite indices with respect to alternative weights but have not provided sufficient guidance on the choice of these alternatives. This paper proposes a holistic yet theoretically novel approach for selecting sets of alternatives weights and assessing comparison robustness that is applicable to linear composite indices with any finite number of dimensions. This approach is applied to robustness testing of inter-temporal country improvements generated by arguably the worlds most influential composite development index, the UNDP Human Development Index (HDI). More than two-thirds of HDI country improvements between 1980 and 2013 were found to be not robust to the selected set of alternative weights.

JEL codes: D63, C6, I31, O10

Link to the PDF file

#### Comparing Approaches to the Measurement of Multidimensional Child Poverty

Lisa Hjelm, Lucia Ferrone, Sudhanshu Handa, Yekaterina Chzhen *Session 1.2 Room C204* 

SDG target 1.2 implies that both monetary and non-monetary or multidimensional (MD) child poverty would be measured and monitored, and that the associated indicators would be defined nationally. However, very few countries routinely measure child MD poverty. This paper seeks to provide some guidance on the topic by presenting and comparing two approaches which are now some of the most widely used. The first approach is the Multiple Overlapping Deprivation Analysis (MODA) which was developed by UNICEF: MODA is a child specific MD poverty measure rooted in the rights-based framework of the Convention on the Rights of the Child (CRC). The second measure we present and compare is the Multidimensional Poverty Index (MPI) developed by the Oxford Poverty and Human Development Initiative which has computed the MPI for over 100 countries using a universal global standard. We compare the global version of the measures, applying them to four countries: Cambodia, Ghana, Mali, and Mongolia. The two approaches, while sharing many similarities, do not lead to the same results. In deciding on their individual strategy to measure and track SDG Target 1.2, countries will need to reflect on both the underlying purpose of the target, and to weight the inevitable trade-offs between the two approaches.

JEL: I32; J13

Link to the PDF file

# Can subjective data improve inequality measurement? A multidimensional index of economic inequality

Philipp Poppitz
Session 1.2 Room C204

To measure multidimensional inequality by a univariate index, dimensions of inequality need to be weighted. This work addresses the normative and empirical problems by estimating hedonic weights based on German microdata. In contrast to previous works that relied on life satisfaction, individuals perception of inequality is used to estimate a weighting scheme including five dimensions. The hedonic weights estimations reveal that income is the most important dimension, while education, occupational

prestige, working status, and parents socio-economic status are respectively less important. Based on a multidimensional generalized Gini and the estimated weights, annual multidimensional economic inequality (MDEI) is calculated on an annual frequency from 2000 to 2016. On average, the MDEI is significantly higher in the analyzed period compared to the case of equal weights, but lower than income inequality. Until 2006 multidimensional inequality in Germany increased at the same pace as income inequality. Since then, the decreasing trend of MDEI is amplified when assuming greater complementarity between dimensions. The decomposition analysis reveals that income contributes more than any other dimension to inequality, but the exceptional reduction in unemployment is the major cause for the decline of the MDEI from 2008 onwards.

JEL: C43, D31, I30

Link to the PDF file

#### Globalization and income inequality revisited

Florian Dorn, Clemens Fuest, Niklas Potrafke Session 1.3 Room C415A

We re-examine the globalization-income inequality nexus. Globalization is measured by the KOF globalization index and sub-indicators for trade, financial, political and social global integration. Income inequality is measured by Solts pre tax/transfer and the post tax/transfer Gini indices. We use data for 140 countries over the period 1970-2014 and deal with the endogeneity of globalization measures. Our instrumental variable is predicted openness based on a time-varying gravity model. OLS results show that globalization and income inequality are positively correlated within the full sample of countries and the sample of emerging and developing countries. The positive relationship is mainly driven by Export openness, FDIs and social globalization. The 2SLS results do not show that overall globalization or any sub-indicator influences income inequality. The effect, however, is positive within the sample of higher developed countries and driven by transition countries from Eastern Europe and China. Within the sample of the most advanced economies, neither OLS nor 2SLS results show any significant positive relationship between globalization and inequality.

JEL-Code: D31, D63, F60

Link to the PDF file

#### **Explaining Income Inequality Trends in Countries: An Integrated Approach**

Petra Sauer, Narasimha D. Rao, Shonali Pachauri Session 1.3 Room C415A

What can we say about systematic trends in the drivers of income inequality within countries? With a focus on robustness, this study quantitatively assesses the integrated effects of a comprehensive set of drivers that are known in theory to influence income inequality. We construct a unique global dataset that includes two income inequality measures with unprecedented data integrity checks to reduce the influence of measurement errors. We assess determinants such as technological progress, education attainment at different levels, non-resource trade, political influence and governance, and the labor income share, and regional variations between high-income and developing economies. Our findings indicate the most robust global drivers of increasing inequality to be technological progress which interacts with public education spending, trade with high-income countries and declining labor-income shares. Trade with low-income countries, public spending on health and increasing education levels have significant equalizing effects on income distribution. The effects of trade, the education distribution and the relative relevance of labor income are, however, highly region specific and indicate the importance of disentangling global effects.

JEL codes: F62, I24, I28

Link to the PDF file

#### The distributive impact of terms of trade shocks

Maurizio Bussolo, Patrizia Luongo Session 1.3 Room C415A

The halving of oil prices, which happened in a short period of time between late 2014 and first months of 2015, has generated major terms of trade losses for oil exporting countries. Even if the oil producing sector normally employs a small group of workers and oil export revenues tend to be concentrated in a few firms and in the government accounts, these relative price changes affect the whole economy and can have significant distributive impacts. This paper describes the channels of transmission from the drop of oil prices to changes of welfare distribution at the household level. Using a macro-micro simulation model it assesses how this shock affects poverty, inequality and shared prosperity for the case of the Russian Federation. The oil price reduction generates a reverse Dutch disease that through spending and resource movement effects impacts sectoral employment, factor returns and consumption prices. When these shifts are mapped to changes in incomes at the micro level, we find that all households will be affected. Our empirical results show that poverty rates could increase by 1 to 4 percentage points, depending on the poverty line used. This means that, for example, 4.1 million additional people will fall below the 10 USD a day threshold because of the shock. Along the consumption distribution richer people are affected more than those in the bottom 40% and this minor progressive impact reduces slightly the level of inequality.

JEL code: C68; I32; D63

Link to the PDF file

#### Intergenerational aspirations, capital dilution, and the dynamics of inequality

Bassel Tarbush, Francis Dennig Session 1.4 Room C203

We propose a dynamic stochastic model of the intergenerational transmission of capital that accounts for systematic fertility differences across parents. The evolution of the distribution of capital over time is a function of a parent-to-child capital transmission technology that captures the dilution of capital across siblings and importantly, of a fertility curve. We show that for a broad class of functional forms for the transmission technology and for the fertility curve the process converges globally onto a unique steady state distribution of capital. We give an explicit analytic characterisation of this distribution and show that it nests the Pareto and log-normal families, among others. The fertility curve can be rationalised as the outcome of a decision problem in which parents have reference-dependent aspirational preferences over the outcomes of their children. Our results provide us with insights into the effects of fertility differentials on the long run distribution of economic resources, and also allows us to assess the effects of policies aimed at affecting inequality by distinguishing between those that have a transient effect with those that have a permanent effect on the distribution of resources. We illustrate the effects and policy options through several examples.

JEL codes: D31, E24, J10

Link to the PDF file

# Dynamic Interactions in Human Capital Development - Parents, Places and the Persistence of Inequality

Julia Schwenkenberg Session 1.4 Room C203

It has been shown that Intergenerational mobility prospects differ across locations in the United States (Chetty et al. 2014, 2015, 2016). This paper builds on Cunha et al. (2010), who estimate the technology of cognitive and non-cognitive skill formation during childhood, to analyze the contributions of parents and society to children's human capital formation and intergenerational mobility. The dynamic human capital investment model constructed in this paper provides a framework for public investments to affect mobility through early and late childhood experiences. I add to previous work by incorporating public investments and by expanding the model into adolescence. While the importance of early life investments into children has been stressed in the literature, evidence from neuroscience also supports a second phase of brain plasticity during adolescence. Complementarities in human capital production imply that a locality that contributes positively to children's human capital generates efficiency gains for parental investments. This might lead to poverty traps because low-income parents lack the resources to counter a negative environment.

JEL codes: J24 J62 I2

Link to the PDF file

#### The Impact of Non Classical Measurement Error on Inequality and Mobility. Evidence from Italy

Irene Brunetti, Davide Fiaschi

Session 1.4 Room C203

Self-reported earnings are generally affected by measurement errors. Measures of inequality and mobility based on this type of data can be biased because of the presence of these errors. Classical measurement error increases measures of inequality and mobility but there is substantial evidence that measurement error in earnings is not classical, that is, it is mean reverting. In this paper, following the framework of Gottschalk and Huynh (2006), first we establish if our dataset shows measurement error thate an bias the estimate of inequality and mobility. Second, we examine the type of measurement error. We find that the Italian data show non classical measurement error and its effect is large especially for measures of inequality while it is offsetting when we estimate mobility.

JEL Classification Numbers: C01; C83; J62

Link to the PDF file

#### The Paradox of the Joneses: Superstar Houses and Mortgage Frenzy in Suburban America

Clement Bellet

Session 1.5 Room C198

Despite a major upscaling of suburban houses over the last decades, house satisfaction has remained steady in the United States. I show that upward comparison in size can explain this paradox, as top housing size mirrored the U-shaped pattern of top income inequality. Com- bining data from the American Housing Survey from 1984 to 2009 with an original dataset of three millions suburban houses built between 1920 and 2009, I find that suburban owners who experienced a relative downscaling of their home due to the building of bigger units in their suburb record lower satisfaction and house values. These homeowners are more likely to upscale and subscribe to new loans. Results are robust to household fixed effects and concentrated in counties with lower segregation, suggesting a causal link between inequality and mortgage debt. In the absence of keeping up with the Joneses, I estimate the mortgage debt to income ratio would have been 25 percentage points lower at the eve of the 2008 financial crisis.

JEL codes: D01, D03, I30

Link to the PDF file

#### **Network Defect: Wealth Inequality, Network Topology and Financial Crisis**

Thomas Hauner Session 1.5 Room C198

This paper asks if two, otherwise identical, economies were distinguished only by their distributions of wealth, are they equally stable in response to a random shock? A theoretical financial network model is proposed to understand the relationship between wealth inequality and financial crises. In a financial network, financial assets link individual asset and liability holders to form a web of economic connections. The total connectivity of an individual is described by their degree, and the overall distribution of connections in the network is imposed through a degree distribution—equivalent to the wealth distribution as incoming connections represent assets and outgoing connections liabilities. A network's topology varies with the level of wealth inequality and total wealth and together, simulations show, they determine network contagion in the event of a random negative income shock to some individual. Random network simulations, whereby each financial connection is randomly placed, reveal that increasing wealth inequality makes a wealthy network less stable—as measured by the share of individuals failing financially or the decline in financial asset values. These results suggest a unique architectural role for accumulated assets and their distribution in macro-financial stability.

JEL codes: D31, G01, L14

Link to the PDF file

#### Income inequality and redistribution in the aftermath of the 2007-2008 crisis: the US case

Vanda Almeida Session 1.5 Room C198

This paper provides a detailed empirical assessment of the evolution of income inequality and the redistributive effects of the tax and transfer system following the 2007-2008 crisis. It focuses on the US case, drawing on data from the Current Population Survey for the period 2007-2012. Contrary to most existing studies, it uses a wide range of inequality indicators and looks in detail at several sections of the income distribution, allowing for a clearer picture of the heterogeneous consequences of the crisis. Furthermore, it analyses the contribution of different components of the tax and transfer system, beyond its overall cushioning action, which allows for a more refined assessment of its effectiveness. Results show that although the crisis implied income losses across the whole income distribution, the burden was disproportionately born by low to middle income groups. Income losses experienced by richer households were relatively modest and transitory, while those experienced by poorer households were not only strong but also highly persistent. The redistributive system had a crucial role in taming the increase in income inequality in the immediate aftermath of the crisis, and during the GR years, particularly cash transfers. After 2010, however,

JEL codes: D31, E32, H24,

income distribution in a crisis aftermath.

Link to the PDF file

its effect became weaker and income inequality experienced a new surge. The findings of this paper contribute to a better understanding of the distributional consequences of aggregate crises and the role of tax and transfer policies in stabilising the

#### The Vulnerability of Households to Poverty in Peru, 2004-2014

Javier Herrera, Angelo Cozzubo Session 1.6 Room 9204

In the last decade the Peru has gone through a period of rapid economic growth, accompanied by a dramatic reduction of the poverty by 37 percentage points. However, the observed economic slowdown in the past four years have led to wonder if that growth has allowed to consolidate a middle class finally freed from the risk of falling back into poverty or if, on the contrary, those households who left poverty would return to it in an even less favorable macroeconomic context.

Our study aims to fill a gap in the empirical literature concerning the households vulnerability to poverty in Peru using a dynamic approach. The concept of vulnerability is defined as the risk or ex ante probability for a household to move from a situation of not poor in the initial period to poor in the next period. Following the methodological proposal of Dang & Lanjouw (2014), we estimate a vulnerability index, analyze its determinants and build vulnerability lines which, in complement with the poverty lines, allow us to break down the population into three groups and analyze its evolution in time: poor, vulnerable and non-vulnerable households. The ENAHO household panel data was used considering jointly all 9 biannual panels over the 2004-2014 period, which allowed us to rely on more than 50,000 observations on poverty transitions.

Our results are robust to various specifications and cut points, and show that, the vulnerable population have been increasing in this period of rapid growth and poverty reduction reaching levels greater than 30% of total households in 2014. Contrarily to other studies which stress the role of adverse shocks, we find that the households vulnerability is mainly due to structural factors, linked to households labor characteristics but also to specific exogenous shocks, as well as the macroeconomic growth fluctuations. Individual dissaving strategies and having health insurance contribute to reduce vulnerability to poverty.

JEL classification: I32, D31

Link to the PDF file

#### Economic insecurity in Spain: a multidimensional analysis

Marina Romaguera de la Cruz Session 1.6 Room 9204

In this paper, we propose the use of a multidimensional approach to the measurement of economic insecurity in Spain. Using the longitudinal EU-SILC dataset from 2008 to 2015, we calculate six different unidimensional indicators proxying the subjective and objective determinants of economic insecurity. We combine these six indicators into a single Economic Insecurity Index for which

we undertake a variety of robustness checks regarding the aggregation of the different dimensions (equal weighting, PCA and counting approach). Results show that the probability of being economically insecure is higher for young individuals, temporary employees and unemployed, while high education reduces this probability. Insecurity decreases as household disposable income grows and the evolution of this index in the last seven years suggests a strong correlation with the economic cycle.

JEL codes: D630, I310

Link to the PDF file

#### Poverty Transitions Without Panel Data? An Appraisal of Synthetic Panel Methods

David Garces Urzainqui Session 1.6 Room 9204

The scarcity of nationally representative panel data has historically held back the study of welfare dynamics in developing countries. Recently, synthetic panel methods have been advanced that claim to provide point estimates of mobility requiring only two rounds of a cross-section survey. This paper presents the first independent comparative validation of the different synthetic panel methods in Dang and Lanjouw (2013) and Bourguignon and Moreno (2015). With data from Thailand for years 2006 and 2007, the performance of both approaches in the measurement of transitions in and out of poverty is evaluated against the benchmark of actual panel data. In doing so, it is shown that such validation studies must abstain from including households in more than one of the "as if cross-section" waves, as this practice leads to very misleading conclusions. The clear result is that only methods using cohort means, as opposed to cohort variances, can reliably estimate the autocorrelation of income residuals ρ. However, Monte-Carlo simulations show that this requires quite strong assumptions on the comparability of income residual persistence at the cohort and the individual level. Given a good estimate of this parameter, parsimonious models and a flexible calibration and simulation procedure to deal with residuals contribute to improve the quality of the estimates, which are then very close to those measured in the panel subsample. Dealing with the concerns surrounding the estimation of ρ arises thus as the main challenge for the credibility of potential applications of synthetic panel methods to the measurement of short-term income mobility in absence of panel data.

JEL codes: I32 - Measurement and Analysis of Poverty

Link to the PDF file

# Informal Transfers, Equity and Inequality: Exploring the Role of Inter-Household Transfers in Comparisons of Monetary Welfare and Its Distribution

Yixia Cai, Martin Evans Session 1.7 Room 9205

The Luxembourg Income Study (LIS) data is expanding to cover middle income countries that supplement the large, existing sample of countries which are high income in the LIS Database. Developing countries tend to have social protection systems that are less formalized, and financial transfers often flow between households. Inter-household financial transfers may play a significant role on a households economic resources. These differences in transfers mean that comparisons of countries poverty profiles and inequality levels can be heavily influenced by how such payments are taken into account. This research looks at the level of payments of transfers in both formal and informal ways and how the transfers affect the international and sub-national comparison of inequality in China, Peru, Dominican Republic, Germany, United Kingdom and United States. Based on the data from the LIS Database, this paper addresses how important inter-household transfers are to the households overall income, the differences discounting such transfers makes to the comparison of monetary welfare across countries and to the national distributions and how the comparisons of the welfare of specific sub-groups are affected by discounting such transfers.

JEL codes: (I30, I31, I32)

Link to the PDF file

#### Household Inequality and Remittances in Rural Thailand: A Lifecycle Perspective

Rashaad Shabab, Richard Disney, Andy McKay

Session 1.7 Room 9205

This paper studies the dynamics of income inequality among a panel of rural households in Thailand. It finds that income inequality is decreasing over time not only in the balanced panel, but also within birth cohorts of heads of household. The decline in inequality within birth cohorts of the heads of household is wholly explained by differences in the receipt of remittances from the adult children of the head of household who live outside the village origin. On average, poorer heads of households receive remittances from a larger number of children, the annual amount remitted by each child is a greater proportion of household income than in richer households, and the importance of remittances in household incomes grows as the head of household ages.

JEL codes: D10 D31 D05

Link to the PDF file

#### **Income Hiding and Informal Redistribution**

Marie Boltz, Karine Marazyan, Paola Villar Session 1.7 Room 9205

This paper estimates the hidden cost of informal redistribution in urban Senegal. It is based on a lab-in-the-field experiment combined with a small-scale randomized controlled trial. We show that two-thirds of the experiment participants are ready to forgo up to 14% of their lab gains to keep them private. When they are given the opportunity to hide, they decrease by 27% the share of gains they transfer to kin and increase health and personal expenses. This is the first paper to identify the individual cost of informal redistribution and to relate it to real-life resource-allocation decisions in a controlled setting.

JEL Classification: D13, D14, D31, C91, C93, O12

Link to the PDF file

#### Private wealth Across European Countries: The Role of Income, Inheritance and the Welfare State.

Pirmin Fessler, Martin Schuerz Session 1.8 Room 9206

Using microdata from the Household Finance and Consumption Survey (HFCS), this study examines the role of inheritance, income and welfare state policies in explaining differences in household net wealth within and between euro area countries. First, about one third of the households in the 13 European countries we study report having received an inheritance, and these households have considerably higher net wealth than those which did not inherit. Second, regression analyses on households' relative wealth position show that, on average, having received an inheritance lifts a household by about 14 net wealth percentiles. At the same time, each additional percentile in the income distribution is associated with about 0.4 net wealth percentiles. These results are consistent across countries. Third, multilevel cross-country regressions show that the degree of welfare state spending across countries is negatively correlated with household net wealth. These findings suggest that social services provided by the state are substitutes for private wealth accumulation and partly explain observed differences in levels of household net wealth across European countries. In particular, the effect of substitution relative to net wealth decreases with growing wealth levels. This implies that an increase in welfare state spending goes along with an increase - rather than a decrease - of observed wealth inequality.

JEL codes: D30, D31

Link to the PDF file

#### Redistribution in a joint income-wealth perspective: a cross-country comparison

Sarah Kuypers, Francesco Figari, Gerlinde Verbist Session 1.8 Room 9206

When determining living standards it is increasingly argued that we should give more prominence to the joint distribution of income and wealth. Moreover, given increased levels of inequality in most Western countries over the past decades, many

researchers and policymakers have made strong arguments for broadening the taxes on wealth and its returns. However, research on both aspects is scarce due to a lack of appropriate data and methods. By including the Eurosystem Household Finance and Consumption Survey (HFCS) into the tax-benefit microsimulation model EUROMOD we add two novel aspects to the literature on the redistributive effects of tax-benefit systems. First, we evaluate the redistributive effects of direct income taxes and benefits against the joint distribution of income and wealth instead of income only. Second, we include the analysis of recurrent wealth taxes (i.e. real property and net wealth taxes) and event-based wealth taxes (i.e. inheritance and gift taxes). We analyse this in a cross-country comparison of Belgium, Finland, France, Germany, Italy and Spain. We show that the more comprehensive joint income-wealth framework of living standards results in considerable reranking of individuals, which in turn leads to a lower redistributive impact than is traditionally considered based on income alone.

JEL Classification: C15, H24, I3

Link to the PDF file

#### Intergenerational transfers: How do they shape the German wealth distribution?

Marten von Werder Session 1.8 Room 9206

This paper uses SOEP data to study the distributional effect of intergenerational transfers on the wealth distribution of German households. Similar to most other central European countries, Germany faces a period of increasing aggregate bequest flows. At the same time, there is an ongoing debate on the distributional implications of such wealth shocks. This study retrievs the causal effect of an annual inheritance flow on the inequality in the households' net wealth distribution by estimating the counterfactual distribution of wealth that would have prevailed if heirs would be non-heirs: By using a combination of an *inverse probability weighting* approach and regression techniques, the study evens out wealth differences between heirs and non-heirs that are attributable to age, household structure, parental background and the monetary transfers themselves. The results mostly confirm previous findings from the literature: Intergenerational transfers tend to reduce relative and tend to increase absolute wealth inequality. In contrast to previous works, this study however identifies the heterogeneity in the propensity to save from intergenerational transfers as the major driver in the equalizing effect of transfers on wealth. Whether transfers are expected or not plays however no role for inequality considertions.

JEL codes: D63, E21

Link to the PDF file

### Welfare and Inequality Comparisons for Uni- and Multi-dimensional Distributions of Ordinal Data

Frank Cowell, Kobus Martyna, Kurek Radosław Session 2.1 Room 9207

Decision makers and social planners are often faced with a problem of evaluating distributions of ordinal variables i.e. variables for which there are no numbers but only the ordering, such as, for example, self-reported health status, life satisfaction, working environment, quality of public goods, living conditions etc. Standard tools, namely, stochastic dominance, and inequality and risk measures, produce conclusions that can be reversed depending on the cardinalisation of an ordinal indicator which is arbitrary. Utilising the notion of integration on partially ordered sets we extend the well-known Hardy-Littlewood-Polya result to an ordinal setting, both univariate and multivariate. Multivariate versions of this fundamental result are difficult to obtain. We characterise bivariate second order dominance in terms of easy to interpret association sensitivity principle, which extends the theory of stochastic dominance beyond ordinal setting.

Link to the PDF file

#### Hammond's equity principle and the measurement of ordinal inequalities

Nicolas Gravel, Brice Magdalou, Patrick Moyes Session 2.1 Room 9207

What would be the analogue of the Lorenz quasi-ordering when the variable of interest is of a purely ordinal nature? We argue that it is possible to derive such a criterion by substituting for the Pigou-Dalton transfer used in the standard inequality literature what we refer to as a Hammond progressive transfer. According to this criterion, one distribution of utilities is considered to be less unequal than another if it is judged better by both the lexicographic extensions of the maximin and the minimax, henceforth referred to as the leximin and the antileximax, respectively. If one imposes in addition that an increase in someones utility makes the society better off, then one is left with the leximin, while the requirement that society welfare increases as the result of a decrease of one persons utility gives the antileximax criterion. Incidently, the paper provides an alternative and simple characterisation of the leximin principle widely used in the social choice and welfare literature.

JEL codes: D30, D63, I32

Link to the PDF file

#### Extending the approaches to inequality ordering of ordinal variables

Sandip Sarkar, Sattwik Santra Session 2.1 Room 9207

In the context of distributions of ordinal variables and their inequality orderings, this paper provides three interesting contributions. Firstly it explores the association between certain types of transfers of population mass to the dominance rankings of distributions. Secondly it relates the inequality orderings of certain family of inequality indices to the dominance relationships of underlying distributions. Finally, the paper characterizes the class of inequality indices which allows comparison between ordinal distributions having different median categories and examines whether some established inequality indices satisfy the required properties. The same is illustrated using data on male and female educational attainments in India. JEL Classification: D30; D63; I30.

Link to the PDF file

### Stratified higher education and intergenerational mobility : The case of the French Grandes écoles Joel Hellier

Session 2.2 Room C204

We show that the system of Grandes écoles (GEs) is a key determinant of social stratification, low intergenerational mobility at the top and low educational efficiency in France. A stylised model of the French higher education system is constructed. This system is composed of two types of establishment, the GEs and the universities, which differ (i) in the strictness and shape of their admission, and (ii) in their per-student expenditures. The GE system is compared with a unified system in which there is one type of establishment only with two successive levels and two admission procedures. The GE system favours family background and the unified system personal aptitudes, which lessens intergenerational mobility. Rising expenditure on the highest education level favours skill upgrading of the population in the unified system whereas it insulate a narrow elite in the GE system. Finally, with similar education expenditures, the unified system results in higher human capital accumulation than the GE system in both the upper skill group and the whole population. Consequently, the GE system hurts both social mobility at the top and human capital accumulation. The US and the UK display tertiary education systems which are close to the GE system in terms of selective admission and results. Our approach provides theoretical bases for the analysis of selective versus comprehensive education systems (Turner, 1960) and a demonstration that highly stratified and selective systems reinforce family backgrounds and reduce mobility (Kirckhoff, 1995).

JEL codes: I21; J24; J62

Link to the PDF file

# French Grandes Écoles and Social Reproduction throughout the 20th Century: the Insight of Surnames

Stéphane Benveniste, Alain Trannoy Session 2.2 Room C204

This paper studies multigenerational social mobility in the French Grandes Écoles (higher education elite schools) using surnames to track lineages. We construct a new dataset of graduate students from 8 elite schools over the period 1885-2015. Using log-binomial generalized linear models, we investigate the probability to enroll at these elite schools for several groups of surnames across generations. Throughout the 20th Century, noble families, Parisians, as well as descendants of Grandes Écoles graduates or political representatives all experienced a significantly better access to the Grandes Écoles. Rather than low social mobility overall, this provides evidence that the French elite succeeds at securing the education outcomes of its offspring. A great-grandchild of a student of a Grande École from the end of the 19th century is still about 1.70 times more likely to be admitted in a Grande École nowadays. Besides, our study provides insights in accordance with several papers in the literature that social achievement is dependent on surname frequency.

JEL Classification: J62, I23, N34

Link to the PDF file

#### Alphabetism: The effects of surname initial and the risk of being otherwise undistinguished

Alexander Cauley, Jeffrey Zax Session 2.2 Room C204

A small literature demonstrates that names and initials are correlated with important economic outcomes for firms and individuals. This paper presents the first comprehensive examination of the relationship between alphabetic rank of surname initial and life outcomes. Those outcomes include male investments in human capital and labor market experiences through middle age. These outcomes were, as expected, consistently better for individuals who performed better in high school, had higher IQ scores, whose high school friends were more ambitious and who received greater parental support. Perhaps surprisingly, they were unaffected by the presentational characteristics of appearance and body mass. However, surnames whose initials were farther from the beginning of the alphabet were significantly associated with less distinction and satisfaction in high school, lower final educational attainment, more military service and less attractive first civilian jobs. These effects were concentrated among those who were not distinguished by cognitive ability or appearance. The effects of surname initial appear to dissipate by age 35, presumably because other observable characteristics become sufficiently informative so as to supersede the correlates of surname initial. These results are consistent with other evidence demonstrating the relevance of ordering effects. They suggest that the common practice of relying on alphabetical listings is anything but innocuous.

JEL Codes: D63, I31, J12, J71

Link to the PDF file

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

Adrian Adermon, Kristin Gunnarsson

Session 2.3 Room C415A

We estimate sibling and cousin correlations in wealth using Swedish administrative data from 19992007. This allows us to shed light on the extent to which the immediate family as well as the extended family contribute to the total variation in wealth among individuals.

JEL codes: D31; D64

Link to the PDF file

#### Family, Community and Long-Term Earnings Inequality

Lorenzo Cappellari, Paul Bingley, Konstantinos Tatsiramos Session 2.3 Room C415A

This paper studies the influence of family, schools and neighborhoods on life-cycle earnings inequality. We develop an earnings dynamics model linking brothers, schoolmates and teenage parish neighbors using population register data for Denmark. We

exploit differences in the timing of family mobility and the partial overlap of schools and neighborhoods to separately identify sorting from community and family effects. We find that family is far more important than community in influencing earnings inequality over the life cycle. Neighborhoods and schools influence earnings only early in the working life and this influence falls rapidly and becomes negligible after age 30.

JEL codes: D31, J62

Link to the PDF file

### Intergenerational earnings mobility in Germany: Changes over time and the role of parental background

Iryna Kyzyma, Olaf Groh-Samberg Session 2.3 Room C415A

Germany has experienced a profound increase in income inequality since reunification. The classical measure of income inequality the Gini coefficient increased from 0.248 points in 1991 to 0.291 points in 2012. This paper aims to investigate what has happened to intergenerational earnings mobility in the context of increasing income inequality in Germany. In particular, we identify how the intergenerational earnings elasticities have evolved over time and whether the trend differs at different points of fathers earnings distribution. We also explore the differences in the earnings correlations between fathers and sons, on the one hand, and fathers and daughters, on the other. The findings indicate that the increase in income inequality in Germany was accompanied by a decline in intergenerational earnings mobility, especially in the upper part of the fathers earnings distribution. The decline was also more profound for daughters than for sons.

JEL codes: J62, H24

Link to the PDF file

#### Material deprivation in Europe: A new appraisal based on dynamic latent class models

Francesco Dotto, Alessio Farcomeni, Maria Grazia Pittau, Roberto Zelli Session 2.4 Room C203

We use the longitudinal component of the EU-Statistics survey on income and living conditions, EU-Silc, for evaluating material deprivation over the period 2010–2013 in Greece, Italy, and UK. Material deprivation is analyzed within a dynamic latent state framework, where at each occasion a transition from one status to the other is allowed. Assuming two unobservable classes in the society, corresponding to the status of deprivation and no deprivation, our methodology classifies individuals in deprived (not deprived) by estimating their posterior probability of belonging (not belonging) to the latent status of deprivation. These probabilities depend on the presence/absence of each attribute in a given list, each representing a different aspect of deprivation. By estimating an optimal weighting scheme, associated to the list of items, we derive an optimal deprivation score. Our score is arguably better at predicting the deprivation status than simple item counting (equal weighting). Under an hypothesis of local independence we identify patterns of transitions in and out deprivation, and estimate the probability of being chronically deprived.

JEL Codes: C14; I32; O1

Link to the PDF file

### Latent-Social Classes: Disappearance of the Egyptian's Upper Middle Class and the Political Transition

Christophe Muller, Abdoul Aziz Junior Ndoye Session 2.4 Room C203

We estimate a concomitant-variable latent classification of Egyptian social classes based on finite mixture regression models. The data is taken from the recent waves of the Egypt Household Income, Expenditure and Consumption Survey (HIECS) from 1999 to 2012. From these estimates, we can analyse the implications of the size of the middle class in the recent political transition in

Egypt. The estimations elicit a vanishing of the "upper middle class" on the eve of the Egyptian's revolution leading to a drastic increase in the poverty rate. The results also show that higher education for the upper middle classes does not significantly affect the household equivalised disposal income, while the observed differences in welfare across classes over the studied years are mainly explained by education returns. These findings provide an empirical evidence that the middle class was the class most affected by Egypt economic crisis at the beginning of the twenty-first century, and may explain why it was leader in the Egyptian Revolution.

JEL codes: C14, I32, O41, Z13, O2

Link to the PDF file

#### **Multidimensional Middle Class**

Maria Edo, Walter Sosa Escudero, Marcela Svarc *Session 2.4 Room C203* 

Middle class studies have gained relevance in the economic litera- ture. Nevertheless, a profound lack of agreement on conceptual and methodological issues for its identification remains. Furthermore, it has mostly relied on only one dimension: income. In this paper we present a new multidimensional approach for identifying the middle class based on multivariate quantiles. We provide an empirical application for the case of Argentina in the 2004-2014 period, characterizing its performance and main features.

JEL Codes: D3, I3, D6.

Link to the PDF file

#### The Returns to Preschool Attendance

Pirmin Fessler, Alyssa Schneebaum Session 2.5 Room C198

Preschool attendance is widely recognized as a key ingredient for later socioeconomic success, mothers labor market participation, and leveling the playing field for children from disadvantaged backgrounds. However, the empirical evidence for these claims is still relatively scarce, particularly in Europe. Using data from the 2011 Austrian European Union Statistics of Income and Living Conditions (EU-SILC), we contribute to this literature in all mentioned dimensions. In particular, we investigate the effect of preschool attendance on an individuals later educational attainment, the probability that they work full time and their hourly wages, the likelihood of the mother working when the child is 14 years old, and on the overall distribution of wages. We find strong and positive effects of preschool attendance on educational attainment, the probability of working full time, hourly wages, and the probability that the mother is in the labor market. Full time workers at the bottom and the top of the distribution tend to benefit less than those in the middle. Women in particular benefit more in terms of years of schooling and the probability of working full time. Other disadvantaged groups (second generation migrants; People with less educated parents) also often benefit more in terms of education and work.

JEL codes: I26, J62, H52

Link to the PDF file

#### Effects of high versus low quality preschool: A longitudinal study in Mauritius

Christian Morabito, Dirk Van de gaer, Jose Luis Figueroa, Michel Vandenbroeck *Session 2.5 Room C198* 

We report on a unique randomized control experiment by the Mauritius Joint Child Health Project, a longitudinal study that followed a cohort of children from different socio-economic backgrounds, and test for possible divergent educational outcomes between children in high and low quality preschool. The findings show that the differential quality of education had no significant overall effects. However, the educational performances of children in the experimental group are found to be higher for those with poorly educated fathers, but lower for those with poorly educated mothers. Hence the effects of high quality preschool work in opposing directions: compensating the fathers education level (hence producing an equalizing effect), but reinforcing

the mothers education level (hence producing a dis-equalizing effect). JEL Codes:I2; D3; I3.

Link to the PDF file

#### Do public policies have any long-run effect on poverty reduction net of individuals' characteristics? **Evidence from some European countries**

Marisa Hidalgo-Hidalgo Session 2.5 Room C198

Living in poverty may have long-run negative effects. The interaction between families and public policies is crucial as it affects a child's opportunities. The aim of this paper is to check whether public policies implemented during individuals' childhood have a long-run effect in the probability of being poor in adulthood. We consider three measures of public policies: two specific public spending programs, in primary education and in family allowances, and a general institutional indicator, a welfare states' generosity index. We find that an increase in any of these measures accounts for a sizeable reduction in the incidence of poverty in adulthood, net of personal and family characteristics.

JEL Classification: I32,I38, H5.

Link to the PDF file

#### Poverty measurement (in India): Defining group-specific poverty lines or taking preferences into account?

Aditi Dimri, François Maniquet Session 2.6 Room 9204

We study absolute income poverty measurement when agents differ in preferences and face different prices. The difficulty arising from price heterogeneity is typically solved using equivalent income, but the choice of the reference price vector remains arbitrary. We provide a way to solve this arbitrariness problem by making the poverty measure consistent with preferences: an agent qualifies as poor if and only if she prefers the poverty line bundle to her current consumption bundle. We then prove that defining group/region specific poverty lines is another way of recovering consistency with preferences, provided one uses the headcount ratio. Comparing the resulting three approaches of poverty measurement using Indian data, we find that the approaches identify varying distributions of the poor across socio-demographic groups.

Link to the PDF file

#### A preference-sensitive index of multidimensional well-being and inequality

Lin Yang

Session 2.6 Room 9204

This paper introduces and illustrates the preference index approach, a framework for analysing preference-sensitive well-being and inequality. It draws together complementary aspects of attempts to operationalise a more inclusive definition of well-being, through subjective well-being measurement, social welfare theory, and multidimensional indices of well-being and inequality. This proposed preference index is axiomatically characterised and empirically illustrated with data from the British Household Panel Survey, using longitudinal life satisfaction regression to estimate preferences between dimensions of life. It is argued, according to the equivalence approach (Pazner & Schmeidler 1978, Fleurbaey & Maniquet 2011), that such preferences can be used to characterise a measure of multidimensional well-being that reflects interpersonal preference heterogeneities whilst being interpersonally comparable. The empirical illustration includes estimating preferences of individuals separated according to age group and education level, and an initially unexpected finding of weaker precedence of the health dimension within older groups compared to younger groups. Another key result is the strong prioritisation of good health across all preference types, compared to relatively weak preferences for income. It is shown that the picture of well-being in the UK is quite different if preference heterogeneity is taken into account, compared to the picture painted by solely income or subjective well-being, or by standard

multidimensional measures. The preference index proposal challenges the popular practice of assuming a readily available cardinal measure of well-being, identically specified across individuals. It also challenges the popular practice in composite index approaches of using population averages to seek an aggregate assessment over the population. In these respects, the framework proposed and empirical operationalisation of a composite index of preference-sensitive multidimensional well-being are new contributions.

JEL codes: D63 I31

Link to the PDF file

# Can't Keep Up With The Joneses: How Relative Deprivation Pushes Internal Migration in Austria Stefan Jestl, Mathias Moser, Anna K. Raggl

Session 2.6 Room 9204

We estimate the effect of regional income inequality on emigration rates of Austrian municipalities using a unique data set that is constructed based on individual level data from Austrian administrative registers. The register-based data contains information on the municipality of residence of all individuals aged 16 and over that have their main residency in Austria, as well as their income and socio-demographic characteristics. Aggregating this information to the municipality level allows us to assess the role of relative deprivation - a measure of relative income - on top of absolute income in shaping internal migration in Austria. We find that increases in relative deprivation in a municipality lead to higher emigration from the municipality. Allowing for heterogeneous effects across income, education, and age groups reveals that the effect is stronger among those with comparably low levels of income, and among low skilled and young individuals.

JEL codes: (D31, R23, D31)

Link to the PDF file

#### The Distributional Effects of the German Minimum Wage Reform

Marco Caliendo, Alexandra Fedorets, Malte Preuss, Carsten Schröder, Linda Wittbrodt Session 2.7 Room 9205

We compare the distributions of hourly wages and monthly earnings before and after Germany's recent minimum-wage reform. The descriptive evidence shows that lower wage segments experienced faster wage growth, that inequality at the bottom of the distribution declined, and that the fraction of employees paid at or below the minimum wage reduced substantially after the reform. It also shows that monthly earnings increased moderately at the bottom of the distribution. A difference-in-differences analysis exploiting the regional variation of the treatment intensity suggests that the reform had a significant positive effect on wages at the bottom of the region-specific wage distribution, but not on monthly earnings. Despite the increase in wages, about seven percent of eligible employees remain below the imposed statutory minimum wage level.

JEL codes: J08, J31, J38

Link to the PDF file

#### Global Value Chains and Wages: International Evidence from Linked Worker-Industry Data

Aleksandra Parteka, Joanna Wolszczak-Derlacz Session 2.7 Room 9205

Using a rich dataset on over 110,000 workers from nine European countries and the USA we study the wage inequality response to industry dependence on foreign value added. We estimate a Mincerian wage model augmented with an input-output interindustry linkages measure accounting for task heterogeneity across workers. Low and mediumeducated workers and those performing routine tasks experience (little) wage decline due to major dependency of their industries on foreign inputs. Workers from former EU15 are more in danger of unfavourable wage effects than workers from new EU member states. American workers employed in service industries are more exposed than manufacturing workers.

JEL: F14, F16, J31

Link to the PDF file

#### The Spillover Effects of Top Income Inequality

Jeffrey Clemens, Joshua Gottlieb, David Hémous, Morten Olsen Session 2.7 Room 9205

Since the 1980s top income inequality within occupations as diverse as bankers, managers, doctors, lawyers and scientists has increased considerably. Such a broad pattern has led the literature to search for a common explanation. In this paper, however, we argue that increases in income inequality originating within a few occupations can "spill over into others creating broader changes in income inequality. In particular, we study an assignment model where generalists with heterogeneous income buy the services of doctors with heterogeneous ability. In equilibrium the highest earning generalists match with the highest quality doctors and increases in income inequality among the generalists feed directly into the income inequality of doctors. We use data from the Decennial Census as well as the American Community Survey from 1980 to 2014 to test our theory. Specifically, we identify occupations for which our consumption-driven theory predicts spill-overs and occupations for which it does not and show that patterns align with the predictions of our model. In particular, using a Bartik-style instrument, we show that an increase in general income inequality causes higher income inequality for doctors, dentists and real estate agents; and in fact accounts for most of the increase of inequality in these occupations.

JEL: D31; J24; J31

Link to the PDF file

#### **World Interest Rates, Inequality and Economic Growth:**

Tamara Fioroni, Michele Battisti, Mario Lavezzi Session 2.8 Room 9206

Following Galor and Zeira (1993), we study the effect of a falling world interest rate on within- and between-country inequality for the period 1985- 2005, characterized by cross-country income polarisation. We show that the two facts are related as: 1) a reduction of the world interest rates increases inequality in rich countries and decreases inequality in poor countries; 2) inequality has a negative (and significant) effect on human capital in rich countries and a positive (but mostly not significant) effect in poor countries; 3) human capital positively affects GDP in all countries, with a higher marginal effect in poor countries.

JEL codes: O15, O16, O47

Link to the PDF file

# Income and wealth distributions in a neoclassical growth model with elasticity of substitution greater or equal to one

Mauro Patrão Session 2.8 Room 9206

The publication of Capital in the Twenty-First Century by Piketty helped to increase the debate about the prospects of the evolution of income and wealth inequality in this century. One of the main controversies is about the effects to the income and wealth inequalities of a decrease in the growth rate g. In (Piketty, 2014), it is claimed that a decrease in g will cause an increase in the wealth inequality, through an increase in the difference r - g, where r is the rate of return on capital. This claim was criticized by many authors. In this paper, we present a neoclassical growth model with heterogeneous agents and use it to shed more light on this issue. Our model generalizes and improves the model introduced in (Piketty e Zucman, 2015) and the model presented in (Aoki and Nirei, 2016). We also present a result relating income, wealth and wage inequalities.

JEL Numbers: E13, E21, E25

Link to the PDF file

#### How Would Monetary Policy Look Like if John Rawls Had Been Hired as a Chairman of the Fed?

Pierre Monnin, Marta Areosa, Waldyr Dutra Areosa Session 2.8 Room 9206

Using a textbook New Keynesian model extended with an inequality channel, we examine optimal monetary policy departing from the traditional utilitarian social welfare function, to consider alternative functions, including the Rawlsian approach of putting only weight to the agent with the lowest welfare level. Our main results show the optimal responses from a Rawlsian monetary authority are: (i) a less aggressive monetary tightening, but inducing a more pronounced drop in inflation after a monetary shock; (ii) a monetary policy easing after an increase in government spending and (iii) a more pronounced drop in the interest rate after a positive total factor productivity shock. JEL codes: E52, I31, E25

Link to the PDF file

#### Understanding the Differences in Welfare Distribution between India and Indonesia

Arip Muttaqien, Denisa Sologon, Cathal ODonoghue *Session 2.9 Room C202* 

The aim of this paper is to understand the main sources of the differences in welfare distribution inequality in two developing countries, between India and Indonesia during the decade of 2000s. We decomposed the difference in welfare distribution into three main factors: the difference in demographic characteristics (endowment effects), the difference in labour market characteristics (labour market effects), the difference in returns to expenditure (price effects), and interaction effect. We found that Indonesia excess 9.3 Gini points, mainly contributed by 6.1 points from the difference in demographic characteristics and 3.8 points from the difference in returns to expenditure, while interaction effect contributes to shrink the gap by 0.6 points. The difference in labour market has no significant effect.

JEL: D3, D63, O53

Link to the PDF file

# **Explaining the Changes in Earnings Level and Inequality in Indonesia: Market vis-a-vis Nonmarket Forces**

Virgi Sari Session 2.9 Room C202

The study seeks explanation on persistent wage inequality despite the presence of improvement in real wage, thus questioning the inclusiveness of economic growth in the context of lower-middle income country. We took the case of Indonesia, utilised a rich household survey, and applied a set of decomposition techniques. Our key findings suggest: rising minimum wage and declining returns to education are the key to reduction in overall wage inequality by levelling the playing field; Yet, the net effect is balanced out by the higher wage premium of manufacturing and service sector after the global financial crisis; Nevertheless, the rising occupational wage gap is yet to worsen wage inequality in Indonesia as it continues to experience premature deindustrialization and the manufacturing sector is still largely dominated by the "low-tech" products. This leads to policy implication that economic growth has been thus far non-inclusive and relying on minimum wage as a stand-alone tool to level the playing field is an overstatement. More importantly, it is not only about the number but the quality of human capital and whether it responds to the demand-side that will matter to improve workers earnings.

JEL codes: J24, J31, J38

Link to the PDF file

#### Benchmark inequality measures

Iñaki Permanyer

Session 3.1 Room 9207

In measuring the variability of a bounded variable such as health status, the use of traditional income inequality measures poses several problems. On the one hand, the bounded nature of the variable generates a strong relationship between its mean and the corresponding inequality levels (i.e. when the mean approaches either the lower or the upper bounds, inequality mechanically goes to zero). On the other hand, the lack of consistency between achievement and shortfall distributions precludes the use of classical measures of relative inequality. In this paper we propose new inequality indices that aim at capturing the intuitions of relative inequality but adapted to the context of bounded variables(the so-called benchmark inequality measures). The benchmark inequality indices proposed here simultaneously solve both problems: they consistently rank achievement and shortfall distributions and take into account the fact that when the mean of a bounded distribution approaches some of its bounds, the scope for potential variability is substantially reduced.

JEL Codes: D63, I31

Link to the PDF file

#### Inequality Measures and the Median: Why inequality increased more than we thought

Frank Cowell, Emmanuel Flachaire Session 3.1 Room 9207

Many standard inequality measures, as Gini and Theil indices, can be written as ratios, where the denominator is the mean. When one income moves away from equality, both the numerator and the denominator vary in the same direction and, thus, such indices may decrease. This undesirable property is not shared by median-based inequality measures developed in this paper, where the mean at the denominator is replaced by the median. However, median-based inequality measures do not respect the principle of transfer. We show that the mean logarithmic deviation, or second Theil, index is the only measure that satisfies the principle of transfer and avoids the previous undesirable property. An application shows that the increase of inequality in the United Sates over the last decades is largely underestimated with the Gini index and, that the mean logarithmic deviation index should be preferred in practice.

JEL codes: D63

Link to the PDF file

#### The Balance of Inequality: A rediscovery of the Ginis R concentration ratio and a new inequality decomposition by population subgroups based on a physical rationale

Giorgio Di Maio, Paolo Landoni Session 3.1 Room 9207

The Balance of Inequality (BOI) is a new approach to the measurement of inequality in which each individual is given a mass equal to his/her income, the population is aligned at regular intervals in order by income, and the center of mass of the income distribution is used to measure its inequality. The BOI index features an intuitive physical interpretation and a simple graphical representation that shows the income distribution and the inequality measure together. When applied to the entire population or a subgroup, the BOI index coincides with the Ginis R concentration ratio. The inequality decomposition by population subgroups is obtained for both the R concentration ratio and the Gini index defined from the Lorenz curve with a new approach that considers the distribution of the individual members of each subgroup in the population by introducing the center of mass of the subgroups in the population for cases of perfect equality and perfect inequality, the asymmetry effect and the irregularity effect.

JEL codes: D31, D63.

Link to the PDF file

#### Behind the Gender Wage Gap: The Role of Firms' Pay Policy Along the Wage Distribution

Alessandra Casarico, Salvatore Lattanzio

Session 3.2 Room C204

This study analyzes the role of firms in the determination of the gender wage gap. Using a matched employer-employee dataset for Italy, we show the existence of firm-specific premiums which are different across gender and which explain on average one third of the total gender wage gap over the period 1991-2012. In addition, we decompose differences in premiums paid to men and women in a bargaining effect, i.e. men and women receive different premiums at the same firms, and a sorting effect, i.e. women tend to work in low-premium firms. We find evidence that sorting plays a major role in explaining gender differentials in pay on average and at the bottom of the distribution of wages, whereas it is lower in magnitude with respect to bargaining at the top.

JEL codes: J16, J31, J71

Link to the PDF file

#### Finnish top income shares and mobility by gender A peek into unique tax registers

Terhi Ravaska Session 3.2 Room C204

The top income shares have received much attention in recent years in inequality research but the top incomes from gender perspective is still understudied. This study tackles this topic and explores the female representation, income composition, income mobility and permanent income inequality by exploiting a unique Finnish tax register data without top coding in the period 1995-2012. The preliminary findings show that the proportion of women at the very top of the income distribution is higher than previously found for other countries. The income composition of women at the top of the distribution is more heavily dependent on capital than for men which has been observed for other countries as well. The men are more persistent to stay in the top group throughout the observed 18 years time period whether measured with 1, 3 or 5 year mobility. However this is not true for the very top where the mobility for both women and men is following similar levels and patterns. The fitted Pareto distribution done separately for both gender show that glass ceiling in the very top has got thinner in Finland over time.

JEL: D31, J16, D63

Link to the PDF file

#### Segregation of women into low-paying occupations in the United States

Carlos Gradín

Session 3.2 Room C204

We extend the conventional framework for measuring segregation to consider the stratification of occupations by gender, i.e. when either women or men are predominantly segregated into low-paying jobs. We propose the use of the concentration curve to analyze first-order stochastic dominance, and concentration indices to obtain complete orderings and to quantify the phenomenon. With this approach, we show that the decline in gender segregation of occupations in the US over time was accompanied by a deeper and longer reduction in their stratification. The different characteristics of men and women cannot account for current segregation or stratification levels. The profound changes in the composition of the workforce over time by education or marital status, however, did help to substantially explain their trends. The level of stratification was farther reduced by gender-biased changes in the earnings structure, while changes in conditional occupational distributions only contributed to these declines before 1990.

JEL Classification: J16, J42, J71,

Link to the PDF file

#### On the Accumulation of Wealth under Aspirations

Ana I. Moro-Egido, Jordi Caballe Session 3.3 Room C415A

We analyze the effects of the introduction of aspirations both on the pattern of wealth accumulation along the life cycle of

individuals displaying a "joy-of-giving" motive for bequests and on the evolution of wealth within a dynasty. We will show that the introduction of aspirations at different ages display different effects on the amount of saving of workers. However, both adult and old aspirations dampen the positive effect on wealth accumulation brought about by warm-glow altruism. Therefore, under aspirations, both bequest motivated and non-bequest motivated individuals will behave more similarly than when they do not exhibit aspirational concerns. We also show that the introduction of aspirations raises the speed of convergence to the dynastic steady state when there exist a bequest motive. However, when this motive is absent, aspirations lower the speed of convergence.

JEL classification codes: E21, D11.

Link to the PDF file

#### Bequests and the Accumulation of Wealth in the Eurozone

Stefan Humer, Mathias Moser, Matthias Schnetzer Session 3.3 Room C415A

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. Using unconditional quantile regressions, we show that the elasticities of both wealth sources differ considerably across countries and are overly non-linear. Depending on the position in the wealth distribution, an additional percentile in the income distribution corresponds to a 0.1-0.5 percentile increase in the net wealth distribution. We find these effects to be substantially stronger for inheritances vis-á-vis income from employment. In the bottom decile, households have to climb less than two percentiles in the income distribution to compensate a one percentile increase in the inheritance distribution, whereas this ratio surges to almost four percentiles at the top of the wealth distribution.

JEL codes: C21, D31

Link to the PDF file

#### **Inheritances and Inequality of Opportunity in Wealth**

Juan C. Palomino, Juan G. Rodriguez, Gustavo A. Marrero Session 3.3 Room C415A

While the analysis of inequality of opportunity (IO) in income has flourished in the last decade, the study of wealth opportunity has not seen the same development. Recent findings about the historical trends and levels of wealth inequality have not been accompanied by advances in the study of the opportunity component of that inequality. Using a unique dataset for Spain that contains information about wealth, income and external circumstances (gender, parental occupation and inheritances), this paper analyzes IO in wealth in 2011 applying a non-parametric regression method. Our results show that inheritances play a distinct role in determining the IO in wealth and in income. While the level of IO in wealth is strongly related to whether the household received inheritance and, especially, to the amount of the inheritance received, this factor does not seem to be an important circumstance in determining the level of IO in income.

JEL codes: D31, D63, I24

Link to the PDF file

# Inequality in parental time with children: Evidence from the Multinational Time Use Study (1961-2011)

Evrim Altintas, Alessandra Casarico, Alessandro Sommacal *Session 3.4 Room C203* 

This paper investigates parental time with children in a novel approach which provides both information on parental time investment over the entire distribution and summary measures, such as the Gini coefficient, to capture the change over time and across countries of parental time inequality. We advance previous research, which exclusively focuses on the comparison of the mean differences between groups (e.g. low vs high educated parents), by offering evidence on both within- and across group heterogeneity in parental time with children. The analysis is based on data from the Multinational Time Use Study for the last

five decades in 20 countries. The sample is limited to married or cohabiting parents with young children (under 5). The results show that inequality in paternal time investment in the last half-century has always been higher than inequality in maternal time investment, though the gap narrowed in the last decade. In addition, there is a strong correlation between the Gini coefficients for mothers and fathers care time. The Gini coefficient among low-educated parents is consistently higher than that of high-educated parents, and in the case of fathers the gap is widening. This is indicative of increasing inequality within the low-educated father group. Inequality in time investment in children correlates positively with income inequality and negatively with public expenditure on family, suggesting that children in certain countries experience multiple disadvantages. The findings also point out to large cross-national differences, the US being the most unequal country in terms of time investment in children especially in the last decade.

JEL codes: J13, J22

Link to the PDF file

#### **Hours Inequality**

Daniele Checchi, Cecilia Garcìa-Peñalosa, Lara Vivian *Session 3.4 Room C203* 

Earnings inequality can be the result of a high dispersion or hourly wages or of hours of work, yet the role of the latter in explaining differences across countries and over time in earnings inequality has received little attention. This uses data for the US, the UK, Germany and France over the period 1989-2012 to examine hours inequality. We find that hours dispersion can account for over a third of earnings inequality in some countries and that its contribution has been growing over time. The increasing importance of hours inequality is largely the result of changes in the correlation between hourly wages and hours worked, which has in some cases moved from being negative to being positive. Those at the top of the wage distribution have increased hours worked, while those at the bottom have reduced them, implying that a group of low-wage/low-hours workers had emerged in a number of countries.

JEL Classification: D31, J22

Link to the PDF file

#### **Consumption Inequality across Heterogeneous Families**

Alexandros Theloudis Session 3.4 Room C203

This paper studies the transmission of wage shocks into consumption in two-earner unitary families that exhibit unobserved preference heterogeneity. Heterogeneity is nonparametric and nonseparable from household preferences. I derive analytical expressions for any moment of the cross-sectional joint distribution of consumption and earnings relying on approximations as in Blundell, Pistaferri, and Saporta-Eksten (2016). These expressions enable the decomposition of consumption inequality into distinct components pertaining to wage inequality, preference heterogeneity, and heterogeneity in initial conditions. I establish identification of any moment of the cross-sectional distribution of policy-relevant parameters, such as consumption and labor supply elasticities with respect to wages, from panel data on consumption, hours, and earnings. Identification does not rely on any specific parametrization of household preferences or their distribution. To illustrate these points empirically, I fit second and third moments of consumption, earnings, and wages in the PSID. After controlling for a rich set of observables, I find: (1) substantial heterogeneity in consumption preferences but not in preferences over labor supply; (2) the distributions of permanent and transitory wage shocks are left-skewed implying that, on average, a negative wage shock is more unsettling than a positive one; (3) transitory wage shocks are, on average, fully smoothed but there is substantial heterogeneity in the ability families have to insulate consumption from such shocks. The findings are consistent with an environment where households are differentially affected by liquidity constraints.

JEL classification: D12, D30, D91

Link to the PDF file

#### **Anatomy of Income Inequality in the United States: 1979-2013**

Aboozar Hadavand Session 3.5 Room C198

This paper provides a novel analysis of the trend in income inequality in the United States between 1979-2013. There are two ways in which this paper contributes to the literature. First, I analyze how much of the existing inequality in the U.S. is due to the demographic changes that happened over this period. Using microdata from Luxembourg Income Study and after decomposing inequality into within- and between-age group components, I find that the within-group share of overall inequality in the U.S. is high and steady compared to other developed countries. I also find that about 17 percent of the rise in inequality in this period is due to the between-group component (life-cycle effects). Second, I provide a regression analysis to explain crossgroup variations in inequality during the period. I estimate that most of the rise in inequality has happened among middle-aged men while inequality among women, especially among married women has, in fact, decreased. This more granular analysis of inequality can help us investigate the causes of inequality, which would be impossible if we only look at a single inequality statistic.

JEL codes: D31, J11, D63

Link to the PDF file

# The Distribution of Wealth by Age and Income: An Analysis Based on Microdata from the Luxembourg Wealth Study (LWS) Database

Nathaniel Johnson, Janet Gornick Session 9.3 Room C415A

The study of wealth inequality has been limited usually to one country and one measure of wealth. Most research does not examine the full distribution of wealth and its relationship with other socio-economic factors. The goal of this descriptive analysis is to compare wealth distributions across countries in two dimensions. The first is the distribution of wealth by income level. It is to be expected that wealth and income are highly correlated; however, the US stands out in the inequality of wealth with respect to income. Relative to low-income households in other countries, low-income Americans in comparative perspective have low-value homes, and they are unlikely to have substantial financial investments. The second dimension is the distribution of wealth across the age spectrum. Elderly American households rely heavily on financial assets. While younger American households have relatively low levels of wealth.

JEL: D1, D3, J1

Link to the PDF file

#### On the diversity of assets holdings in the United States in 2007 and 2009.

Eva Sierminska, Jacques Silber Session 3.5 Room C198

This paper proposes to apply diversity indices to the study of asset distribution. At the individual level a diversity index like the so-called Gini-Simpson index would measure the probability that two dollars, drawn randomly from the total wealth of an individual, are allocated to two different types of wealth. Other diversity indices, such as entropy related indices, may be similarly defined when analyzing the composition of wealth. These concepts are applied to the study of wealth in the United States. The recession that started in the United States in December 2007 affected families in many ways. Families have seen an increase in unemployment, have had serious difficulties in meeting debt obligation and have been faced with changing levels of income and wealth. The literature examining the effect of the recession on the well-being of households, the inequality of incomes and wealth found that although wealth levels have fallen and inequality has increased the effect has not been uniform across families. In this paper, by borrowing concepts from biology and ecology we define an asset diversity index. Next, we look at the determinants of asset diversity and the way changes in life events could affect this measure. In the final section of the paper, we investigate whether asset diversity could be an additional indicator of vulnerability of households in terms of their wealth holdings by analyzing the relationship between asset diversity and wealth outcomes. Our analysis is focused on financial assets. We use a unique panel data set that provides us with comprehensive household level income and wealth data for 2007 and 2009

for the United States—the Survey of Consumer Finances. We find that asset diversity increased over 2007 and 2009. In addition, it increases with age, education and income and it is lower at the bottom of the wealth distribution. Life changing situations such as getting divorced or losing ones job have a statistically significant negative effect on a change in diversity, while getting married or having a deteriorating health has a positive effect. Active money management also affects asset diversity positively. In terms of the relationship between wealth outcomes and asset diversity we find there to be a significant relationship between asset diversity and wealth gains as well as wealth losses, particularly at the bottom of the wealth distribution.

JEL Classification: D14

Link to the PDF file

#### Social values for equality and preferences for state intervention: Is the USA Exceptional?

Lars Osberg, Insa Bechert Session 3.6 Room 9204

This paper examines whether public attitudes to economic inequality differ in the USA and Europe or whether the more important difference lies in attitudes to the appropriate role of government in changing inequality, using International Social Survey Programme (ISSP) data on 11 countries from the ISSP Social Inequality modules (1987, 1992, 1999 and 2009). In all countries, the vast majority of respondents agree that income differences are too large. The ISSP questions on what a corporate CEO and an unskilled factory worker do earn and what they should earn indicate that respondents generally underestimate the size of current earnings gaps, particularly in the U.S., but the should earn ratio is far below actual earnings differentials in all countries. There is no evidence of a simple USA / Europe difference in average preferences for aggregate economic (in) equality, but the most recent data shows evidence for: (1) more dispersion in attitudes among Americans (which is consistent with recent United States voting behavior and opinion polling); (2) a similar distribution of preferences in the USA, Great Britain and Germany for leveling down of the top of the earnings distribution which contrasts with the stronger consensus in Scandinavia and in the transition economies for wage compression.

JEL Codes: D300, D31, J31

Link to the PDF file

#### Inequality, redistributional preferences, and the extent of redistribution

Hannu Tanninen, Matti Tuomala, Elina Tuominen Session 3.6 Room 9204

This paper examines empirically the relationship between the extent of redistribution and the components of the Mirrlees framework by utilising the Luxembourg Income Study (LIS) database. The database provides information on both factor and disposable incomes. In addition to traditional linear specifications, we use flexible methods to allow nonlinearities because pre-specified functional forms are not easy to justify in our empirical investigations. We study 14 advanced countries over the last three to four decades and find a positive link between factor-income inequality and the extent of redistribution. We also investigate the relationship between the extent of redistribution and redistributional preferences – using top tax rates as a proxy – and find that top tax rates are positively associated with redistributive outcomes. In addition to finding the above-mentioned support for the Mirrlees model, we find that there are some additional time-varying factors behind the evolution of the extent of redistribution: the extent of redistribution increased until the 1980s but this development has changed since then.

JEL classification: C14, D31, H3

Link to the PDF file

### Top Incomes and Inequality in the UK: Reconciling Estimates from Household Survey and Tax Return Data

Richard Burkhauser, Nicolas Hérault, Stephen Jenkins, Roger Wilkins Session 3.7 Room 9205

We provide the first systematic comparison of estimates of UK inequality derived from tax data (World Top Incomes Database) and household survey data (the Households Below Average Income subfile of the Family Resources Survey). We document by how much existing survey data underestimate top income shares relative to tax data and then, exploiting the flexibility provided by access to unit-record survey data, we derive new top-income-adjusted data that enable us to: better track tax-data-estimated top income shares; change the definitions of income and income sharing unit used and thereby undertake more comparable cross-national comparisons (we provide a UK-US illustration); and examine UK inequality levels and trends using four summary indices. Our estimates reveal a greater rise in the inequality of equivalised gross household income between the mid-1990s and late-2000s than shown by the corresponding Households Below Average Income series, especially between 2004/05 and 2007/08.

JEL Codes: D31, C81

Link to the PDF file

#### Nonlinearity and cross-country dynamics of income inequality

Tuomas Malinen, Leena Kalliovirta Session 3.7 Room 9205

We use top income data and the newly developed regime switching Gaussian mixture vector autoregressive model to explain the dynamics of income inequality in developed economies within the last 100 years. Our results indicate that the process of income inequality consists of two equilibria identifiable by high inequality, high income fluctuations and low inequality, low income fluctuations. Our results also imply that income inequality in the U.S. is the driver of income inequality in other developed economies. Both economic and institutional changes emanating from the U.S. explain this dominance.

JEL classification: C32, C33, D30

Link to the PDF file

#### An integrated approach for top-corrected Ginis

Charlotte Bartels, Maria Metzing *Session 3.7 Room 9205* 

Household survey data provide a rich information set on income, household context and demographic variables, but tend to under report incomes at the very top of the distribution. Tax record data offer more precise information on top incomes, but at the expense of household context details and incomes of non-filers at the bottom of the distribution. We combine the benefits of the two data sources and develop an integrated approach for top-corrected Gini coefficients where we impute top incomes in survey data based on information from tax data on the upper end of the income distribution. Thereby, we can produce top-corrected Ginis reflecting the inequality of living standards of the entire population, in contrast to the established top-corrected Gini approach that is restricted to inequality of tax income over tax units. Top-corrected Ginis produce higher inequality estimates in those European countries that exclusively rely (Germany, UK) or have relied (Spain) on interviews for the provision of EU-SILC survey data.

JEL codes: C46, D31, H2

Link to the PDF file

#### Ageing Poorly? Accounting for the decline in earnings inequality in Brazil, 1995-2012

Francisco Ferreira, Sergio Firpo, Julian Messina *Session 3.8 Room 9206* 

The Gini coefficient of labor earnings in Brazil fell by 20% between 1995 and 2012, from 0.5 to 0.4. The decline was even larger by other measures, with the 90-10 percentile ratio falling by almost 40%. Although the conventional explanation of falling education premium did play a role, a RIF regression-based decomposition analysis suggests that the decline in the experience premium was the main driver of inequality dynamics during the period. Substantial reductions in the gender, race, informality and spatial wage gaps, conditional on human capital and institutional variables also contributed to the decline. Although rising minimum wages were equalizing during 2003-2012, they had the opposite effects during 1995-2003.

JEL Codes: D31, J31

Link to the PDF file

### Income Inequality, Growth and Elite Taxation in Brazil: New Evidence Combining Survey and Fiscal Data, 2001-2015

Marc Morgan Session 3.8 Room 9206

This paper describes the methods used and the preliminary results obtained in the assessment of the distribution of income in Brazil over the last fifteen years. We produce new series combining annual and nationally representative household survey data with detailed information on income tax declarations recently released by the Brazilian Federal Tax Office in a consistent manner. Our results provide a sharp upward revision of the official estimates of inequality in Brazil, while the decreasing inequality trends are less pronounced than previously thought. The notable result is the exceptionally large concentration of income at the top and the relative stability over time. The Top 10% income share fell from 55% to 53% of pre-tax fiscal income between 2001 and 2015, while the Bottom 50% share rose from 11% to 12%. Brazils squeezed Middle 40% of the distribution decreased its low share from 35% to 34%. Despite strong average income growth, the poorest 50% only made moderate gains, which came at the expense of small losses to the middle and the top. But concentration of income at the top remains exceptionally high, with corporate capital owners and high-rank civil servants dominating the summit of the distribution. We analyze the personal income tax and find that the majority of the income of the very rich in Brazil is not subject to the tax. This explains the lower effective tax liability that is observed for upper groups and illustrates that the personal income tax is not a progressive policy tool in Brazil, violating the principles of horizontal equity and vertical equity. This motivates the creation of a unified personal income tax that would incorporate all income categories

JEL Classification: D31, D63, H2.

Link to the PDF file

#### Foreign workers, inequality and polarization

Chung Choe, Philippe Van Kerm Session 3.8 Room 9206

The presence of foreign workers concentrated in both tails of the wage distribution is commonly deemed to drive wage inequality upwards. This paper develops recentered influence function regression methods to identify where foreign workers stand in the distribution of private sector wages in Luxembourg, and assess whether and how much their wages contribute to overall wage inequality. In effect, this is captured by measuring the distributive impacts of a notional marginal increases in the proportion of foreign workers on selected quantiles and on other aggregate functionals of interest. Beyond inequality, the paper examines measures of polarization. Such measures are notably more difficult to interpret than inequality measures. A careful study of the influence functions of polarization indices facilitates interpretation and helps understanding why different measures can lead to drastically different conclusions.

By 2006, seven in ten private sector workers in Luxembourg were foreign. Our analysis of the 2006 Structure of Earnings Survey reveals that foreign workers have generally lower wages than natives and therefore tend to haul the overall wage distribution downwards. Yet, their influence on wage inequality reveals small and negative. Their impact on polarization is ambiguous and depend on the details of how polarization is measured. All impacts are further muted when accounting for human capital and, especially, job characteristics. Not observing any large positive inequality contribution on the Luxembourg labour market is a striking result given the sheer size of the foreign workforce and its polarization at both ends of the skill distribution.

JEL codes: J15; J31; J61

Link to the PDF file

#### Banking development, socioeconomic structure and income inequality

Alexandra D'Onofrio, Raoul Minetti, Pierluigi Murro

Session 3.9 Room C202

Using rich, unique data from the Italian local credit markets (provinces), this paper investigates the impact of local banking development on income inequality and the role of the socioeconomic structure in this link. Exploiting the Italian historical banking regulation to instrument for the local presence of bank branches, we find that local banking development mitigates income inequality. However, the finance-inequality nexus manifests itself only in relatively advanced areas. When we study the structural channels of influence, we uncover evidence that banking development can reduce inequality by affecting geographical mobility and urbanization, while it has modest effects through the development of material infrastructures and human capital.

JEL codes: G21; G38; O15

Link to the PDF file

#### Persistent household over-indebtedness and exits from over-indebtedness. Evidence from EU-SILC

Stefan Angel

Session 3.9 Room C202

In contrast to income poverty there is less research on spells of deprivation measures, particular illiquidity and debt problems of private households. The aim of this study is to investigate differences between household overindebtedness and income poverty dynamics with a focus on exit probabilities and persistence. Over-indebtedness is defined as a situation of illiquidity resulting in payment problems. The analysis is based on SILC panel data 2010-2013 for 25 European countries. With reference to the theoretical literature on poverty dynamics (social stratification perspective, life course perspective), we evaluate the effects of structural factors (f.i. sex, education) on the likelihood of exiting over-indebtedness as compared to biographical events (f.i. getting unemployed, changes in the marital status). Moreover, the impact of different welfare state regimes and single welfare state indicators on both the likelihood of exiting over-indebtedness and its duration are investigated. Particularly for exit rates from poverty, consistent country differences according to welfare regimes are not always found in the literature. This could also apply to over-indebtedness. Preliminary results using ordinal logit models with the number of over-indebtedness spells as dependent variable show that the odds for more over-indebtedness periods are significantly lower for older age groups than for younger age groups. Moreover, a quick escape from both over-indebtedness and income poverty is more prevalent in liberal welfare states. There is further descriptive evidence, however, that once a longer time has been spent in deprivation, the likelihood of exiting over-indebtedness is highest in conservative welfare states respectively in liberal welfare states in the case of income poverty. Currently on-going analyses also apply multilevel regression methods and focus on the effects of single policy indicators.

JEL: D14, I32, Z13

Link to the PDF file

#### Attitudes to Mobility, Equality and Growth

Yi Chen, Frank Cowell Session 4.1 Room 9207

Do people value economic mobility or equality if these objectives can only be pursued at the expense of economic growth? We use a unique dataset derived from a questionnaire study to investigate these questions. The data set consists of 1213 questionnaire responses of university students in "greater China".

JEL codes: D30; D63; D81; I31

Link to the PDF file

#### **Perceptions of Inequality**

Markus Knell, Helmut Stix Session 4.1 Room 9207

Although people's perception of (income or wealth) inequality has important effects on their decisions as economic agents or

voters, little is known about how perceptions relate to objective inequality. We present a novel formal framework that is based on the assumption that people typically do not observe the entire income (wealth) distribution but that their guesses about the extent of inequality are based on heterogeneous reference groups. This framework implies that the perception of inequality will be different positions in the income distribution but that for a specific position various dimensions of the inequality perception should be related to each other. The framework delivers four testable predictions that correspond to popular survey questions: First, low (high) income individuals overestimate (underestimate) their own position. Second, subjective estimates of average earnings increase with the own income position. Third, high or low income people have different perceptions about the distributional shape of society (e.g. pyramid or diamond). Fourth, the subjective perception of inequality is lower for high-income individuals. Survey data from 40 countries provide strong support for the framework.

JEL-Classification: D31, D63, D83, C81

Link to the PDF file

## Feeling poor, feeling rich, or feeling middle-class: an empirical investigation

Mathilde Lebrand, Maurizio Bussolo Session 4.1 Room 9207

Based on their objective economic situation, individuals form perceptions of their relative economic well-being (or economic standing) which in turn affect their overall well-being. This paper studies how inequalities affect the way individuals rank and perceive themselves in terms of their economic standing in a society. Using the three waves of the survey LiTS for European countries, we report two interesting facts. First there exists a puzzling bunching of individual perceptions in the middle of the economic ladder, as if most people feel that they belong to the middle class. There only exists a weak link between the objective ranking and the subjective ranking. We therefore investigate two hypotheses. First we discuss the role of income inequalities in increasing the dispersion of perceptions away from feeling middle-class. Second we look at the subjective ranking as a type of measure of well-being. We show how (i) individual components, like the decile of consumption, the work profile, the age and gender, or the expectations of mobility, and (ii) the outcomes of reference groups can explain the choice of feeling poor, rich or middle-class.

JEL Classification: D31, D3, I31

Link to the PDF file

#### Poverty convergence or divergence? No, Convergence clubs!

Gustavo Marrero, Angel S. Marrero, Dario Teixido Session 4.2 Room C204

Ravallion (2012) reopened the debate on the existence or not of poverty convergence. Despite finding evidence in favour of income convergence, this author concludes that there is no poverty convergence, an outcome questioned by the analyses of Salai-Martín (2006) and also by more recent studies. Using the most up-to-date data from PovcalNet, in this paper we review the discussion on poverty convergence. Firstly, we conduct a basic analysis of β-convergence, showing that the results are sensitive to taking logarithms on poverty data. However, there are evidence of geographical and non-random associations among countries that suggest the existence of groups of countries with similar convergence patterns. Thus, secondly, we employ the methodology of Phillips and Sul (2007) to analyse the existence of poverty convergence clubs, and results show evidence of six poverty convergence clubs. We also estimate convergence clubs in income and inequality, and we show that the correspondence between poverty and income clubs is much greater than that between poverty and inequality clubs, and that the former is particularly close among countries with high levels of poverty, which would suggest the existence of a poverty trap.

JEL Classification: D31, I32

Link to the PDF file

#### **Poverty Dynamics across Russian Regions**

Dmitry Rudenko

Session 4.2 Room C204

The paper analyses trends in monetary poverty and income inequality across Russian regions during 2002-2014. The share of population with incomes below the subsistence minimum anchored at the level of 2014 is used as a measure of poverty. We have analyzed the dynamics of spatial inequality in Russia in terms of monetary poverty and its determining factors. The paper demonstrates the presence of inter-regional convergence in incomes across Russian regions using various techniques. The assessment has been based on min-max ratio, quartile and percentile ratio, coefficient of variation as well as Gini index. Spatial inequalities in terms of monetary poverty has been reducing. The strong redistributive policy (mainly social) and crisis changed the trend of regional inequality in Russia with the divergence to convergence. On the other hand, we reassess the relationship between economic growth, inequality and poverty (Bourguignon triangle) using a panel of 82 Russian regions for the period 2002-2014. Average poverty change as well as year-to-year estimates are regressed against initial values and geographic, demographic, labor market, openness, institutional indicators using OLS and GMM models. There are still some persistently poor rural areas as well as small towns in Russia where educational levels are low and job opportunities scarce.

JEL: I32, R12

Link to the PDF file

## GDP per capita versus median household income: What gives rise to the divergence over time?

Brian Nolan, Max Roser, Stefan Thewissen Session 4.2 Room C204

Divergence between the evolution of GDP per capita and the income of the median household as measured in household surveys is giving rise to a range of serious concerns, with much of the focus on the role of rising inequality, especially in the USA. This paper investigates the extent of that divergence and the factors that contribute to it across 27 OECD countries, using data from OECD National Accounts and the Luxembourg Income Study. While GDP per capita has risen faster than median household income in most of these countries over the period these data cover, the size of that divergence varied very substantially, with the USA being a clear outlier. The paper distinguishes a number of factors contributing to such a divergence, and finds wide variation across countries in the impact of the various factors. Further, both the extent of that divergence and the role of the various contributory factors vary widely over time for most of the countries studied. Rising inequality is only a part of the explanation, often making only a modest contribution. One important implication is that median income should be accorded a central role in official monitoring and assessment of living standards over time.

Link to the PDF file

## Accounting for Wealth Inequality Dynamics: Methods, Estimates and Simulations for France (1800-2014)

Bertrand Garbinti, Jonathan Goupille-Lebret, Thomas Piketty Session 4.3 Room C415A

This paper combines different sources and methods (income tax data, inheritance registers, national accounts, wealth surveys) in order to deliver consistent, unified wealth distribution series by percentiles for France over the 1800-2014 period, with detailed breakdowns by age, gender, income and assets over the 1970-2014 sub-period. We find a large decline of the top 10We develop a simple simulation model highlighting how the combination of unequal saving rates, rates of return and labor earnings leads to large multiplicative effects and high steady-state wealth concentration. Small changes in the key parameters appear to matter a lot for long run inequality. We discuss the conditions under which rising concentration is likely to continue in the coming decades.

JEL codes: D31, E21

Link to the PDF file

### The Historical Evolution of the Wealth Distribution: A Quantitative-Theoretic Investigation

Joachim Hubmer, Per Krusell, Anthony Smith

Session 4.3 Room C415A

This paper employs the benchmark heterogeneous-agent model used in macroeconomics to examine drivers of the rise in wealth inequality in the U.S. over the last thirty years. Several plausible candidates are formulated, calibrated to data, and examined through the lens of the model. There is one main finding: by far the most important driver is the significant drop in tax progressivity that started in the late 1970s, intensified during the Reagan years, and then subsequently flattened out, with only a minor bounce back. The sharp observed increases in earnings inequality, the falling labor share over the recent decades, and potential mechanisms underlying changes in the gap between the interest rate and the growth rate (Piketty's r-g story) all fall far short of accounting for the data.

JEL codes: E21, H31, D31

Link to the PDF file

## Logitrank Based Measures of Joint Income and Wealth Distributions: Trends of Inequality in the United States, 1992 to 2013

Louis Chauvel, Bar Haim Eyal Session 4.3 Room C415A

The study of joint income and wealth distributions is important to the understanding of economic inequality. However, these are extremely skewed variables that present tails containing strategic information that usual methods such as percentile grouping cannot easily reveal. In this study, we propose a new method providing a more appropriate examination of tails: the isograph and its subproduct: the logitrank. These tools offer a more detailed conception of inequality. Here, with the "survey of consumer finances" SCF 1992-2013, we confirm four results: income inequality increased significantly, in particular in the upper middle classes; wealth inequality affected similar behavior; the W/I ratio, that measures the importance of wealth on income, increased significantly; the association between high wealth and high incomes increased too. We confirm also that this increase in the association is not a trivial consequence of inequality expansion, but means a stronger coherence of the diagonal at the top of income and wealth. Keywords: inequality, income, wealth, distributions, isograph, logitrank

JEL codes: D31, C46, C16.

Link to the PDF file

## An econometric investigation of the causes of Sub-Saharan Africas inequality trends bifurcation over 1991-2011

Giovanni Andrea Cornia Session 4.4 Room C203

Abstract. The paper documents the inequality changes that have occurred over 1991-2011 in Sub-Saharan Africa based on a new Integrated Inequality Database (IID-SSA) that covers 81.8 percent of the regions population and a greater share of its GDP. The analysis of these data shows that SSA experienced a bifurcation of consumption inequality trends, as in the 2000s 17 countries recorded a Gini decline and 12 a rise. The paper then discusses the immediate and underlying determinants of such bifurcation and tests their impact through a multivariate macro-panel regression. The results indicate that the rate of growth of GDP/c did not affect inequality but that its sectoral composition was closely associated with it. Growth driven by agriculture, manufacturing and labor-intensive services was equalizing while the opposite was true for oil extraction, mining and skill-intensive or highly informal services. Improvements in the distribution of human capital reduced inequality while lack of land reform and high population growth increased it. As for global conditions, remittances and rising world agricultural prices were equalizing, but rising FDI and terms of trade in extractive industries were regressive. ODA was statistically non-significant, but debt cancellation reduced inequality significantly. Domestic policy changes had a mixed effect: a rise in direct taxes and social expenditure reduced inequality, trade liberalization was un-equalizing, and low inflation and a competitive exchange rate reduced income polarization. Finally, the recent fall in HIV/AIDS incidence and conflict intensity reduced inequality modestly, but the spread of democracy did not have a statistically significant effect on it.

JEL Codes: C1; O55; I24

Link to the PDF file

## Is Poverty in Africa Mostly Chronic or Transient? Evidence from Synthetic Panel Data

Hai-Anh Dang, Andrew Dabalen Session 4.4 Room C203

Absent actual panel household survey data, we construct for the first time synthetic panel data for more than twenty countries accounting for two-thirds of the population in Sub-Saharan Africa. We employ in this process repeated cross sections that span, on average, a six-year period for each country. Our analysis suggests that all these countries as a whole have had pro-poor growth. In particular, one third of the poor population escaped poverty during the studied period, which is larger than the proportion of the population that fell into poverty in the same period. The region also saw a nine-percent reduction in poverty and a 28-percent increase in the size of the middle class. Chronic poverty, however, remains high and a considerable proportion of the population are vulnerable to falling into poverty.

JEL: C15, D31, I31

Link to the PDF file

## Most of Africas Nutritionally Vulnerable Women and Children are Not Found in Poor Households

Caitlin Brown, Martin Ravallion, Dominique van de Walle *Session 4.4 Room C203* 

Abstract: Antipoverty policies in developing countries often assume that targeting poor households will be reasonably effective in reaching poor individuals. We question this assumption. Our comprehensive assessment for Sub-Saharan Africa reveals that undernourished women and children are spread quite widely across the distribution of household wealth and consumption. While the expected positive household wealth effects on individual nutritional status are evident, roughly three-quarters of underweight women and under-nourished children are not found in the poorest 20% of households, and around half are not found in the poorest 40%. The mean joint probability of being an underweight woman and living in the poorest wealth quintile is only 0.03. Countries with higher overall rates of undernutrition tend to have a higher share of undernourished individuals in non-poor households. The results are consistent with existing evidence of substantial intra-household inequality in nutritional attainments.

JEL codes: I14, I32, I38

Link to the PDF file

#### Limited budgets and equality of opportunity: an application to health

Guillem Lopez Casasnovas, Héctor Pifarré i Arolas, Frederic Udina Session 4.5 Room C198

Roemers theory of equality of opportunity (EOp) makes a crucial distinction between fair and unfair inequalities, based on the assumption that groups experiencing unfair forms of inequality should be compensated. We argue that when there are insufficient resources to fully compensate groups or individuals for existing unfair inequalities a very real concern when applying EOp to actual policies it is equally important to decide which of the groups facing illegitimate inequalities should receive public compensation. In our work we focus on inequalities arising from uneven access to resources, both public and private. In the case of healthcare, these kinds of inequalities can be driven by both untargeted public provisions, such as universal healthcare systems, and by private spending on health. To guide public choice in these important situations, we propose a novel framework that extends social deliberation to cover the application of equality of opportunity.

JEL Classification codes: I140 D630

Link to the PDF file

#### Inequality, poverty and growth: the role of opportunities

Gustavo Marrero, Juan Gabriel Rodríguez

Session 4.5 Room C198

Individual income is basically determined by individual effort and by opportunities related to aspects beyond the individual's control (endogenous circumstances like family background, and exogenous circumstances like place of birth and health endowments). We build a general equilibrium model of human capital to study the effect of inequality of opportunity and pure effort on real per capita income growth. In the absence of poverty traps, inequality of opportunity due to exogenous circumstances has a negative impact on growth, while the effect of inequality of pure effort is positive. When poverty traps exist, the same result is obtained but, in addition, inequality of parental human capital increases the number of poor people and so reduces growth.

JEL Classification: D63, I32, O40.

Link to the PDF file

## Do people who grew up with better circumstances exert more effort? The answer of the rational choice model under uncertainty

Arnaud Lefranc, Alain Trannoy Session 4.5 Room C198

The equality of opportunity theory posits that individuals should be responsible for effort. Roemer (1993) introduces the idea that people should be only responsible for effort that is cleaned for the impact of cir- cumstances. The correlation of effort and circumstances should be count as a circumstances. We introduce uncertainty in the model meaning that the results of effort are mediated by luck. We ask whether in the classical Savage rational choice the correlation between effort and circumstances is positive or negative. A clearcut answer is surprisingly difficult to obtain, meaning that from a theoretical view point, it will not matter to consider the relative or the absolute version of effort.

JEL CODES: D63,J62,C14

Link to the PDF file

## **Employer-Mandated Complementary Health Insurance in France: The likely effects on social welfare**

Aurélie Pierre, Florence Jusot, Denis Raynaud, Carine Franc Session 4.6 Room 9204

In France, the ANI reform has mandated private sector employers to compulsory offer from January 1st, 2016, a sponsored complementary health insurance to all their employees and to their unemployed former employees for up to 12 months. This reform is going to reduce the cost of complementary health coverage for employees but prevents them to choose their optimal level of coverage. Moreover, it may deteriorate the health risk of the pool of insured covered by individual contracts and thus, increase individual premiums. Wages may also potentially decrease by the employer subsidy amount. Taking into account the Expected utility theory framework, we simulate the likely effects of this law on the welfare of the population and its distribution, according to several scenarios on the evolution of premiums and wages. This research is based on the 2012 Health, Health Care and Insurance survey linked to the administrative data of the National Health Fund, which provides information on health, complementary health insurance, employment status, risk preferences and healthcare expenditures. Assuming that premiums and wages will remain the same after the reform, the law will increase the social welfare of the population, despite the loss of those who previously chose to be uninsured. This positive effect is mainly driven by the employer subsidy rather by the reduction of financial risk exposure. Assuming a 20% increase in individual premiums, collective welfare will decrease. Those who suffered the most from the reform are the poor, the elderly and those with poor health status. Finally, the law will induce a loss of collective welfare if wages decrease by the employer subsidy.

JEL code: I13, I18, D63

Link to the PDF file

Fiscal Policy, Inequality, and Poverty in Iran: Assessing the Impact and Effectiveness of Taxes and

#### **Transfers**

Ali Enami, Nora Lustig, Alireza Taqdiri Session 4.6 Room 9204

Using the Iranian Household Expenditure and Income Survey for 2011/12, we estimate the impact of fiscal policy on inequality and poverty and calculate newly developed indicators to determine the effectiveness of each fiscal intervention and the fiscal system as a whole. We find that the combined effect of direct and indirect taxes, cash transfers, and indirect subsidies is a decline of 0.0854 points in the Gini coefficient and 10.5 percentage points in the poverty headcount ratio. Transfers are relatively more effective in reducing inequality than taxes. For example, direct transfers together realize about 40% of their potential to reduce inequality while direct taxes together only realize about 20% of their potential. Direct and indirect taxes are especially effective in raising revenue without causing poverty to rise, a desirable property of fiscal systems. While transfers are not targeted toward the poor, they reduce poverty significantly. The main driver is the Targeted Subsidy Program (TSP), a universal cash transfer program implemented in 2010 to compensate individuals for the elimination of energy subsidies. In spite of its large poverty reducing impact, the effectiveness of TSP is rather low because of its universality. We show through simulations that given the amount spent on TSP, the poverty reducing impact could be enhanced if resources were more targeted to the bottom deciles.

JEL classification: D31, H22, I38

Link to the PDF file

### Gender Bias in the Spending of Child Benefits: Evidence from a Natural Policy Reform

Panayiota Lyssiotou Session 4.6 Room 9204

We examine whether the effectiveness of targeted unconditional child benefits, in increasing the welfare of children, depends on who in the family controls this income transfer; the husband or the wife. We exploit the introduction of child benefits to families with at least four children. The law assigned the mother as the beneficiary but, when asked who collected the amount, one third of beneficiary families reported the father as the recipient. We apply a difference-in-difference approach and account for possible non-random selection into who was reported as the recipient. We find evidence in favour of a gender bias in the spending of child benefits. On average, the treatment group's spending on child clothing, food and tobacco was significantly different from that of the control group after the reform. Further analysis suggests that treated families with the mother (father) in control of the amount spent more on child clothing and food (tobacco) relative to the control group after the reform. The evidence has implications on the design of welfare programs to benefit the children and in alleviating consumption inequality and poverty.

JEL Classification: I38, H31, J18, D1

Link to the PDF file

#### **Inequality-Minimization with a Given Public Budget**

Johannes Koenig, Carsten Schroeder Session 4.7 Room 9205

We solve the problem of a social planner who seeks to minimize inequality via transfers with a fixed public budget in a distribution of exogenously given incomes. The appropriate solution method depends on the objective function: If it is convex, as in the case of the absolute mean deviation, it can be solved by an interior-point algorithm. If it is quasiconvex, as in case of the Gini coefficient, the bisection method can be used. We implement the procedures using artificial and real-world data, and show that the optimal transfer scheme need not comply with a transfer scheme that perfectly equalizes incomes at the bottom of the distribution.

JEL: C61, D63, H23

Link to the PDF file

#### Optimal non-welfarist income taxation for inequality and polarization reduction

Vincenzo Prete, Alessandro Sommacal, Claudio Zoli Session 4.7 Room 9205

We adopt a non-welfarist approach to investigate the effect of different redistributive objectives on the shape of the optimal tax schedule. We consider inequality and income polarization reduction objectives and we identify socially desirable three brackets piecewise linear tax systems that allow to collect a given revenue. The optimal tax problem is formalized as the maximization of families of rank-dependent social evaluation function defined over net incomes. These functions allow to incorporate within the same social evaluation model concerns for inequality and for polarization reduction. Both with fixed and variable labour supply the optimal tax schemes substantially differ as the focus moves from the reduction of inequality to the one of polarization. In the case of inequality concerns the optimal tax system is mainly convex exhibiting increasing marginal tax rates unless when labour supply elasticities are higher. While in case of polarization concerns the optimal tax scheme is non-convex with reduced marginal tax rate for the upper income bracket.

JEL codes: D31, D63, H21.

Link to the PDF file

## **Equality of Opportunity and Freedom from Poverty: Measurement and Optimal Taxation**

Paul Hufe, Andreas Peichl, Ravi Kanbur Session 4.7 Room 9205

In this paper we reconcile the ideals of equal opportunities and absence of poverty from a perspective of inequality measurement. A particular advantage of our approach is its appeal to the measurement of unfair inequalities. While standard measures of equality of opportunity are criticized for understating the extent of unfair inequality due to informational shortcomings, our approach yields strong upward corrections of measured unfair inequality by acknowledging that judgments on the fairness of an outcome distribution are informed by multiple normative principles. Furthermore, we sketch an optimal tax model in which we ascribe the ideals of opportunity equalization and poverty minimization to the objective function of the social planner. As in previous works on non-welfarist income taxation, we find that marginal tax rates are not bound to be zero at the bottom and at the top of the ability distribution. Furthermore, the framework allows for negative marginal tax rates at some points of the ability distribution.

JEL-Codes: D31; D63; D72; H21

Link to the PDF file

## Intrahousehold allocation of resources and household deprivation

Elena Bárcena, Maite Blazquez, Ana I. Moro-Egido Session 4.8 Room 9206

This paper analyzes to what extent the financial regime of the couple, defined in terms of the level of income pooling and decision-making responsibilities, is associated with different levels of household deprivation. We conclude that either contributing whole incomes to the household and sharing decisions or not pooling income and the female partner making decisions are associated with low levels of deprivation. We identify household characteristics that are frequently associated with these financial regimes, such as higher household income levels, middle-aged households, not being in a legal consensual union, low level of education, members suffering from a chronic disease, and the female having a higher income or education. We also observe that a financial regime characterized by not pooling all incomes and sharing decisions is related to higher levels of deprivation once controlling for other sociodemographic variables. This regime is more often observed among dual-earner households, higher household income levels, and younger and middle-aged households. These results provide evidence of the need to take into account the standard determinants of deprivation together with variables that capture the ways in which household members make decisions and how they pool incomes in designing policies to reduce deprivation.

JEL CODES: C21, D13, I32

Link to the PDF file

## Improving the Supplemental Poverty Measure: Two Simple Proposals

John Bishop, Jonathan Lee, Lester Zeager Session 4.8 Room 9206

Abstract We raise two concerns about the Supplemental Poverty Measure: a discontinuity in the economies of scale implied by the equivalence scale and the adjustment for local prices using only housing costs. We propose simple corrections for both issues that can be applied by anyone using the public use files of the Current Population Survey. The changes we propose would have the greatest effect on poverty rates for the elderly and Hispanics and would reduce the difference in poverty rates by metro status.

JEL classification: I32 (Analysis and Measurement of Poverty)

Link to the PDF file

## Varying Economies of Scale in Houisng: The Impact on Poverty Statistics of Varying Economics of Scale in Housing

Thesia Garner, Trudi Renwick Session 4.8 Room 9206

In producing the Supplemental Poverty Measure (SPM) thresholds and subsequent statistics, it is assumed that all consumer units, regardless of size and composition, share the same fraction of the thresholds on housing (i.e., shelter and utilities). The implication of this assumption is that the implicit economies of scale for housing are the same as those for the thresholds as a whole. If, on the other hand, one assumes that housing expenditures are subject to greater economies of scale than the food and clothing parts of the thresholds, it would be reasonable to use a larger percentage to identify the housing portion of the thresholds for smaller families. This would have two consequences for SPM poverty statistics. First, the portion of the SPM thresholds subject to the geographic adjustment would be larger for smaller families — increasing thresholds for those who live in areas with housing costs greater than the national median, and decreasing thresholds for those who live in areas with lower housing costs. Second, since the values of housing subsidies in SPM resources are capped at the housing portion of the thresholds, this would increase the value of housing subsidies for some smaller consumer units and could reduce their poverty rates. In this paper we investigate the impact of varying the housing share of the SPM poverty thresholds directly, first, by varying the share of the thresholds for housing, and secondly and indirectly, by applying differ equivalence scales by consumer unit size to the housing share of the thresholds only. American Community Survey (ACS) and U.S. Consumer Expenditure Interview Survey (CE) data are used to explore how housing expenditures as a share of income and expenditures on food, clothing, shelter, and utilities (FCSU), respectively, vary by consumer unit size. Data from the CE are also used to estimate equivalence scales; these scales result in the indirect adjustment to the housing shares. The Current Population Survey Annual Social and Economic Supplement (CPS) data are used to analyze the impact of allowing the housing shares of the thresholds to vary on SPM poverty rates. Results suggest that choice of the housing shares (and equivalence scales) has very little impact on either overall poverty rates or the impact of housing assistance on poverty.

JEL codes: C6 C8 D12

Link to the PDF file

## Perceptions of Inevitability and Demand for Redistribution: Evidence from a Survey Experiment

Miquel Pellicer, Patrizio Piraino, Eva Wegner Session 4.9 Room C202

Session 1.5 Room C202

We argue that individuals perceptions on whether inequality can be decreased may help explain the documented disconnect between concerns for inequality and demand for redistribution. If inequality is seen as inevitable, information on income disparities may remain inconsequential for policy preferences. We explore this idea in a survey experiment in South Africa, one of the most unequal countries in the world. The survey includes treatments that are designed to affect the perceived inevitability of inequality. We find that the demand for redistributive policies reacts to treatments that successfully reduce inevitability perceptions, while it is insensitive to other types of information/messages. We consider, and rule out, some prominent alternative explanations for this finding. Our analysis points to the importance of intractability beliefs and suggests a promising, and heretofore unexplored, avenue of research for refining our understanding of the determinants of demand for redistribution.

JEL codes: D31, H23

Link to the PDF file

### Subjective well-being among deprived young people

Paula Carrasco, Rodrigo Ceni, Ivone Perazzo, Gonzalo Salas Session 4.9 Room C202

Young people suffer higher levels of deprivation than older people, mainly in developing countries. This population suffers not only barriers to get a job or to stay in the education system, but they can also erect their own barriers which prevent them from achieving desirables trajectories in the future. We exploit the exogenous variations that bring us the social intermediation program, Jóvenes en Red (JeR), to analyze how subjective well-being is constructed and what the role of the aspirations is. We develop a simple theoretical model to link subjective well-being, aspirations and relative income, including the effects a social intermediation program can have. By estimating the model through instrumental variables using distance in meters between each individual's house and their reference center, we are able to identify causal effects. As the model predicts, with constant aspiration a social intermediation program can negatively impact subjective well-being and subjective relative income. Additionally, we find this effect is only for those individuals with lower levels of aspiration. Our results help to understand the potentialities and limitations of social intermediation policies. Behavioral changes among young people with severe deprivation take into account the fact that the adjustment in perceptions about their relative income must be accompanied by an increase in their aspirations.

JEL codes: D60, I38, O15.

Link to the PDF file

#### The orness value for rank-dependent welfare functions and rank-dependent poverty measures

Oihana Aristondo, Ciommi Mariateresa *Session 5.1 Room 9207* 

We propose two distribution-sensitivity criteria to classify the rank-dependent welfare functions. These criteria compare the reaction of the welfare function to lossy transfers and lossy equalization transfers among individuals. We see that these classifications in terms of their distribution-sensitivity to these transfers can be established focusing only on the weights assigned to each welfare function. We also propose a criterion to sort the rank-dependent welfare functions and the rank-dependent poverty measures in terms of a mathematical value called orness. We provide a classification in terms of the orness value for the welfare functions of the S-Gini family, the Bonferroni index and the De Vergottini index. Another classification is provided for the poverty measures of the Poverty Gap Ratio, the Sen indices, the Thon index and the Thon family of indices, the Kakwani family of indices and the S-Gini family of indices. Finally, we prove that the orness classification for welfare functions and the orness classification sproposed above. Moreover, we see that for a subset of welfare functions and another subset of poverty measures, the orness classification and the distribution-sensitivity classification based on lossy transfers and lossy equalization transfers are equivalent.

JEL Classification: C02, C44, D63, I32.

Link to the PDF file

## Evaluating intertemporal growth, mobility and the distribution of income streams

Flaviana Palmisano, Dirk Van de gaer *Session 5.1 Room 9207* 

We propose a social welfare function to evaluate a profile of income streams and compare the welfare gain of the actual profile relative to the income profile where the individual receives his first period income in each period. We derive necessary conditions for the welfare gain to be positive, and show how this welfare gain can be decomposed in a cost due to the aversion to time fluctuations in incomes generated by individuals' reranking, a cost due to aversion to time fluctuations given ranks, the equalization

in time averaged incomes due to reranking, and a pure effect of economic growth. We illustrate the analysis using CNEF data. JEL codes: D31, D63, I32.

Link to the PDF file

#### Measuring inequities in health over the lifecycle: age-specific or lifecycle perspective?

Damien Bricard, Florence Jusot, Alain Trannoy, Sandy Tubeuf Session 5.1 Room 9207

Since the pioneer article of Michael Grossman (1972), health is viewed as a capital that evolves over time along the lifecycle. This paper deals with the issue of measuring health inequality over the lifecycle. We first propose a methodology which captures the lifecycle and aged-specific perspectives. One can measure inequality over the lifecycle by firstly aggregating health over ages at the individual level and then measuring inequality over individuals; this is the lifecycle perspective. Otherwise, one can measure health inequality over individuals at each age and then aggregate the inequality measure over ages; this is the age-specific perspective. Another difficulty is to cope with the ordinal and qualitative nature of those health outcomes. We use first order stochastic dominance and Hammond dominance criteria (Gravel, Magdalou and Moyes (2014)) to rank social states according to an inequality view point. We then propose an empirical application by using data from a British cohort study (the 1958 National Cohort Development Study) and focus both on self-assessed health (SAH) and death as measures of health. Death is ranked as obviously the worst health status but an even more important feature of death is that it is an absorbing state. Our results show that the two perspectives impact on the existence and the magnitude of inequalities of opportunities in health in the UK. While the lifecycle perspective provides a global view of inequality of opportunity, the age-specific perspective highlights how the inequality linked to bad social and regional circumstances rises when people are no longer young. In particular, we can detect (i) a change in the dynamic of inequality of opportunity favoring people born in South-East UK in the second part of their lifecycle, (ii) a reinforcement of inequality of opportunity between regions over lifetime. This is particularly striking in the context of the NHS.

JEL: I14; C14

Link to the PDF file

#### So close yet so unequal: Spatial inequality in American cities

Francesco Andreoli, Eugenio Peluso Session 5.2 Room C204

Rich income data and a new methodology are employed to investigate patterns and consequences of spatial inequality in American cities over the last 35 years. New Gini-type indices, which assess spatial inequality using individual neighborhoods of variable size as primitives, uncover from the data robust evidence of growing income inequality within the neighborhood. The welfare implications of this trend are investigated through reduced-form models, addressing potential bias due to sorting across and within cities. An exogenous increase of the income mix in the neighborhood is found to yield a significant drop in intergenerational mobility gains for young people.

JEL codes: D31, C21, J62

Link to the PDF file

## Income Inequality among Regions and Metropolitan Statistical Areas: 2005 to 2015

Brian Glassman Session 5.2 Room C204

Two main areas have received little attention in the income inequality literature recently. The first concerns where in the income distribution income inequality takes place. The second concerns how income inequality and changes in income inequality differ throughout the country. I address these concerns and differ from previous research in four main ways. First, I use a Census internal dataset, American Community Survey 1-year, which has rarely been used to study income inequality. Second, I examine

income inequality, the effect of government programs, and how these have changed over time among regions and among small, medium, and large MSAs. Large MSAs, MSAs with populations over 1 million, have been studied before while medium MSAs, MSAs with populations between 250,000 and 1 million, and small MSAs, MSAs with populations less than 250,000 have not been studied. Third, I use a unique set of income inequality measures that are rarely used together in the same paper: the 90-10 Ratio, the 50-10 Ratio, the 90-50 Ratio, and the 99-90 Ratio. These measures are important because they allow me to examine income inequality at different points in the income distribution. Finally, I regress these income inequality ratios on a set of MSA variables in order to investigate what characteristics of MSAs are associated with higher or lower income inequality in different parts of the income distribution.

JEL codes: D63, D31, I28

Link to the PDF file

## Cost of Living, Centralized Wage Setting and Urban Wage Premia

Paolo Naticchioni, Marianna Belloc, Claudia Vittori Session 5.2 Room C204

This paper aims at estimating the extent of the urban wage premia in Italy, a country characterized by a centralized wage setting system and by a spatially heterogeneous cost of living. We make use of a unique administrative employer-employee database on the universe of the Italian workers provided by the Italian Social Security Institute (INPS), merged with the housing prices collected by Osservatorio Mobiliare Italiano (OMI), used to compute a cost of living measure at the municipality level, for the 2005-2015 period. We implement a mincerian regression analysis to compute nominal and real, in spatial terms, urban wage premia, controlling for unobserved individual heterogeneity and endogeneity issues. Our results confirm the presence of positive, although small, nominal urban wage premia and of negative and not negligible real urban wage premia: urban workers suffer a penalty in terms of real spatial wages. Our conclusions are robust to different computations of local price indexes, and to the use of local labour markets instead of municipalities. Further, we show that sorting of workers and firms in dense areas is much weaker when considering real wages instead of nominal ones, as well as the degree of assortative matching.

JEL CODES: R11, R12, J31

Link to the PDF file

## A Head-to-head Comparison of Augmented Wealth in Germany and the United States

Timm Boenke, Markus M. Grabka, Carsten Schroeder, Edward N. Wolff Session 5.3 Room C415A

We provide levels and composition of and inequalities in household augmented wealth the sum of net worth and pension wealth for two countries, United States and Germany. Pension wealth makes up a considerable portion of household wealth about 48% in the United States and 61% in Germany. The higher share in Germany narrows the wealth gap between both countries: While average net worth in the United States (US337,000*in*2013) *isabout*1.8 *timestheaveragevalueinGermany*, *augmentedwealth*(US 651,000) is only 1.4 times higher. Further, the inclusion of pension wealth in household wealth reduces the Gini coefficient from 0.892 to 0.701 in the United States and from 0.765 to 0.511 in Germany.

JEL codes: D31, H55, J32

Link to the PDF file

## Structural policy and the inequality-unemployment trade-off: Is the German strategy applicable to France?

Nathalie Chusseau, Joël Hellier Session 5.3 Room C415A

The German labour market reforms implemented in the 2000s have generated an inequality-unemployment trade-off. This article questions the consequences for France of a similar policy and addresses the possibility of alternative strategies. Utilising the

CGE model built by Beissinger et al. (2016), we implement a series of simulations to analyse the impacts (i) of a German-type labour market reform, and (ii) of a policy which stimulates the demand for non-tradable services. We show (i) that structural differences could make a German-type policy less efficient in terms of unemployment and/or more painful in terms of inequality in France, and (ii) that a public action which directly targets the demand for non-tradable services could provide an alternative policy which erases the inequality unemployment tradeoff.

JEL codes: E24, E61, F16

Link to the PDF file

### The evolution of top earnings in Germany: Evidence from wage tax records

Markus Hahn

Session 5.3 Room C415A

Using German wage tax record data, I create consistent, long-run series of top earnings shares and percentile ratios, covering 1926 to 2010. The data allow me to distinguish between West and East Germany since 1992. I find that the concentration of earnings at the top fell from 1926 until the mid-1970s and then rose continuously until 2010. This concentration was lower in East Germany than in West Germany but grew faster in the former than in the latter. Levels and trends in German top earnings shares were similar to those in the UK but different to those in the US, which experienced higher levels and much faster growth that began one decade earlier than in Germany. The concentration of earnings was higher among men than among women and, also, grew faster among men than among women, especially during the 1980s. The share of women in the upper tail of the earnings distribution was very low. Their share in the top 10% increased from 8.5% in 1955 to 18.4% in 2010. It was higher in East Germany than in West Germany.

JEL codes: D31, C81

Link to the PDF file

#### Is there a Trade-off between Efficiency and Equity in Education?

Simona Ferraro, Kaire Põder *Session 5.4 Room C203* 

This paper identifies the relationship between pupils Family Background, their mathematics scores, and school-level policies, using the 2012 Programme of International Student Assessment for Italy and multilevel modelling. School-level policies have played a leading role in recent school reforms in many countries, but there is no straightforward empirical evidence for how they affect pupils outcomes and the equality of educational outcomes. Our findings show that that only some school policies intensify the Family Background Effect - (educational equity) and affect student outcomes (educational efficiency) simultaneously. We find that competitive schools are able to screen students by selecting higher socio-economic status parents, which mainly harms equity without having much effect on efficiency.

JEL Classification: I21, I24, C19

Link to the PDF file

#### **Upward Mobility and Legislator Support for Education Reforms**

Luna Bellani, Vigile Fabella Session 5.4 Room C203

This paper investigates how upward mobility affects legislator voting behavior towards education reforms. We develop an electoral competition model where voters are parents who value the future economic status of their children, while childrens' economic status is affected by public education and upward mobility. The model predicts a decrease in legislator support for redistributive education policy with a rise in upward mobility. We test this hypothesis using a newly compiled dataset of roll call voting on California education legislation matched with electoral district-level upward mobility. Our findings suggest that the likelihood of a legislator voting noon redistibutive education bills increases by 10% when upward mobility in his electoral

district increases by a standard deviation.

JEL codes: I24, D72, H4

Link to the PDF file

## Intergenerational transmission of education: Evidence from the World War II cohorts in Europe

Enkelejda Havari, Franco Peracchi Session 5.4 Room C203

This paper estimates the intergenerational effects of World War II hardships on the education attainment of the next generation. Combining rich individual data on two linked generations from the Survey of Health, Ageing and Retirement in Europe (SHARE) with historical data on the occurrence and duration of military operations in different European countries, we study the intergenerational transmission of education from parents to children in about 13 European countries. We focus on parents born between 19201956, most of whom were exposed to military operations, bombing, stress, and hunger. Using an instrumental variable (IV) strategy we show that children whose parents were exposed to hardship have on average less schooling. The effect is stronger for mothers compared to fathers. Moreover, mother's education seem to be very important for girls but not as much for boys. Our results point towards a very strong gender effect in the transmission of education in presence of severe hardships caused by World War II.

Link to the PDF file

### Adding Insult to Injury: Racial Disparity in an Era of Increasing Income Inequality

Randall Akee, Maggie R. Jones, Sonya R. Porter Session 5.5 Room C198

Using unique linked data, we examine income inequality and mobility across racial and ethnic groups in the United States. Our data encompass the universe of tax filers in the U.S. for the period 2000 to 2014, matched with individual-level race and ethnicity information from multiple censuses and American Community Survey data. We document both income inequality and mobility trends over the period. We find significant stratification in terms of average incomes by race and ethnic group and distinct differences in within-group income inequality. The groups with the highest incomes Whites and Asiansalso have the highest levels of within-group inequality and the lowest-income groups: Blacks, American Indians, and Hispanics have lower within-group inequality and immobility. On the other hand, our low-income groups are also highly immobile when looking at overall, rather than within-group, mobility. These same groups also have a higher probability of experiencing downward mobility compared with Whites and Asians. We also find that within-group income inequality increased for all groups between 2000 and 2014, and the increase was especially large for Whites. In regression analyses using individual-level panel data, we find persistent differences by race and ethnicity in incomes over time. We also examine young tax filers (ages 25-35) and investigate the long-term effects of local economic and racial residential segregation conditions at the start of their careers. We find persistent long-run effects of racial residential segregation at career entry on the incomes of certain groups. The picture that emerges from our analysis is of a rigid income structure, with mainly Whites and Asians confined to the top and Blacks, American Indians, and Hispanics confined to the bottom.

JEL: J15, D31, D63

Link to the PDF file

#### Work Limitations and Income Inequality in the US 1988-2016

Katie Jajtner, Christine Fountain, Sophie Mitra, Austin Nichols *Session 5.5 Room C198* 

This paper studies income inequality by work limitation status in the United States from 1988 to 2016. Despite a growing literature on income inequality, households or individuals with disabilities in the United States have not been considered as part of investigations of changes in inequality. In a context of rising income inequality within the general population as well as

policies to improve rights and inclusion with respect to disability, it is unclear how income inequality might have evolved within and between households with and without work limitations.

We use data from the March supplement of the Current Population Survey (CPS) using primarily the work limitation disability measure of the CPS. We compute measures of income inequality and the progressivity of government transfers and disability income.

Results indicate that income inequality within households with work limitations is high relative to that of households without such limitations. There is some evidence to suggest that this inequality among work-limited households also increases at a faster rate. Within groups, for government transfers, we find that a measure of progressivity is significantly declining among households without any work limitation and not changing among households with work limitations. Disability payments are found to have significantly increased in progressivity among households with work limitations only.

Overall, disability payments may have mitigated rising income inequality for households with work limitations. More broadly, it appears that policies aimed to enhance the economic and social participation of persons with disabilities in the last three decades might not have been able to reduce income inequality across work limitation status, and warrant further research.

JEL codes: I14, D31

Link to the PDF file

## American Exceptionalism in Market Income Inequality: An Analysis Based on Microdata from the Luxembourg Income Study (LIS) Database

Janet Gornick, Branko Milanovic, Nathaniel Johnson Session 5.5 Room C198

Earlier work has established that the US has exceptionally high inequality of disposable household income (i.e., income after accounting for taxes and transfers). Recent work by Gornick and Milanovic (2015) established that, among working-age households, a major contributor to that exceptional inequality is a high level of inequality in market income (i.e., income before taxes and transfers), paired with a moderate level of redistribution. In this paper, we look more deeply at market income inequality, focusing on its main component labor income across a group of 24 OECD countries. We disaggregate the working-age population into household types, defined by the number and gender of the households earners and the partnership and parenting status of its members. We conclude that within-group inequality of labor incomes in the US is, in almost all groups, high by OECD standards.

JEL Codes: D31, D33

Link to the PDF file

#### **Unequal Opportunity, Unequal Growth**

Gustavo Marrero, Juan Gabriel Rodriguez, Roy van der Weide, None Session 5.6 Room 9204

This paper argues that inequality can be both good and bad for growth, depending on what inequality and whose growth. Unequal societies may be holding back one segment of the population while helping another. Similarly, high levels of income inequality may be due to a variety of different factors; some of these may be good while others may be bad for growth. The paper tests this hypothesis by unpacking both inequality and growth. Total inequality is decomposed into inequality of opportunity, due to observed factors that are beyond the individuals control, and residual inequality. Growth is measured at different steps of the income ladder to verify whether low, middle, and top income households fare differently in societies with high (low) levels of inequality. In an application to the United States covering 1960 to 2010, the paper finds that inequality of opportunity is particularly bad for growth of the poor. When inequality of opportunity is controlled for, the importance of total income inequality is dramatically reduced. These results are robust to different measures of inequality of opportunity and econometric methods.

JEL Classification: D63, E24, O15

Link to the PDF file

## **Inequality of Opportunity and Growth in Italy**

Maria Lucia Pace Session 5.6 Room 9204

Recently, many studies look at the decomposition of inequality index into inequality of opportunity (IO) and inequality of returns to effort (IE) in US and Europe. The decomposition of inequality index in two components allows not only to analyze the prevalence of fair or unfair income inequality in a country, but also to find a clearer relation between inequality and growth. In fact, it is still missing an analysis of the relation between inequality of opportunity and economic growth in Italy. This paper aims at filling in that gap, by using Italian data from Bank of Italys Survey on Income and Wealth from 1998 to 2014. We choose the coefficient of variation to measure inequality of opportunity at the regional level and, then, we studied its relation with economic growth using Dynamic Panel Data models estimated through System-GMM. Finally, in order to check if the coefficient of variation could be a measure as good as the Entropy's index, I will compare the results of the estimated panel models with the two different inequality of opportunity indeces. We evaluate the effect of inequality of opportunity on different economic growth period, going from a short run growth (2 years) to a very long run growth (10 years). Our results shows that, in Italy, inequality of opportunity is negative for growth in the short period, but it does not have any effect on long run growth.

JEL codes: C33; D63; O40

Link to the PDF file

#### **Inequality of Opportunity: New Measurement Methodology and Impact on Growth**

Geoffrey Teyssier Session 5.6 Room 9204

Does income inequality matter for economic growth? This paper hypothesizes that the traditional use of a single scalar measure of inequality to explain growth cannot account for the complexity of the relationship. It may be more relevant to decompose income inequality into inequalities of opportunity and effort in order to capture separately the offsetting channels relating total inequality to growth. Inequality of opportunity is expected to lower growth in the form of foregone investments opportunities. Inequality of effort is expected to spur it though strengthened economic incentives. Yet, the micro-level data necessary to compute these two inequalities is demanding and seldom available in practice. Consequently, the empirical evidence about their effect on growth is scarce. This paper proposes a new measurement methodology to face this data limitation. The method, based on multiple imputation, is shown to yield precise estimates of inequalities of opportunity and effort. In turn, their effect on growth is empirically investigated in Brazil, a country with a high potential for growth and excessive inequalities. Inequality of opportunity is found to deter subsequent growth in Brazilian municipalities over the period 1980-2010, while inequality of effort is found to prompt it. These two effects are robust and significant, in contrast to that of total inequality.

JEL Classification Codes: D63, O15, O40.

Link to the PDF file

#### Financial deepening and income distribution inequality in the euro area

Donatella Baiardi, Claudio Morana Session 5.7 Room 9205

The paper yields new evidence on real income convergence for euro area (EA) countries since the mid-1980s, with a special focus on the effects of the subprime and sovereign debt financial crises. By conditioning the turning point per capita income of the Kuznets curve (KC) to the level of financial development, we find strong evidence in favor of an EA-wide steady-state financial KC and of ongoing convergence across EA members toward a common per capita income turning point level. Moreover, a counterfactual analysis shows a worsening in income inequality for all the EA countries during the recent financial crises. From a policy perspective, our findings highlight the need to fully correct those factors that triggered the transition from the Great Moderation to the Great Recession, in particular excessive risk taking of financial intermediaries, boosted by financial deregulation and misled risk perceptions.

JEL CODES: G20, G28, O11, O15, O16.

Link to the PDF file

#### **Income Inequality and Sovereign Default**

Zeynep Kabukcuoglu, Kiyoung Jeon Session 5.7 Room 9205

In this paper, we study the role of income inequality in governments borrowing and default decisions. We consider a standard endogenous sovereign debt default model and extend it to allow for heterogeneous agents. In addition to shocks to the average income level, we consider the effect of shocks to income distribution. Consistent with the data, income dispersion across individuals increases during a recession and decreases during an expansion. The model is calibrated to match a number of stylized facts for Argentina. We show that (i) rising income inequality within a country increases the probability of default significantly; (ii) the effect of output shocks is larger than the effect of inequality shocks; (iii) the joint effect of these two shocks can generate a high default probability consistent with the Argentine data; (iv) the model can match the high volatility of consumption of the poor relative to the rich; (v) progressive income taxes can reduce the default risk.

JEL codes: F3, F4, E5

Link to the PDF file

#### **Macroprudential Policy and Household Wealth Inequality**

Jean Francois Carpantier, Javier Olivera, Philippe Van Kerm *Session 5.7 Room 9205* 

Macroprudential policies, such as caps on loan-to-value (LTV) ratios, have become part of the policy paradigm in emerging markets and advanced countries alike. Given that housing is the most important asset in household portfolios, relaxing or tightening the access to mortgages may affect the distribution of household wealth in the country. In a stylised theoretical model we show that the final level of wealth inequality depends on the size of the LTV ratio, housing prices, credit cost and the strength of a bequest motive, and therefore it is not possible to predict an unequivocal effect of LTV ratios on wealth inequality. These trade-offs are illustrated with estimations of "Gini Recentered Influence Function" (Gini-RIF) which use household survey data from 12 Euro-zone countries that participated in the first wave of the Household Finance and Consumption Survey (HFCS). The results show that, among the households with active mortgages, high (i.e. less stringent) LTV ratios at the time of acquisition are related with more wealth inequality today, while housing prices are negatively related, i.e. less inequality when prices have risen. The strength of bequest motives tends to be negatively related with wealth inequality, but credit cost does not show a significant role on the distribution of wealth.

JEL codes: D31, G21, E21

Link to the PDF file

## Poverty and Childrens Cognitive Trajectories: Evidence from the United Kingdom Millennium Cohort Study

Bruckauf Zlata, Chzhen Yekaterina Session 5.8 Room 9206

Existing evidence is inconclusive on whether a socio-economic gradient in childrens cognitive ability widens, narrows or remains stable over time and there is little research on the extent of cognitive mobility of children who had a poor start in life compared to their peers. Using data from five sweeps of the United Kingdom (UK) Millennium Cohort Study (MCS) at the ages of 9 months, 3 years, 5 years, 7 years and 11 years, this paper explores the cognitive ability trajectory of children in the bottom decile of the distribution at a given age, and the factors that drive or hinder their progress relative to their peers. Using discrete-time event history analysis methods, the paper analyses childrens risks of moving in and out of the bottom decile of the cognitive ability distribution. The findings indicate a relatively high level of cognitive mobility between ages 3 and 11, especially in the pre-school period (between ages 3 and 5), with children from income-poor households more likely to get trapped in the bottom of the age-specific cognitive ability distribution. Parental education plays a dual buffer role: it protects children from falling

behind their peers as well as increasing the chances of moving up the ability distribution. Parental involvement, such as reading to a child and regular bedtimes at the age of 3, was found to protect children from falling into the bottom group of cognitive distribution but not necessarily helping lower scoring children to move up.

JEL codes: I32, J13, I24.

Link to the PDF file

#### **Prenatal Economic Shocks and Birth Outcomes**

Andrew Clark, Conchita D'Ambrosio, Nick Rohde Session 5.8 Room 9206

This paper examines the effects of major prenatal economic shocks experienced by mothers on two indicators of newborn infant health - birth weights and head circumferences. We take microdata from the highly detailed ALSPAC survey from the United Kingdom and apply regression models to estimate effect sizes. Controlling for a wide variety of physiological and socioeconomic factors, we estimate that experiencing such shocks in the first 18 weeks of gestation lowers birth weights by around 60-80 grams and reduces head circumferences by about 2-3mm. We also explore potential transmission channels including (i) worsening physiological health via absolute material deprivation, (ii) increased unhealthy coping behaviors such as tobacco and alcohol consumption, and (iii) the direct endocrinological effects of increased psychosocial anxiety. We find evidence in favor of hypotheses (i) and (ii) but (iii) remains unsupported. Our results suggest policies that provide financial aid to low income expectant mothers, and programs which discourage risky health behaviors, may improve newborn infant health.

JEL Classification: I1, J1

Link to the PDF file

### Doing Better for Single-Parent Families: Poverty and Policy across 45 Countries

Laurie Maldonado Session 5.8 Room 9206

Inequality and poverty are on the rise in many countries. Single-parent families, and other households at the bottom of the income distribution, are often left behind. Not only are single parents likely to be poor, but with increased competition with dual earners there is risk of greater inequality between single-parent and two-parent families. This study examined how policy differently affects the employment and poverty rates of single-parent and two-parent families. The study examined 373,032 households with children in 45 countries, using household-level data from the Luxembourg Income Study database and country-level policy indicators from The WORLD Policy Analysis Center. The findings show that the US has the highest rate of single-parent families in poverty of all countries. Decomposition analyses show that redistribution, particularly family transfers, have reduced poverty for all families. Most countries cut their poverty by half or more, but some countries are more effective than others. Ireland and UK reduce poverty substantially with family transfers. The Nordic countries have lower poverty to begin with but still cut their poverty by more than half. Multilevel policy analyses found the strongest policy effect to be maternity leave. Paid maternity leave significantly reduced poverty for single-parent families only, the model did not find evidence to support that maternity leave was significant for all families. Results were insignificant that leave for both parents increased the poverty risk of single parents over coupled parents, unless there was a bonus for fathers to share leave. Working regulations, rest leave, modestly reduced poverty for families.

Link to the PDF file

## Top Lights - Bright Spots and Their Contribution to Economic Development

Melanie Krause, Richard Bluhm Session 5.9 Room C202

Satellite data on nighttime luminosity are an increasingly popular proxy for economic activity, but their utility for analyzing comparative development across the globe is severely limited by top-coding. The commonly used satellites do not accurately

capture the brightness of large and densely populated cities. As a result, they underestimate differences between urban and rural regions, as well as developed and developing countries. Our main contribution in this paper is to propose a new and easy-to-use procedure to correct for top-coding of the lights data. We show that, like top incomes, top lights are Pareto distributed. On this basis, we derive simple formulas for the top-adjusted mean and spatial Gini coefficient. Furthermore, we develop simulation methods to correct the data at the pixel level. Our top-coding correction raises the worldwide Gini coefficient of spatial inequality in lights by about 9 percentage points. This rather large increase underlines the importance of big cities for global economic activity. Our applications show that top-coding affects estimates of the income elasticity of light at the national and sub-national level as well as urban-rural differences in Africa.

JEL codes: D3, O1, C34

Link to the PDF file

## Inequality, Privatization and Democratic Institutions in Developing Countries

Lidia Ceriani, Simona Scabrosetti, Francesco Scervini Session 5.9 Room C202

According to the existing theoretical literature there are several channels through which privatization of State-owned enterprises and assets may shape the distribution of income either increasing or decreasing the level of inequality. As a consequence, the net effect becomes an empirical matter of relative magnitudes. This paper is a first attempt to empirically investigate the relationship between privatization and income inequality adopting a new approach that focuses on the role of democratic institutions in developing countries. Using an unbalanced panel of 80 countries in the period 1988-2008, we find that privatization is negatively and significantly correlated with inequality when democratic institutions are well consolidated, and positively when they are not. Our results, robust to different specifications, measures of democracy and economic controls, suggest an interesting and not yet investigated policy implication for low or middle-income countries: only after having established mature representative political institutions, privatization appears to be related to a reduction in income inequality.

JEL codes: D30; O15; P5

Link to the PDF file

#### **Share Ownership Distribution And Natural Resource Extraction**

Xiaoyan Liu, Laura Marsiliani, Thomas Renstrom Session 5.9 Room C202

We investigate the effects of inequality in incomes and in share ownership on firms natural resource extraction, both theoretically and empirically. The income distribution is endogenous due to households accumulation of wealth over time. We show that, when firm objectives are endogenous (shareholder voting), the firms do no longer necessarily follow the Hotelling rule, but choose a smaller/larger extraction rate if the decisive individual owns more/less than the population average, if the substitution elasticity is lower than unity (with results reversed for larger than unity). We next investigate empirically the relationship between extraction rates and share ownership, using a panel of 20 U.S. oil firms. The empirical results are consistent with our theoretical hypothesis.

JEL codes: D33, E21, Q30

Link to the PDF file

## Is Inequality of Opportunity Robust to the Measurement Approach?

Xavier Ramos, Dirk Van de gaer Session 6.1 Room 9207

Recent literature has suggested many ways of measuring equality of opportunity. We analyze in a systematic manner the various approaches put forth in the literature to show whether and to what extent different normative choices matter empirically. We use EU-SILC data for most European countries for 2005 and 2011. The divide between ex-ante and ex-post approaches emerges as the normative choice with highest influence on inequality of opportunity country orderings. Growth regressions also illustrate

the relevance of normative choices, as we only find significant negative effects for some ex-ante measures. JEL codes: D3, D63.

Link to the PDF file

## On the measurement of inequality of opportunity: the role of effort-progressive transfers

Casilda Lasso de la Vega, Juan Gabriel Rodriguez, Rafael Salas *Session 6.1 Room 9207* 

We propose three partial inequality-of-opportunity orderings (D-Lorenz, DIF-Lorenz and R-Lorenz) based on effort-progressive transfers, which allow us to decompose overall inequality into inequality of opportunity and inequality of effort using a variety of S-convex inequality indices. To implement empirically this method, a bistochastic non-parametric smoother is provided. This estimator not only approximates the theoretical IO-free distribution and palliates the effort identification problem, but also obtains the standard decomposition of overall inequality as a particular case.

JEL codes: D31, D63, C14

Link to the PDF file

### **Evolution of Inequality of opportunity in Chile**

Gabriela Zapata Roman Session 6.1 Room 9207

This paper compares estimates of inequality of opportunity for different groups of the Chilean population for the years 2006 and 2013, using the parametric and non-parametric methodology developed by Bourguignon, Ferreira and Menéndez (2003), and Checchi and Peragine (2010). These are based on John Roemers work. Roemer (1993, 1998) classified the determining factors of an individual's socioeconomic outcomes (income, status, etc.) as circumstances and effort. Circumstances are exogenous aspects such as gender, race, family background, or place of birth, which may affect a persons outcomes. Effort, on the contrary, depends on individual choice. Equality of opportunity proposes that inequality due to circumstances is compensated by public policy, and inequality due to effort is not. For the non-parametric estimation two observed circumstances are strongly associated with inequality of opportunity: parental education and the region of birth. For the parametric approach health status when the person was born, ethnicity, and whether the person grew up with both parents until the age of 15, are used as circumstances. The paper finds that the share of inequality of opportunity over total income inequality has increase for women and men between 2006 and 2013. Results are sensitive to the inequality index chosen. Estimates using the GINI index are twice as high as those obtained with the MLD index.

JEL Classification: D63, O15, O54.

Link to the PDF file

#### Math, Girls and Socialism

Claudia Senik, Quentin Lippmann Session 6.2 Room C204

This paper argues that the socialist episode in East Germany, which constituted a radical experiment in gender equality in the labor market and other instances, has left persistent tracks on gender norms. We focus on one of the most resilient and pervasive gender gaps in modern societies: mathematics. In spite of the great push of girls into education since the 1980s, mathematics remains a predominantly male field in most developed countries. But the underperformance of girls in math is sharply reduced in the regions of the former GDR, in contrast with those of the former FRG. We show that this East-West difference is due to girls' attitudes, confidence and competitiveness in math, and not to other confounding factors, such as the difference in economic conditions or teaching styles across the former political border. We also provide illustrative evidence that the gender gap in math is smaller in European countries that used to be part of the Soviet bloc, as opposed to the rest of Europe. The lesson is twofold: (1) a large part of the pervasive gender gap in math is due to social stereotypes; (2) institutions can durably modify these

stereotypes.

JEL codes: I2, J16, P36

Link to the PDF file

#### Top incomes and the gender divide

Anthony Atkinson, Alessandra Casarico, Sarah Voitchovsky Session 6.2 Room C204

In the recent research on top incomes, there has been little discussion of gender. A great deal is known about gender differentials in earnings, but how far does this carry over to total incomes? This paper investigates the gender divide at the top of the income distribution using tax record data for eight countries with individual taxation. It shows that women are strongly under-represented at the top of the distribution. Although the presence of women at the top has increased over time, the rise becomes smaller at the very top. The gender gradient with income has become more marked.

JEL Codes: D31, J16

Link to the PDF file

#### The Individualization of Wealth. Evidence from France

Marion Leturcq, Nicolas Frémeaux Session 6.2 Room C204

Over the last decades, the gender wealth gap increased in some countries, including France. This constitutes an economic puzzle, as the accumulation of wealth is related to the marital and labor history of individuals which became very similar for males and females. Using the French wealth surveys, we showed that this puzzle is explained by the individualization of wealth. The demographic changes led to a decrease in the share of wealth held jointly by spouses and to an increase in the share of assets held by a sole individual. We defined an index of individualized wealth and we decomposed its change over time. We showed that the individualization of wealth was explained by the increase of divorce rates among older age groups and by a change in couples' financial arrangements among younger individuals. Then, we showed how the gender wealth gap was related to the individualization of wealth. Its increase was explained by the fact that divorced men were more advantaged after divorce than females among older age groups and by an increase in within couples wealth inequality for younger age-groups. We concluded that the flip side of financial independence between partners is the rise in the gender wealth gap.

JEL codes: J12, D31, E21

Link to the PDF file

#### The unequal opportunity for skill acquisition over the Great Recession in Europe

Sara Ayllón, Natalia Nollenberger Session 6.3 Room C415A

This paper is the first to investigate to what extent the high levels of joblessness brought about by the Great Recession across Europe have translated into higher school attendance among youth. Using cross-sectional and longitudinal data from the EU-SILC on 28 countries, we establish a robust counter-cyclical relationship between rising unemployment rates and school enrollment. The same is true for transitions back to education. However, our analysis by subgroups reveals a worrisome trend by which youths belonging to most disadvantaged backgrounds (measured by low household income) became less likely to enroll in University studies. Our findings suggest that austerity measures and educational cutbacks imposed during the economic downturn have made the opportunities for skill acquisition more unequal according to socio-economic characteristics. JEL codes: I23, I24, J64, E32

Link to the PDF file

## **Global Inequality in a More Educated World**

Amer Ahmed, Maurizio Bussolo, Marcio Cruz, Delfin Go, Israel Osorio-Rodoarte Session 6.3 Room C415A

Younger and better-educated cohorts are entering the workforce while older, less educated, ones leave. This process of rising level of schooling has been accelerating, especially in developing countries, and in the decades ahead it will alter the skill composition of labor supply as well as income distribution at the global level. To what extent? Using a general-equilibrium macro-micro simulation framework that covers harmonized household surveys for 130 countries, this paper analyzes how the forthcoming demographic and education transitions may reshape global inequality over the long-run. Our findings under alternative assumptions suggest that global income inequality will likely decrease by 2030. This outcome is largely driven by shrinking income gaps between countries. Unlike the increase in within-country inequality from the recent globalization of the worlds labor market, the forthcoming education wave would also minimize, mainly for developing countries, the further increase of within-country inequality. However, pressure on the middle class of high income countries may continue.

JEL codes: D31, J11, E24

Link to the PDF file

#### Equality of Opportunity of Education in Germany. Evidence from a quasi-natural experiment.

Sebastian Camarero Garcia Session 6.3 Room C415A

The goal of this paper is to shed light into how equality of opportunity in education (Equality of Educational Opportunity (EEOp) or respectively Inequality of Educational Opportunity (IEOp)) may be shaped by the recent trend to accelerate and intensify the educational process. For this propose, I analyze the impact of a controversial reform in Germany that shortened the duration of secondary school (Gymnasium) by one school year from 9 to 8 years while keeping the curriculum unchanged. Since, both the first student cohort in the new 8 year system and the last one taught for 9 years had to pass the same final university access diploma exams. The sharp, staggered introduction of this reform across the different German federal states can thus be exploited as a quasi-experimental setting, which allows estimating the reform induced increase in learning intensity on IEOp for students in a two step Difference-in-Difference estimation approach (DID). To measure this effect, I take the most recent available Germanspecific data from the Program for International Student Assessment (PISA) studies 2003, 2006, 2009, 2012 (PISA-I-2003-2012) providing comparable measures of cognitive skills in Reading, Mathematics and Sciences for students tested at the end of the 9th grade. Regression findings suggest that increased learning intensity induced by the Gymnasium-8-reform (G-8-reform) did not improve EEOp. In the short-term, IEOp appears not to have changed. However, in the medium-term, a larger fraction in the variation of test scores can be explained by circumstances beyond the control of a 9th grade student. Thus, the analysis indicates that the reform induced increase in learning intensity aggravated IEOp though only after some time - because, for instance, favorable circumstances such as private tuition opportunities may have only materialized into test score differences after a period of adjustment. Moreover, results provide evidence for the existence of subject-dependent curricular flexibilities, with Maths/Sciences being more inflexible, thus more responsive to changing learning intensity than Reading. Thus, this paper is one of the first to provide based on a quasi-experimental setting causal estimators of how a factor, such as learning intensity, affects IEOp (hence also social mobility).

JEL codes: D39, I24, O52

Link to the PDF file

#### **Inequality and the Size of Government**

Weijie Luo, Andrew Pickering, Paulo Santos Monteiro Session 6.4 Room C203

The median voter theory of government size predicts that greater inequality leads to greater demand for redistribution and larger government (Meltzer and Richard, 1981). However, this prediction is often rejected empirically. This paper distinguishes between income inequality induced by differences in labor productivity and income inequality induced by differences in capital income. Whilst the standard argument applies to productivity induced income inequality, greater capital income inequality leads

to smaller government if, as often observed, capital income is difficult to tax. Using OECD data, government size and capital income inequality (proxied by the top 1% income share) are found to be negatively related in both fixed effects and instrumental variable regressions. Moreover, controlling for capital income inequality yields a positive and significant relationship between government size and labor income inequality, as originally conjectured.

JEL: D78, E62, H10

Link to the PDF file

#### Quality of government and subjective poverty in Europe

Massimo Baldini, Vito Peragine, Luca Silvestri *Session 6.4 Room C203* 

We study the effect of quality of government on subjective poverty across European countries and regions, taking advantage of recently released data on the quality of public institutions at the regional level, and of information on household subjective poverty. In the analysis we try to separate the effects of quantity and quality of public services on perceived well-being, controlling for the size of the local government and for the receipt of in-kind services by each household of the sample. Results suggest that good governance significantly reduces the probability of being subjectively poor, both over the whole population and also among households that are poor in terms of monetary income. We then estimate the greater cost that a family has to bear in order to achieve a given level of welfare, if it lives in a region with inefficient public institutions. Our measure of this inefficiency cost is around 6% of disposable income.

JEL Codes: I32, H1, H7

Link to the PDF file

### Revisiting the relationship between welfare spending and income inequality in OECD countries

Giorgio d'Agostino, Luca Pieroni, Isabella Procidano *Session 6.4 Room C203* 

The present paper estimates the effects of welfare interventions on income inequality. We propose a theoretical model showing that welfare policies follow the median voter constituency regardless of whether governments are center-left or center-right in the majority electoral system, whereas large differences exist between center-left and center- right coalitions in the proportional representation system. We exploit these differences in the mechanisms of welfare expenditure to estimate their elasticities on income inequality and find that a 1% increase in government spending reduces the Gini income index by half a percentage point. This result is robust under different compositions of expenditure, alternative imputation model specifications and falsification tests

JEL I38; D30; D72

Link to the PDF file

#### Income distribution, household heterogeneity and consumption insurance in the UK.

Gabriele Amorosi, Amanda Gosling, Miguel Leon-Ledesma Session 6.5 Room C198

This paper uses data from the FES to examine the changing joint distribution of income and consumption from 1968 to 1999. The analysis is given structure by the assumption that households are of three possible types. Within each type there is no permanent heterogeneity but some may have higher current income due to idiosyncratic shocks. This simple idea allows us to estimate the mean income of each group and its variance. This variance will be the variance of the temporary shock. With the further assumption that macro shocks are the same for each group of households, we can then predict the distribution of consumption and the relationship between income and consumption according to the life- cycle model (where current consumption is only a function of permanent income). These predictions are then compared against data and the predictions of a no smoothing extreme where households simply consume out of current income. Our results are as follows. Firstly, the income estimates illustrate quite

starkly the idea of polarisation, the middle income groups are shown to be declining in mass and in relative income. Secondly, neither extreme model fits the data exactly, but the fit of the life-cycle model with 3 types of heterogeneity seems to improve over time. This last gives further support to the idea that part of the increase in inequality is due to risk not to permanent differences and that capital markets appear to be improving households insurance mechanism of against it.

JEL: E21; O15.

Link to the PDF file

#### A different perspective on the evolution of UK income inequality

Anthony Atkinson, Stephen Jenkins Session 6.5 Room C198

We scrutinize the conventional wisdom about the trends in UK income inequality, and also place contemporary inequality in a much longer historical perspective. We combine household survey and income tax data to provide better coverage of all income ranges from the bottom to the very top. We make a case for studying distributions of income between tax units (i.e. not assuming the full income sharing that goes with the use of the household as the unit of analysis) for reasons of principle as well as data harmonization. We present evidence that income inequality in the UK is higher today than it was just before the start of World War 2.

JEL codes: C46, C81, D31

Link to the PDF file

### Top wealth share in the UK over more than a century

Salvatore Morelli, Facundo Alvaredo, Anthony Atkinson Session 6.5 Room C198

Recent research highlighted controversy about the evolution of concentration of personal wealth. In this paper we provide new evidence about the long-run evolution of top wealth shares for the United Kingdom. The new series covers a long period from 1895 to the present and has a different point of departure from the previous literature: the distribution of estates left at death. We find that the application to the estate data of mortality multipliers to yield estimates of wealth among the living does not substantially change the degree of concentration over much of the period both, in the UK and US, allowing inferences to be made for years when this method cannot be applied. The results show that wealth concentration in the UK remained relatively constant during the first wave of globalization, but then decreased dramatically in the period from 1914 to 1979. The UK went from being more unequal in terms of wealth than the US to being less unequal. However, the decline in UK wealth concentration came to an end around 1980, and since then there is evidence of an increase in top shares, notably in the distribution of wealth excluding housing in recent years. We investigate the triangulating evidence provided by data on capital income concentration and on reported super fortunes.

JEL Codes: D3, H2, N3

Link to the PDF file

#### **CPI Bias and Its Implication for Poverty Reduction in Africa**

Andrew Dabalen, Isis Gaddis, Nga Nguyen Session 6.6 Room 9204

International poverty estimates for countries in Africa commonly rely on national consumer price indexes (CPIs) to adjust trends in nominal consumption over time for changes in cost of living. However, the CPI is subject to various types of measurement bias. We use Engel curve estimations (Costa 2001; Hamilton 2001) to assess CPI bias and its implications for estimated poverty trends. Our results suggest that in 11 out of 16 countries in this study poverty reduction may be understated due to CPI bias. With correction of CPI bias, poverty in these countries could fall between 0.8 and 5.7 percentage points per year faster than currently thought. For two countries, however, we find the opposite trend. There is no statistically significant change in poverty patterns

after adjusting for CPI bias for the other three countries.

JEL classification: E30, E31, I32

Link to the PDF file

#### Decomposition of urban-rural inequality in Maurtiania

El Moctar Laghlal Session 6.6 Room 9204

This paper empirically studies the rural-urban income inequality in Mauritania using two waves of nationally representative household surveys (EPCV, 2004 and 2008). The analysis considers the total household expenditure per capita as the measure of the household welfare. The empirical results primarily demonstrate a significant increase of the rural-urban mean gap form 0.38 to 0.58 between 2004 to 2008 despite the exceptional performance of the Mauritanian economy after the political transition operated in 2005. Second, the results of the different decomposition techniques employed show that, in both surveys, the urban-rural gap is mainly due to the difference in the distributions of return to the household characteristics even in the lower part of the distribution of total household expenditure per capita.

JEL classification: C15; I32; O18

Link to the PDF file

#### **Economic Inequality in the Arab Region**

Nadia Belhaj Hassine Session 6.6 Room 9204

The paper assesses the levels and determinants of economic inequality in twelve Arab countries using harmonized household survey micro-data. It focuses on the sources of rural-urban, as well as metropolitan-nonmetropolitan, inequalities and applies the unconditional quantile regression decomposition technique to analyze the welfare gaps across the entire distribution. The analysis finds moderate inequality levels, with Gini coefficient for the distribution of household real per capita total expenditures ranging between 30.7 in Libya and 45 in Mauritania. Differences in households endowments such as demographic composition, human capital and community characteristics appear as the main sources of the urbanrural welfare gap. Inequality between metropolitan and non-metropolitan regions is resulting, in many countries, mainly from differences in returns to households characteristics and particularly returns to human capital.

JEL codes: D31; C15; O18

Link to the PDF file

#### **Understanding the Dynamics of Labor Income Inequality in Latin America**

Carlos Rodriguez-Castelan, Luis F. Lopez-Calva, Nora Lustig, Daniel Valderrama Session 6.7 Room 9205

Since the early 2000s, after a long period of wide and persistent gaps, Latin America has experienced a steady decline in income inequality. This paper presents evidence of a trend reversal in labor income inequality, which is considered the main factor behind such a decline in income inequality across the region. The analysis shows that, while labor income inequality increased during the 1990s, with heterogeneous experiences across countries, it fell in a synchronized way across countries beginning in the early 2000s. This systematic decline was supported by an expansion in real hourly earnings among the bottom of the wage distribution and, to a lesser extent, the middle part of the earnings distribution, thus reducing upper and lower tail inequality. This trend reversal is explained by a lower dispersion of earnings among workers with observable different attributes and by a much less extensive dispersion of residual labor inequality. Regarding the earnings differentials among workers with observable different attributes, the analysis concludes that the decline in labor inequality in Latin America has been closely associated with a reduction in the college/primary education premium and in the urban-rural earnings gap, coupled with a steady drop in the high school/primary education premium, which accelerated markedly since the 2000s, as well as a reduction in the experience

premium across all age groups. JEL codes: D63, E24, J31

Link to the PDF file

#### Educational Inequality and Intergenerational Mobility in Latin America: A New Database

Guido Neidhoefer, Joaquin Serrano, Leonardo Gasparini Session 6.7 Room 9205

Causes and consequences of the intergenerational persistence of inequality are a topic of great interest among different fields in economics. However, issues of data availability have restricted a broader and cross-national perspective on the topic so far. Based on rich sets of harmonized household survey data, we contribute to fill this gap providing time series for several indexes of relative and absolute intergenerational education mobility for 18 Latin American countries over 50 years. In this paper, we introduce this new database and describe the observed patterns. We find that on average intergenerational mobility has been rising in Latin America. This pattern seems to be driven by high upward mobility of children from low-educated families, while there is substantial immobility at the top of the distribution. Significant cross-country differences can be observed which are associated with the degree of income inequality, poverty, economic growth, public educational expenditures and assortative mating.

JEL: D63, I24, J62.

Link to the PDF file

## Visible consumption, income inequality and the and the role of reference groups. Evidence from four Latin American countries

Andrea Vigorito, Martin Leites, Rodrigo Gorga Session 6.7 Room 9205

The aim of this paper is to analyze the empirical determinants of the consumption of visible goods, assessing the role of reference groups and emulative behaviour. In Veblen's seminal work, conspicuous consumption it is highly motivated by the search of economic and social status. Recent research on visible goods points out the fact that in many cases the more deprived populational groups are more exposed to these behaviours (Charles et al, 2009; Chai and Kaus, 2012), and highlight the role reference groups. Using national income and expenditure surveys micro-data, we study the cases of Argentina, Brazil, Mexico and Uruguay. To measure visible goods consumption, we consider the aggregate sum of personal care, clothing and footwear, jewelry and watches, and cars. We estimate Engel curves including demographic and socio-economic variables and different specifications on the reference group, in terms of average income and inequality, considering synthetic indicators and asymmetries with respect to the group mean. Reference groups are defined on the basis of regional variables, age group and schooling of the household head. We instrument permanent income and reference group variables. We find that expenditure in visible goods has a strong association with total per capita expenditure, sex of the household head and regional variables. Social interactions also have a strong effect, although their magnitudes and signification highly depend on the modelization. The mean reference group income presents a negative sign, consistent with the positional consumption hypothesis for the cases of Brazil, Argentina and Uruguay Intra group inequality effects are ambiguous and vary between countries. However, the income gap with respect to the reference group average shows consistent results for the four countries: a higher relative income turns out into higher visible goods consumption. JEL: D12, D31

Link to the PDF file

## Varieties of capitalism (VoC) and varieties of distributions (VoD): How welfare regimes affect the pre- and post-transfer shapes of inequalities?

Louis Chauvel, Eyal Bar-haim *Session 6.8 Room 9206* 

In comparative analysis, we know that shapes of income distribution are variable and broadly related to types of welfare capital-

ism. Here, we expand on the socio-economic regimes literature and show almost perfect similarity between varieties of capitalism (VoC) and varieties of distributions (VoD). Utilising a new tool for income analysis, the isograph, and when we consider three stages of distributions by country-period: initial income (prior to taxes and redistributions), actual income (equivalized disposable of incomes) and the shape of effort between, the empirical clustering of countries are strongly related to what is theoretically known of welfare capitalism. We extend this relation to over 30 countries and then compare transformations over time. We specifically detect, in particular in the lower percentiles of Nordic countries, but in other countries too, an increasing problem of massive inequality of the initial: a strong decline of market incomes at the bottom of the distribution is balanced by more generous transfers.

JEL codes: D31, C46

Link to the PDF file

## Middle-class and structural transformation: Exploring three dimensions of the middle-class in middle-income countries.

Razafimandimby Andrianjaka Riana Session 6.8 Room 9206

The impact of the expansion of the middle-class in developing countries has been widely investigated over the recent years. The middle class is generally apprehended by its single demographic size, which, we believe, may hide crucial features and differences across nations because the composition of this middle class is not considered. This paper aims at investigating the composition of the middle class by computing various statistical features of the distribution of income and of consumption within the middle class: the incidence, the depth and the heterogeneity of the middle-class for a panel of 121 countries from 1985 to 2012. By combining these statistical features, we could identify seven configurations namely a middle-class that is 1) large but neither deep nor egalitarian; 2) deep but neither large nor egalitarian; 3) egalitarian but neither large nor deep; 4) large and deep but not egalitarian; 5) large and egalitarian but not deep; 7) large, deep and egalitarian; 8) neither large, nor deep and egalitarian. As well, we identify four sub-categories of middle-class based on the household consumption/income per day: the floating class in the interval [2;4]; the lower middle-class [4;10]; the upper middle-class [10;20], and the higher middle-class [20; 100]. A reduced unbalanced dataset of 50 middle-income countries is used to test empirically the impact of the composition of the middle-class on structural change by using two-step system GMM estimator. Our results confirm that the size of a unique middle-class alone is not enough to comprehend the complex mechanisms through which the expansion of middle-class impacts directly on growth or indirectly via structural transformation. A large, equal and richer middle-class is more likely to have greater impacts. However, the middle-class structure matters since floating and lower middle-classes support the less productive and modern sector. On the other hand, wide upper and higher middle-classes are drivers of productive changes since they support manufacturing and modernization as well as reducing the part of non-modern activities.

JEL codes:O11,O14, O15

Link to the PDF file

## Economic Issues are Moral Issues: The Moral Underpinnings of Attitudes towards Wealth Inequality

Andrew Franks, Kyle Scherr Session 6.8 Room 9206

Economic inequality is a pervasive and growing source of social problems such as poor health, crime, psychological disorders, and lack of trust in others. Prior research has demonstrated that U.S. citizens across the political spectrum both under-perceive

and lack of trust in others. Prior research has demonstrated that U.S. citizens across the political spectrum both under-perceive the extent of economic inequality and would prefer to live in a society with much less inequality than both exists in reality and in their subjective estimations. For this reason, it is important to identify factors that may influence attitudes towards wealth redistribution. Across 3 studies, we examined the ability of various moral foundations to predict attitudes towards economic inequality, while also replicating the prior research results showing widespread desire for a more equal society. It was found that a moral concern with fairness was consistently associated with greater desire to redistribute wealth and income, while moral concern with maintaining purity was nearly as consistently associated with less desire to redistribute wealth.

JEL codes: CE

Link to the PDF file

## Societal Poverty: A Relative and Relevant Measure

Dean Jolliffe, Espen Beer Prydz Session 6.9 Room C202

Poverty lines are typically higher in richer countries, and lower in poorer ones, reflecting the relative nature of national assessments of who is considered poor. In many high-income countries, poverty lines are explicitly relative, set as a share of mean or median income. Despite systematic variation in how countries define poverty, global poverty counts are based on a fixed-value line. To better reflect national assessments of poverty in a global headcount of poverty, this paper proposes a societal poverty line (SPL). Our preferred SPL is derived from 699 harmonized national poverty lines and has an intercept of per day and a relative gradient of 50 percent of median national income or consumption. The SPL is more closely aligned with national definitions of poverty than other proposed relative lines. By this relative measure, societal poverty has fallen steadily since 1990, but at a much slower pace than absolute extreme poverty.

JEL codes: I3, I30, I32

Link to the PDF file

## Some are more equal than others: new estimates of global and regional inequality

Zsolt Darvas

Session 6.9 Room C202

We test the accuracy of four methodologies to estimate the global distribution of income using within-country data from the United States, Australia, Canada and Turkey to estimate the country-level Gini coefficient, and using different levels of detail about quantile income shares of European countries. The two-parameter distribution and the Lorenz-curve regression methods are the most accurate, while the identical quantile income share and the Kernel density methods are less robust. We propose a new technique to estimate the standard error of the global Gini coefficient. Our results show that global income inequality among the citizens of 128 countries gradually declined in 1989-2013, largely due to convergence of income per capita, which was offset by a small degree the increase in within-country inequalities. In Asia, regional inequality has increased recent years, while it declined in other main world regions. The standard error of the global Gini coefficient is very small.

JEL codes: C63, D31, O15

Link to the PDF file

## Income and Consumption Inequality in the Philippines: A Stochastic Dominance Analysis of Household Unit Records

Maria Rebecca Valenzuela, Wing-Keung Wong, Zhu Zhen Zhen Session 7.1 Room 9207

New stochastic dominance (SD) tests of richness and poorness are applied to income and expenditure distributions in the Philippines to measure relative welfare levels and investigate sources of inequality from 2000 to 2012. We successfully demonstrate that welfare analyses based on ascending and descending SD principles offer a stronger characterization of changing levels of welfare in a population, than what could be obtained using standard SD approach alone. Empirically, our results show that large improvements in relative welfare levels over time in the Philippines favoured older and female-headed households, mainly in the urban areas. Further, female headship and more years in education promoted higher welfare within and amongst the population groups. On the other hand, the receipt of remittance incomes may have caused the greater imbalance in the distributions found in more recent years. Analysis by age groups meanwhile showed that over time, there are increasing concentrations of poorer households amongst the youngest cohort (30 and under), at the same time that there are also increasing concentrations of richer households among the over 60s. The combined impact of these factors provide a viable explanation as to why the gap between the rich and the poor have remained high in the Philippines for a very long time now.

JEL Codes: I32, J11 and J14

Link to the PDF file

## On Shrinking the Planners Choice Set in Multiple Wellbeing Comparisons

Gordon Anderson, Thierry Post Session 7.1 Room 9207

Behind a Veil of Ignorance, the Social Planners problem of choosing from a collection of diverse wellbeing distributions is akin to a problem of individual decision making under uncertainty. This interpretation provides a rationale for applying the concept of Stochastic Dominance Optimality in wellbeing analysis to detect the distributions with the highest levels of shared prosperity. A complementary concept of Stochastic Dominance Inferiority can be used to detect distributions with the greatest potential for poverty reduction. Linear Programming problems for implementing these twin concepts are derived from the first principles of Expected Utility. Empirical examples using aggregated distributions of income and wealth demonstrate the potential improvement upon the discriminatory power of multiple pairwise comparisons in the face of unbalanced economic growth.

JEL codes: C1, D3, I3

Link to the PDF file

#### **Almost Lorenz Dominance**

Buhong Zheng Session 7.1 Room 9207

This paper extends Leshno and Levys (2002) approach of almost stochastic dominance to inequality measurement and inequality orderings. We define and characterize the notion of almost Lorenz dominance(ALD) and apply it to the US income data. An income distribution almost Lorenz dominates another distribution when the Lorenz curve of the distribution lies almost everywhere but not entirely above the other Lorenz curve. We show that this condition is equivalent to requiring that almost all Gini type inequality measures rank the former distribution to have less inequality than the latter distribution. We further define an almost composite transfer (ACT) and show that ALD is equivalent to a sequential application of such transfers. The empirical application to the US income data (1967-1986) demonstrates the utility of this generalized notion of inequality ordering. JEL codes: D63

Link to the PDF file

## **Inequality in India: Life Chances and Caste Maters**

Omkar Joshi

Session 7.2 Room C204

The question of inequality, its determinants and the consequences of inequality has been one of the central areas of research in developmental economics and sociology. There are hardly any sociological studies looking at the question of income inequality within the developing country context and those who study this question in a developing country context, study it from the macro perspective of global inequality and world systems approach. This paper is a contribution in the area of inequality in a developing country context. Using a large-scale nationally representative household survey- India Human Development Survey (IHDS)- for 2004-05 and 2011-12, I look at the extent of inequality with respect to caste in India. I find that over a period, inequality has risen marginally. However, between-caste inequality is going down and within-caste inequality is rising.

JEL Codes: D63; J15

Link to the PDF file

## Capital and the Hindu rate of growth: Wealth concentration in newly independent India 1961-1986

Rishabh Kumar

Session 7.2 Room C204

This paper tries to understand the dynamics of wealth concentration in India - a topic about which the literature is particularly silent. By combining statistics from the 1953-1986 estate tax with mortality tables for persons who bought life insurance con-

tracts, I build the first top wealth-holder series for India over the oft-cited low (Hindu) growth era of Indian economic history. Results show that a combination of policies and shocks significantly depressed the wealth of the Top 0.1% with a particularly stark fall in the value of assets invested in land and the emergence of movable wealth as a resilient component of the average portfolio. At the same time, disparity within the elite reacted inversely to state regulation of private investment. In comparative terms while the experience of newly independent India is similar to that observed in France and the US at the turn of the 20th Century, the importance of the elite fell at a much faster rate. These findings have implications for the equalizing forces inherent in progressive tax policy vis-a-vis the incumbent rich and the role of the state in regulating capital in poor nations.

JEL Codes: H1, N3, O1

Link to the PDF file

#### **Nutrient Consumption in India: Evidence from a Village Study**

Indranil Dutta, Shruti Kapoor, Prasanta Pattanaik Session 7.2 Room C204

Adequate nutrition is one of the basic requirements for survival and is generally regarded as a core dimension in any evaluation of living standards. Studies of nutrition, however, often focus on calorie consumption. Using information on food consumption from primary data, we constructed the nutrient consumption in the village for five key nutrients of Calories, Proteins, Carbohydrate, Calcium and Iron. Unlike the literature, we find that the expenditure elasticity of nutrient consumption is substantial. We also find the PDS system has a significant impact on nutrition. Contrary to general expectations female headed households did much better than male headed households in terms of nutrient consumption. In terms of deprivation, our study shows that while for Calorie Protein and Iron the incidence of nutrition deprivation is around 37 percentage, for Calcium it increases to over 80 percentage. There is no deprivation in terms of Carbohydrate.

Link to the PDF file

#### Inverse fair taxation: What do we compensate for in Europe and the United States?

Erwin Ooghe, Andreas Peichl Session 7.3 Room C415A

In this paper we bring together the inverse optimal tax literature and the fairness literature. We invert a fair tax formula and apply it to tax- benefit schemes in Europe and the United States to estimate the implicit degree of compensation for each factor that determines individual well-being.

JEL codes: D6, H2, I3

Link to the PDF file

## (Un)fair tax-benefit systems: Evidence from selected OECD countries

Francois Maniquet, Dirk Neumann Session 7.3 Room C415A

Building on the theory of fair labor income taxation recently developed by Fleurbaey and Maniquet, we assess (un)fairness of tax schemes in a selected sample of OECD countries. We begin by presenting the justification and construction of Equal Minimal Well-Being curves, the key ingredient to measure social welfare in this theory. Equipped with this tool, we propose two applications. First, for each country in our sample, we identify the interval of earning levels at which tax schemes need to be reformed to enhance social welfare. Second, we compare social welfare among countries. In both applications, we determine how the conclusions depend on the values of three key ethical parameters.

JEL Classification: H21, D63.

Link to the PDF file

#### Fair sharing of an international river

Emel Ozturk

Session 7.3 Room C415A

Conflicts over international rivers are common. They arise mostly because property rights over rivers are not well-defined. Several principles of international law based on different conceptions of property rights have been proposed to resolve such conflicts. We propose a way to formalize three of those principles, absolute territorial sovereignty (ATS), unlimited territorial integrity (UTI) and territorial integration of all basin states (TIBS). We show that fairness and efficiency require the choice of territorial integration of all basin states over the other two. Focusing on TIBS, we propose two criteria for the evaluation of river water allocations.

JEL codes: D62, C71

Link to the PDF file

#### The Distribution Of The Growth Dividends

Mikkel Hermansen, Orsetta Causa, Nicolas Ruiz Session 7.4 Room C203

Widespread increases in inequality over the past three decades have raised the question of the distribution of the growth dividends. This paper finds that there is no single answer to this question. The mechanisms that link growth and income inequality are found to differ depending on the sources of growth and on whether one considers income inequality before or after government redistribution, that is, inequality in market incomes, i.e. income derived before taxes and transfers, or inequality in disposable incomes, that is, income after taxes and transfers. Labour productivity growth is found to have contributed to rising market income inequality, while this was partly mitigated through government redistribution, on average across OECD countries over the last decades. By contrast, employment growth is found to have had an equalising impact, benefiting mostly the households in the lower part of the income distribution. These two forces tended to offset each other and resulted in a broadly distribution-neutral impact of GDP per capita growth, on average across OECD countries over the last three decades. While inequality has risen in many countries, this would tend to suggest that factors other than GDP growth itself have been driving widening income gaps between rich and poor households.

JEL codes: O15; O47; D31; H23

Link to the PDF file

#### The Quest for Pro-poor and Inclusive Growth: The Role of Governance

Djeneba Doumbia Session 7.4 Room C203

This paper analyzes the role of good governance in fostering pro-poor and inclusive growth. Using a sample of 112 countries over the period 1975-2012, the main results show that growth is in general pro-poor. However, growth has not been inclusive as illustrated by a decline in the bottom quintile share of the income distribution. While all features of good governance support income growth and reduce poverty, only government effectiveness and the rule of law are found to enhance inclusive growth. Investigating the determinants of propoor and inclusive growth highlights that education strategies, infrastructure improvement and financial development are the key factors for poverty reduction and inclusive growth. Relying on the Panel Smooth Transition Regression (PSTR) model following Gonzalez et al. (2005), the paper identifies a nonlinear relationship between governance and pro-poor growth while the impact of governance on inclusive growth appears to be linear.

JEL codes: C23, H5, O11

Link to the PDF file

### Growth and Poverty Revisited from a Multidimensional Perspective

Maria Emma Santos, Carlos Dabus, Fernando Delbianco Session 7.4 Room C203

The actual impact of economic growth on poverty reduction is of fundamental importance to the development agenda, especially in view of the Sustainable Development Goals. So far, studies have focused on income poverty. This paper offers new empirical evidence on growth and poverty measured from a multidimensional perspective using the global Multidimensional Poverty Index. Results from a first difference estimator model suggest that while economic growth reduces multidimensional poverty, this impact is well below a one-to-one relationship. We also find that economic growth has a far bigger impact on reducing income poverty than on reducing multidimensional poverty. Results from an alternative cross-section model also support this result and additionally suggest that countries with higher levels of exports, a higher share of industry and services in their GDPs, and higher control of corruption have lower multidimensional poverty. All in all, the results highlight the need for countries to grow in order to reduce poverty, but they simultaneously suggest the limited power of economic growth per se to achieve grand reductions in poverty.

JEL: D31, I32, O15, O54

Link to the PDF file

#### THE EURO AREA WAGE DISTRIBUTION OVER THE CRISIS

Andrea Brandolini, Alfonso Rosolia Session 7.5 Room C198

We provide novel evidence on the adjustment of the EA labour markets during the recent economic crisis by investigating the evolution of the wage distribution in the EA as a whole. This analysis supplements existing studies focusing on labour force participation by considering the adjustment occurring through prices rather than quantities. The evidence presented in this chapter suggests a perceptible wage response, calling for some qualification of the widely held view of downward wage rigidity in many EA labour markets. In a monetary union, internal devaluations aimed at recovering competitiveness add a further dimension to the adjustment, as different wage responses across countries entail that national boundaries matter for the whole earnings distribution. In a fully integrated EA labour market, there would be no country effect in the explanation of the overall earning distribution, except for the indirect effects due to differences in the sectoral, demographic and skill composition. Abandoning the customary approach of comparing national developments and looking instead at the EA as a whole allow us to see countries simply as an additional dimension of the heterogeneity shaping the overall wage distribution. It implies a fundamental change of perspective, but one that should be natural in studying a monetary union.

JEL codes: J3, I3, E00

Link to the PDF file

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

Gerlinde Verbist, Francesca Zantomio, Francesco Figari Session 7.5 Room C198

Western countries income tax system exempts imputed rent, i.e. the return from investing in owner-occupied housing, thus entailing a lack of neutrality with respect to other forms of capital investment. Despite a long-standing endorsement of removing this homeownership bias, lack of updated comparative evidence on its size, in relation to existing property taxes on owner-occupied housing, and their joint distributional effect, is hampering the current policy debate. This paper first offers up-to-date aggregate and distributional measures of the homeownership bias arising from the income tax rules prevalent in eight European countries, observed after the onset of the recent crisis. Second, it provides novel evidence on the extent to which lack of neutrality is mitigated by recurrent property taxation of owner-occupied housing assessing the joint distributive effects of income and property taxes. The analysis is based on data drawn from Survey of Income and Living Conditions and UK Family Resources Survey and makes use of the multi-country tax benefit model EUROMOD. Results show that a sizeable bias in favour of homeowners is indeed embedded in current income tax systems, and that property taxation represents only a partial correction to this bias. Moreover, this bias is not the same across the income distribution. Such evidence appears valuable in informing the policy debate on the search for new sources of tax revenues, and in particular for those less detrimental to growth and equity.

JEL-codes D31, H23, I31

Link to the PDF file

### Labour outcomes and family background: Evidence from the EU during the recession

Silvia Avram, Olga Canto Session 7.5 Room C198

A large body of literature in economics aims to understand the transmission mechanisms through which intergenerational economic and social advantage persists. Evidence shows that individuals born into low socioeconomic status families tend to experience worse labour outcomes when adults than otherwise similar peers. Recessions, however, may have a significant impact on how certain elements of this transmission process operate in some countries but not in others (e.g. due to diverse changes in returns to education or occupation and the role of family networks). Using EU-SILC data for 2005 and 2011 we compare the dfferent role of family background on labour outcomes in five EU countries before and after the Great Recession using a multidimensional family background indicator, that avoids undesirable cohort effects. Our results suggest that family background affects employment prospects and job quality (wages and being on a temporary contract) beyond its effect on education but we do not find significant evidence that this effect is substantially moderated by the economic cycle.

JEL Classification: I24, I26, J31

Link to the PDF file

## Reducing Poverty and Inequality through Tax-Benefit Reform and the Minimum Wage: The UK as a Case-Study

Anthony B. Atkinson, Chrysa Leventi, Brian Nolan, Holly Sutherland, Iva V. Tasseva Session 7.6 Room 9204

Atkinsons book Inequality: What Can Be Done? (Harvard University Press, 2015) sets out a range of concrete proposals aimed at reducing income inequality, which cover a very broad span but include major changes to the income tax and social transfers system and the minimum wage. These are framed with specific reference to the UK but have much broader relevance in demonstrating how substantial the impact on inequality of such measures could be. This paper assesses the first-round effects of these tax, transfer and minimum wage reforms on income inequality and poverty based on a microsimulation approach using EUROMOD. The reforms involve a significantly more progressive income tax structure, a major increase in the minimum wage to the level which is estimated to represent the Living Wage, and alternative routes to reforming social transfers either to strengthen the social insurance element or to restructure the entire system as a Participation Income (a variant of Basic/Citizens Income). The results show how the first-round effects of either set of tax and transfer proposals would be to substantially reduce the extent of income inequality and relative income poverty and the paper draws out how the two approaches differ in their effects. The additional impact of raising the minimum wage to the Living Wage is modest, reflecting in particular the position of beneficiaries in the household income distribution and the offsetting effects on household income of the withdrawal of means-tested cash transfers.

JEL codes: D31 H24 I38

Link to the PDF file

## The take-up of welfare benefits: combining a static and dynamic perspective

Tuuli Paukkeri

Session 7.6 Room 9204

Incomplete take-up is a common phenomenon across various social benefit programs. Understanding why eligible individuals do not claim their benefits can help in the design of efficient public programs. In this paper I use unique and detailed data from Finland to provide new stylised facts on the take-up of welfare benefits. I extend the standard static framework by taking eligible households' income dynamics into account. I find that eligibility to the benefits is concentrated among the worst-off households,

but that eligible households who do not take up the benefits are experiencing only a short-term fall in income, from which they recover shortly afterwards. On the contrary, households who claim benefits typically have permanently low income. The findings are consistent with households reacting to the benefit schemes in a rational manner, weighting expected benefits to take-up costs. Take-up costs thus do matter, but do not seem to screen out the most needy families.

JEL codes: I38, D31, H53

Link to the PDF file

#### The take-up of welfare benefits and the relevance of correcting survey data

Kerstin Bruckmeier, Regina T. Riphahn, Jürgen Wiemers Session 7.6 Room 9204

The international literature studies take-up behavior of the eligible population in order to evaluate the effectiveness of government programs. A major challenge in this literature is measurement error regarding take-up behavior. Measurement error is typically addressed by structural assumptions in the modelling framework. In our data, we observe both, actual welfare receipt and respondents' survey information on their take-up. This allows us to observe measurement errors that other researchers have to estimate. We investigate how survey misreporting biases the estimates of the magnitude and patterns of benefit take-up. The findings suggest that the extent of measurement error can be substantial. It varies with the characteristics of the misreporting population and is associated with the drivers of underreporting.

Link to the PDF file

### Vulnerability to Poverty: Tajikistan during and after the Global Financial Crisis

Ira Gang, Kseniia Gatskova, John Landon-Lane, Myeong-Su Yun Session 7.7 Room 9205

We examine vulnerability to poverty in Tajikistan during the global financial crisis, focusing on the roles played by international migration and remittances, using a formal, practical, and easily decomposable vulnerability measure. Our strategy is to estimate a Markov transition probability matrix with the aim of identifying the vulnerability of households to poverty. Importantly, by introducing the index of vulnerability as the weighted probability of a household falling into poverty over a given time horizon, we can use the estimated dynamics to assess the short, medium and long-run vulnerability. We find that during the recession transition almost all households were vulnerable to poverty while almost none were during the recovery period. Overall, urban households, more educated households and households receiving remittances from international labor migrants were less vulnerable to poverty. While households with a current or very recent migrant did not have a significantly lower measured vulnerability to poverty, those households receiving remittances from migrants had a lower vulnerability to poverty. Our findings stress that the international labor migration from Tajikistan may not be considered as a reliable means of welfare security for the households because external economic shocks and internal political decisions may negatively affect Russian economy and lead to a reduction of remittances flow to Tajikistan.

JEL codes: J60, D63, I32

Link to the PDF file

#### **Poverty in times of crisis**

Alexander Ahammer, Stefan Kranzinger Session 7.7 Room 9205

This paper evaluates the impact of a large macroeconomic shock on poverty. In particular, we use longitudinal data from the European Survey on Income and Living Conditions (EU-SILC) comprising over 1.9 million individuals from 29 European countries in order to quantify changes in poverty transition patterns induced by the 2007 global financial crisis. Because the crisis was largely unforeseeable, it provides an appealing natural experiment allowing us to isolate the causal effect of a substantial macroeconomic shock on poverty. Employing semiparametric mixed discrete time survival analysis, we find that both entry and

exit hazards have decreased due to the crisis. Comparing to pre-crisis figures, conditional entry hazards have decreased by an estimated 15.7%, while conditional exit hazards have decreased by 31.4% due to the crisis. Thus, while the risk of slipping into poverty has decreased, ceteris paribus, those who are already poor face substantially lower chances to exit after the crisis. Exploring determinants of poverty transitions, we find that being retired, having a permanent job, owning ones dwelling instead of renting it, age, marital status, and household size are the most important protective factors against poverty. Finally, we show that a housing cost overburden seems to be important in explaining the observed increase in the persistence of poverty.

JEL Classification: I32, D31

Link to the PDF file

## Mobility into and out of poverty in Europe in good and bad times: The role of income, demographic and labour market events

Eirini Andriopoulou, Panos Tsakloglou Session 7.7 Room 9205

In this paper, we analyze poverty dynamics in 29 European countries separately for years with positive and negative growth rates, using the data of the European Union Statistics on Income and Living Conditions (EU-SILC) for the period 2005-2013. The duration and the severity of the crisis was not the same in all EU member-states. Correspondingly, the time-frames used for the identification of the crisis period (years with negative growth rates) differ across countries. The study first focuses on the trigger events (income, demographic, labour market) associated with movements into and out of poverty, using a modified version of the Bane and Ellwood (1986) framework of event analysis. Then, multivariate logit analysis is employed in order to identify the socioeconomic factors that are associated with the transitions into and out of poverty. Differences and similarities are identified both within countries in good and bad periods and across countries.

The results show that substantial cross-country differences can be observed when the events associated with poverty exits and entries are examined in detail with the event and multivariate logit analysis, reflecting the different importance of the various household income components, as well as the different effect that the demographic changes have to transitions into and out of poverty in each country. The general patterns that can be observed are five: (a) In both sub-periods (good and bad times), income events and especially changes in heads labor earnings seem to be highly associated with poverty transitions in all countries, but more so in the countries hit stronger by the crisis; (b) Demographic events are relatively rare but their impact on poverty transitions appears to be very strong; (c) Employment events are more important for ending a poverty spell than unemployment events for starting a poverty spell, especially in bad periods, perhaps due to the dampening effects of welfare state policies; (d) The importance of second income earners (finding a job or increasing earnings) for bringing the household out of poverty was established for both good and bad times; (e) The socioeconomic characteristics of the household and the household head present a rather similar pattern across countries in both sub-periods.

The attached paper is an earlier version of the paper. We are currently working on a substantially revised version, entitled Mobility into and out of poverty in Europe in good and bad times: The role of income, demographic and labour market events. In the new version we modify the rationale of the paper and carry out the analysis separately for growth and recession periods, for each of the 29 countries covered in the paper. Thus, we are able to identify similarities and differences associated with poverty entries and exits in different economic circumstances (using both an accounting Bane and Ellwood framework and estimating probability models) both within and across countries. For the purposes of the Bane and Ellwood analysis, we focus on income changes in relative terms (in comparison to the mean of the corresponding distributions) rather than absolute income changes. Moreover, in order to classify a crossing of the poverty line as a transition into or out of poverty we adopt a stricter criterion than in the attached paper (crossing of the poverty line and change in relative equivalized income of at least +/-10%), while the econometric results are reported as marginal effects (rather than odds ratios or simple coefficients) results available on request. We are currently experimenting with the inclusion of lagged poverty and/or unemployment in the explanatory variables. The new version of the paper is expected to be ready within the next two months.

JEL Classification: 132

Link to the PDF file

Love and money with inheritance: marital sorting between labor income and inherited wealth in the modern partnership

Etienne Pasteau, Junyi Zhu

Session 7.8 Room 9206

As the capital is regaining the importance in rich countries (Piketty and Zucman 2014), dynamics of wealth inequalities are affected more by the inheritance distribution. The relative attraction derived from inherited wealth and acquired human capital in marital choices may be undergoing a change. We expand the traditional dimension of assortative mating through only labor income to both labor income and inheritance as Frémeaux (2014) accomplished. This paper studies the concentration and substitutability of these two traits in forming partnership using Panel on Household Finance (PHF) data for Germany. Since WWII, relative to France, German aristocratic wealth has been more negatively impacted, less social stratification has been developed and half of the country went through decades of communism. However, our results quantitatively resemble to the distributional outcomes from France. By assuming a sequential revelation of inheritance and labor income in marital sorting, we develop a stylized multidimensional matching model which perfectly replicates the sorting pattern observed using marginal distributions of these two traits from either gender. Our estimate suggests inheritance accounts for three times more than labor income in marriage choice.

Link to the PDF file

## Watching in your partners pocket before saying 'Yes'! Assortative mating and income inequality

Carlo Fiorio, Stefano Verzillo Session 7.8 Room 9206

Standard measures of assortative mating by income levels of spouses at the year of wedding are flawed by endogeneity issues. By using a unique administrative data on a large region in Italy we provide the first measure of assortative mating on labor income levels. The administrative nature of our data (tax records) and the modeling choice based on percentile groups reduce measurement error to the minimum. The availability of labor income for both spouses up to three years before wedding is used to account for the simultaneity bias. Results provide evidence that top income women are much more likely to get married to top income men. In particular, 13% of women belonging to the top 1% of their income distribution get married to a man belonging to the top 1% of grooms income distribution. Counterfactual analysis on the effect of assortative mating by income levels on income inequality suggests that if love was the unique driver of marriage and falling in love was a randomly allocated event, the distribution of family income could largely vary, even reducing the Gini index by half.

JEL codes: J12,J41

Link to the PDF file

## Understanding Intergenerational Transmission of Poverty in Spain: Education and Marital Sorting Maria A. Davia, Nuria Legazpe

g : 70 p 0200

Session 7.8 Room 9206

This paper contributes to the literature on the determinants of intergenerational transmission of poverty (ITP) in Spain by exploring how this phenomenon is shaped by education and marital homogamy. To that aim a set of univariate, bivariate and trivariate ordered probit models are estimated on a sample of Spanish-born partnered individuals from the module on intergenerational transmission of disadvantages in the Spanish Survey on Living Conditions 2011. We split the sample in two age groups (below and above 45 year-olds). Our results show that (a) the ITP is more intensive amongst under 45 year-olds despite the higher educational mobility they have experienced, probably because many of them are in the early stages of their careers; (b) in the younger group homogamy has a more relevant impact on the transmission of social disadvantage than in the elder one; (c) the dependence of the economic strains in the parental household is more genuine in the elder age group.

JEL codes: I32

Link to the PDF file

#### The Effects of Education on Income Inequality in Latin America

Claudia Samano Robles

Session 7.9 Room C202

This paper examines the effects of education on income inequality in 18 Latin American countries for the period between 2000 and 2010. This period has raised interest in the academic community because inequality has improved across the region, after several years of relative null improvement or constant worsening conditions. Employing the novel technique proposed by Firpo et al. (2007) my research provides a detailed decomposition of inequality factors using quantiles as the main statistic of interest. Three mayor findings emerge from my results: First, education increases inequality in six countries in the sample and decreases inequality in four countries. Second, the changes in returns to education are the driving component of the effects of education on inequality. The returns to education declined from 2000 to 2010 in most of the countries at the top quantiles of the income distribution. The decline in returns to education contributes to the inequality decreasing effect of education in seven countries. Third, the expansion of education has an inequality increasing effect in the majority of the countries under analysis, confirming the presence of the "paradox of progress" in the region.

JEL classification: I24,I25

Link to the PDF file

## University supply expansion and Inequality of Opportunity of access. The case of Uruguay.

Luciana Mendez Session 7.9 Room C202

This paper examines whether opportunity of access to public university has improved over the period 2008 to 2013, in which an important territorial expansion of the public university took place. For this purpose, an opportunity index for access to university for 2008 and 2013 is elaborated; which combines in a single measure coverage to a certain opportunity (access to university), and the distribution of access between different groups of population conditional on their circumstances (a measure of inequality of opportunity). Results point to an increase in the index of opportunity of access to the university over the period under study. However, as the coverage rate of access disproportionally increased more to those people belonging to more favorable backgrounds, in comparison to those from worse-off family backgrounds, inequality of opportunity in access to university worsens over the period.

JEL codes: I23,I24

Link to the PDF file

### Measurement of equality of opportunity: A normative approach

Kristof Bosmans, Z. Emel Öztürk Session 8.1 Room 9207

We develop a normative approach to the measurement of equality of opportunity. That is, we measure inequality of opportunity by the welfare gain obtained in moving from the actual income distribution to the optimal income distribution of the total available income. Our study brings together the main approaches in the literature: we axiomatically characterize social welfare functions, we obtain prominent allocation rules as their optima, and we derive familiar classes of inequality of opportunity measures. Our analysis captures moreover the key philosophical distinctions in the literature: ex post versus ex ante compensation, and liberal versus utilitarian reward.

JEL classification: D31; D63

Link to the PDF file

#### **Equality of Opportunity for Well-Being**

Daniel Mahler, Xavier Ramos Session 8.1 Room 9207

A growing literature has tried to measure the extent to which individuals have equal opportunities to acquire income. At the same

time, policy makers have doubled down on efforts to go beyond income when measuring well-being. We attempt to bridge these two areas by measuring the extent to which individuals have equal opportunities to achieve a high level of well-being. We use the German Socio-Economic Panel to measure well-being in four different ways including using incomes. This makes it possible to determine if the way well-being is measured matters for identifying who the opportunity deprived are and for tracking inequality of opportunity over time. Regardless of how well-being is measured, we find that the same people are opportunity deprived, and that equality of opportunity has improved over the past 20 years. This suggests that going beyond income has little relevance if the objective is to provide equal opportunities.

JEL codes: D3, D63, I31

Link to the PDF file

### **Responsibility-sensitive social welfare function**

Jun Matsui Session 8.1 Room 9207

For the fair redistribution, we investigate the notion of the responsibility-sensitive social welfare function, which respects the personal responsibility for the efforts. We prove that it requires preference domain be restricted to the additively separable exponential utility function.

JEL codes: D63

Link to the PDF file

## Wealth Accumulation, On the Job Search, and Inequality

Gaston Chaumont, Shouyong Shi Session 8.2 Room C204

To study equilibrium interactions between wealth accumulation and labor market search, this paper constructs a model where individuals can accumulate non-contingent assets under a borrowing limit, all workers can search for jobs, and search is directed. On-the-job search generates a wage ladder, which affects inequalities in earnings, wealth and consumption. Employed workers have incentive to save as a precaution for exogenous separation into unemployment. In the reverse direction, wealth and earnings affect search decisions by changing the optimal tradeoff between the wage and the matching probability. The calibrated model reveals that wealth significantly reduces a worker's transition rates from unemployment to employment and from one job to another. Moreover, search frictions increase wealth inequality significantly by increasing the mass of wealthy individuals and lengthening the right tail of the wealth distribution. However, the effect of wealth on job search widens frictional wage dispersion by only a small amount. In addition, on-the-job search is important for frictional wage dispersion.

JEL classifications: E21; E24; J60.

Link to the PDF file

### **Inequality in 3-D: Income, Consumption, and Wealth**

Jonathan Fisher, David Johnson, Timothy Smeeding, Jeffrey Thompson *Session 8.2 Room C204* 

We are the first to study inequality in three conjoint dimensions, and to do so we use income, consumption, and net wealth from the 1989-2013 Surveys of Consumer Finance (SCF). The paper focuses on two questions. What does inequality in two and three dimensions look like? Has inequality in multiple dimensions increased by less, by more, or by about the same as inequality in one dimension? We find an increase in inequality in two dimensions and in three dimensions, with this increase in inequality in two and three dimensions occurring faster than the increase in inequality in one dimension. The top 5 percent increased its concentration of shares of each measure in all three dimensions. The top quintile of the distribution gained in own and cross shares, and the remaining four quintiles lost own and cross shares.

JEL Codes: D31; E21;

Link to the PDF file

## The Conditional Gini: Estimation and Application to the Relationship between Wealth, Financial Use, and Income Inequality

Christian Ahlin, Hyeok Jeong Session 8.2 Room C204

The Gini measure of inequality can be written as the ratio of dyadic means. We define the conditional Gini as the ratio of conditional dyadic means. The conditional Gini shows how inequality varies with observables, both levels and differences. We illustrate the approach in a simple analytical example, and discuss how it compares to other techniques for attributing inequality to covariates. We show how to estimate the conditional Gini using dyadic regressions, and how to conduct inference using a system dyadic clustering formula. The conditional Gini is estimated using a large, nationally representative household survey from Thailand. The motivation is a literature implying that financial development can weaken or strengthen the links between income inequality and wealth differences. We find that wealth differences explain significantly less income inequality among households that use the financial sector than among those that do not, consistent with the idea that financial access relaxes self-financing constraints and broadens economic opportunity.

JEL codes: D63, C12, C31

Link to the PDF file

## Reference Income Effects in the Determination of Equivalence Scales Using Income Satisfaction Data

Andreas Knabe, Melanie Borah, Carina Kuhställer Session 8.3 Room C415A

We estimate household equivalence scales using income satisfaction data from the German Socio-Economic Panel. We extend previous studies applying this approach by taking reference income into account. This allows separating needs-based from reference effects in the determination of income satisfaction. We show that this adjustment helps to overcome a bias causing an overestimation of adults and an underestimation of childrens needs-based equivalence weights. Our results indicate that controlling for income comparisons eliminates the gap between equivalence scale parameters for adults and children found in other studies.

JEL Classification Codes: I32, J13, D31

Link to the PDF file

#### **Unfairness at Work: Well-Being and Quits**

Conchita D'Ambrosio, Andrew Clark, Marta Barazzetta Session 8.3 Room C415A

We here consider the effect of unfair income on both subjective well-being and objective future job quitting. In five waves of German Socio-Economic Panel data, those who perceive their labour income to be unfair have significantly lower subjective well-being, both in terms of cognitive evaluations (life and job satisfaction) and affect (the frequency of feeling happy, sad, angry and worried). Perceived unfairness also translates into objective labour-market behaviour, with current unfair income predicting future job quits.

JEL codes: D63, J28, J31

Link to the PDF file

## **Top Incomes and Subjective Well-being**

Michal Brzezinski Session 8.3 Room C415A

This paper contributes to the empirical literature on the link between income inequality and subjective well-being (SWB). In particular, the paper estimates the relationship between income inequality as measured by top income shares and SWB understood as self-rated life satisfaction and happiness. Using top incomes data from the World Wealth and Income Database and SWB data from the World Values Survey (waves 1-6), we estimate the relationship between top in-comes and SWB for 25 countries observed between 1981 and 2012 (62 surveys and 70,000 respondents). The main result shows that in a full sample of countries there is a positive relationship between top 1% income shares and life satisfaction (but not between top income shares and happiness). This relationship seems to be driven by a strong positive correlation found in Asian and South American countries. On the other hand, it seems that there is no relationship between top incomes and life satisfaction in Europe.

JEL Classification: D63, I3

Link to the PDF file

## The Effect of Income Inequality on Political Polarization: Evidence from European Regions, 2002-2014

Hernan Winkler Session 8.4 Room C203

This article investigates whether income inequality leads to political polarization and provides new evidence that an increase in the Gini coefficient at the local level increases the probability of supporting a political party at the extreme left or right of the ideological distribution. Using individual data for 25 European countries from 2002 to 2014, I find that increasing inequality leads on average to more support for left-wing parties. I also find that increasing inequality leads to more support for far-right parties among older individuals. Support for far-right parties seems to be driven by rising anti-European Union and anti-immigrant sentiments. These findings help to reconcile the predictions of two different branches of literature on the political-economy implications of rising inequality. The results are robust to a number of specifications, including an instrumental variable that addresses the endogeneity of income inequality.

Link to the PDF file

### **Rent-seeking Induced Inequality Traps**

Mayuri Chaturvedi Session 8.4 Room C203

Does inequality affect rent-seeking and vice-versa? Social scientists have argued that inequality fosters rent-seeking and that rent-seeking is likely to reinforce existing inequalities. In this paper, I model rent-seeking in an unequal endowment economy to analyze the conditions under which an inequality trap would exist. I find that, in the short-run, a more unequal economy fosters a greater proportion of rentiers which in turn perpetuates existing inequities. In the long-run, as rentiers are able to change the rules of the game, the proportion of rentiers shrinks. However, both the amount of rents and ex-post inequality increase.

JEL code: D23, D31, D63, D72

Link to the PDF file

#### Income, social and political inequality

Ariun-Erdene Bayarjargargal Session 8.4 Room C203

This paper empirically investigates the dependence of income inequality on social and political inequality and its relationship to GDP per capita. The data used is a cross-country panel data set for 72 countries, both developed and developing, over the period between 1970 and 2006. Having identified endogeneity amongst the variables, the study employs a system GMM estimation technique. The empirical evidence strongly supports the inverted-U curve hypothesis between GDP per capita and inequality which is measured by the Gini coefficient. While both social and political inequality increase income inequality, the effects have reversed when they interactively change. Other significant determinants of income inequality are the government spending to GDP ratio, the age dependency ratio, labour force participation rate for females, and education.

Link to the PDF file

## Global inequality dynamics: new findings from WID.world

Facundo Alvaredo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, Gabriel Zucman Session 8.5 Room C198

This paper presents new findings on global inequality dynamics from the World Wealth and Income Database (WID.world), with particular emphasis on the contrast between the trends observed in the United States, China, France, and the United Kingdom. We observe rising top income and wealth shares in nearly all countries in recent decades. But the magnitude of the increase varies substantially, thereby suggesting that different country-specific policies and institutions matter considerably. Long-run wealth inequality dynamics appear to be highly unstable. We stress the need for more democratic transparency on income and wealth dynamics and better access to administrative and financial data.

JEL codes: E01, H2, H5

Link to the PDF file

# Inequality increasing everywhere? Conflicting evidence from an updated global database of household surveys

Francisco Ferreira, Christoph Lakner, Ani Rudra Silwal Session 8.5 Room C198

This paper presents the most up-to-date evidence on national inequality in income or consumption from as many countries as possible. We find that the Gini index for the average country began to fall in the early 2000s, but remains higher in 2013 than 25 years earlier. In a sample of countries with strictly comparable household surveys between 2008 and 2013, for every country where the Gini index increased by more than 1 point, there are two countries where it fell by more than 1 point. These findings are robust to a number of factors, including the use of alternative databases of inequality indicators. While we have used the best available evidence from household surveys, a number of measurement issues, such as missing top incomes and the use of expenditure instead of income surveys, remain unresolved.

JEL Codes: D31, D63

Link to the PDF file

## Global inequality: how large is the effect of top incomes?

Vanesa Jorda, Miguel Niño-Zarazua Session 8.5 Room C198

In this paper, we estimate the recent evolution of global interpersonal inequality and examine the effect of omitted top incomes on the level and direction of global inequality. We propose a methodology to estimate the truncation point of household surveys by combining information on income shares from household surveys and top income shares from tax data. The methodology relies on a flexible parametric functional form that describes the income distribution for each country-year point under different assumptions on the omitted information at the right tail of the distribution. Goodness-of-fit results show a robust performance of our model, supporting the reliability of our estimates. Overall, we find that the undersampling of the richest individuals in household surveys generate a downward bias in global inequality estimates that ranges between 15 per cent and 42 per cent,

depending on the period of analysis, and the assumed level of truncation of the income distribution.

JEL codes: D31, D63, E01

Link to the PDF file

## Are Top Shares a Good Measure of Inequality?

Guillermina Jasso Session 8.6 Room 9204

Newly precise evidence of the trajectory of top incomes in the United States and around the world relies on top shares and top-to-bottom ratios, prompting new inquiry into their properties as inequality measures. Current evidence suggests a mathematical link between top shares and the Gini coefficient and empirical links extending as well to the Atkinson measure. The work reported in this paper strengthens that evidence, making several contributions: First, it formalizes the shares and ratios, showing that as monotonic transformations of each other, they are different manifestations of a single underlying inequality measure. Second, it presents a standard form of the underlying inequality measure that satisfies the principle of normalization ranging from zero to one, with zero representing perfect equality and inequality increasing as the measure goes toward one – but also finds that, compared to shares and ratios, the standard form is somewhat blunt in depicting changes in inequality. Third, it investigates the measure in mathematically specified probability distributions, showing that it is monotonically related to classical measures, such as the Gini, Atkinson, and Theil measures and the coefficient of variation. Thus, the evidence to date suggests that the family of top shares and top-to-bottom ratios is a genuine inequality measure and a useful all-purpose proxy for other inequality measures. Moreover, this new measure is further distinguished by its ease of calculation and ease of interpretation, making it a widely appealing measure of inequality.

JEL codes: D31, H2

Link to the PDF file

## Evolution of income poverty under unequal growth: Settling the dispute between absolutists and relativists.

Benoit Decerf, Mery Ferrando Session 8.6 Room 9204

We study the impact on income poverty of unequal growth experienced in the US over 1989-2013 using a new measure of poverty. This measure accounts for both the relative and absolute aspects of income poverty. It depends on a key normative parameter that defines how much weight is given to each of these two aspects. The preferred parameter value for an absolutist moral observer lies at one extreme of the parameter range, whereas that of a relativist observer lies at the other extreme. Under unequal growth, absolutists often disagree with relativists. The former typically consider that poverty decreases and the latter that poverty increases. We first develop simple theoretical conditions under which the poverty judgments obtained with our measure are fully robust to the choice of its normative parameter. For non-robust cases, we derive a simple formula returning the threshold parameter value at which the judgment is reversed. We then apply our measure to study the evolution of poverty in the US over the recent period of unequal growth. Results show that our measure provides sensible poverty judgments that are not drastically different from those obtained with the official measure but far enough to justify its pertinence. Making pairwise comparisons of poverty over time or across states, our measure reaches opposite conclusions to those of the official measure when inequality is significantly higher in the high-income distribution. Specifically, unlike the official poverty rate, our measure deems the core unequal growth period between 1993 and 2008 as poverty increasing. Interestingly, poverty judgments are largely robust to the choice of the normative parameter.

JEL: D63, I32.

Link to the PDF file

#### **Unequal Inequalities Revisited**

Joshua Greenstein

Session 8.6 Room 9204

Any discussion of inequality includes an implicit normative or ethical comparison of distributions; a certain distribution of some good, or of gains in that good, is acceptable or not acceptable, is better or worse, is improving or stagnating. If discussions of inequality inevitably involve rankings and comparisons of different distributions, then how inequality is defined and measured will affect these rankings and comparisons. The choice of measurement of inequality is therefore not value neutral. Ive applied 'absolute' and 'centrist' measures to some very well-known research results obtained using relative measures, and illustrated how these different measures put these familiar findings in a new light. I argue for the utility of using a broader array of inequality measurements, specifically in terms of those that take into account absolute differences.

JEL CODES: D31 D6

Link to the PDF file

## Measuring Inequality via the use of Asset Indexes: The Case of Central and Western Asia

Joseph Deutsch, Jacques Silber, Guanghua Wan *Session 8.7 Room 9205* 

#### Abstract

This paper examines the evolution of inequality in the South Caucasian and Central Asian states, using an aggregate index based on consumer durables available to the households. Instead of using principal components analysis to aggregate asset indicators into an overall asset index, we propose an ordinal approach to using data on assets, when estimating the wealth of a household (or individual). Using various approaches, we show that there tends to be an order of acquisition of durable goods. On the basis of such an order we then compute indices introduced recently to measure inequality when only ordinal variables are available. Our empirical analysis is based on two data sets: the data collected by the Caucasus Barometer surveys for the years 2009 and 2013, which cover Armenia, Azerbaijan and Georgia, and the Life in Transition Survey for the years 2006 and 2010, which cover Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. As far as inequality is concerned, the Caucasus Barometer surveys showed that wealth inequality, derived on the basis of data on assets, increased quite a lot between 2009 and 2013 in Azerbaijan. The Life in Transition surveys show that, during the period 20092013, inequality increased in Armenia, Azerbaijan, Kazakhstan, and Tajikistan whereas there were no important changes in inequality in Uzbekistan and Georgia. For Kyrgyzstan the results are less clear-cut.

JEL codes: D31 I31

Link to the PDF file

#### The Global Rise of Asset Prices and the Decline of the Labor Share

Ignacio Gonzalez, Pedro Trivin Session 8.7 Room 9205

The labor income share has been decreasing across countries since the early 1980s, sparking a growing literature about the causes of this trend (Elsby et al., 2013; Karabarbounis and Neiman, 2014; Piketty and Zucman, 2014; among others). At the same time, again since the early 1980s, there has been a global steady increase in equity Tobin's Q which shows an increasing trend of asset prices in modern economies. This paper uses a simple model to connect these two phenomena and evaluates its empirical validation. In our model a raise in equity Tobin's Q increases equity returns and, importantly, depresses the capital-output ratio. The impact on the capital-output ratio reduces the labor share for standard values of the elasticity of substitution. Based on a common factor model, we find that the increase in Tobin's Q explains almost 60% of the total decline in the labor income share. We highlight different factors that operate through the same theoretical channel, including capital income taxes and monopoly mark-ups, and we find empirical evidence for all them, not only for the rise of monopoly power (which has been the focus of recent literature). We also find that the impact of the relative prices of capital goods on the labor share is not significant. Finally, we use the model to suggest different policies that can revert this declining trend.

Link to the PDF file

### Housing Bubbles, Offshore Assets and Wealth Inequality in Spain (1984-2013)

Clara Martínez-Toledano Toledano Session 8.7 Room 9205

This paper combines different sources (tax records, national accounts, wealth surveys) and the capitalization method in order to deliver consistent, unified wealth distribution series for Spain over the 1984-2013 period, with detailed breakdowns by age over the 1999-2013 sub-period. Wealth concentration has been quite stable over this period for the middle 40% and bottom 50%, with shares ranging between 5-10% and 30-40%. Since the end of the nineties Spain has experienced a moderate rise in wealth concentration, with significant fluctuations due to asset price movements. Housing concentration rose during the years prior to the burst of the bubble, due to the larger increase in secondary dwelling acquisitions (quantity effect) by upper wealth groups, and decreased afterwards. The housing bubble had, however, a neutral impact on wealth inequality. Rich individuals substituted financial for housing assets during the boom, and compensated for the decrease in real estate prices during the bust by selling some of their dwellings and accumulating more financial assets. Even though housing reduces the levels of wealth inequality, the bulk in secondary residence, together with offshore assets and different rates of return and savings rates across groups have contributed to keeping the same high levels of wealth concentration of the 1980s in the late 2000s.

JEL Classification: D3, N3, R2

Link to the PDF file

## The contribution of minimum wage valorization policy to the decline in household income inequality in Brazil: a decomposition approach

Alessandra Brito, Miguel Foguel, Celia Kerstenetzky Session 8.8 Room 9206

There is a vast literature that estimates the effect of the minimum wage on wage inequality in various countries. However, as the minimum wage directly affects non-labor income of families in some countries (in the Brazilian case via the benefits of the pension system and of certain social programs), this paper extends the empirical analysis by studying the effects of the minimum wage on the level of inequality of household income as a whole. To accomplish that we employ a decomposition method that gauges the contribution of the increases in the minimum wage that occurred in the last decades in Brazil through the labor and non-labor sources of household income. The results show that the minimum wage had a contribution of 64% to the observed fall in income inequality between 1995 and 2014 and that pensions were the most relevant channel over this period.

JEL: D31, D63, E24

Link to the PDF file

## The Labor Market Effects of an Educational Expansion. The case of Brazil from 1995 to 2014

David Jaume

Session 8.8 Room 9206

Most developing countries invest increasing shares of their GDP into education, expanding the educational level of their work-force. However, the labor market effects of such expansions have been heterogeneous across countries and within a country in different periods. This paper develops a simple general equilibrium framework to study the forces behind the labor market effects of an educational expansion. I focus on changes in real wages and the distribution occupations for the overall workforce and for each educational group. To do it, I use an assignment model of worker skills into occupations. I assume workers can be of three different types: low, medium and high educated (which maps into elementary, high school and college educated workers). An increase in education changes the assignment of workers' types into occupations as well as their wages on those occupations. I show that an educational expansion in secondary schooling decreases wages of medium educated while wages for other groups could increase or decrease depending on the comparative advantage schedules. An expansion in tertiary education always increases wages of low educated workers and decreases wages of high educated, while wages of medium educated workers could increase or decrease. The key factor behind the direction and the extent of these changes is the comparative advantage schedule of workers' types into different occupations.

I apply this framework to explain the patterns in wages and occupations observed in Brazil during the period 1995-2014.

Brazil underwent a large educational expansion on secondary schooling until 2004, followed by an expansion in college educated workers. The model qualitatively predicts the wage and allocations patterns in those two distinct periods. I calibrate the model and show that it predicts most of the quantitative patterns from 1995 to 2014. I run counterfactuals to evaluate the contribution of an educational expansion to labor productivity and average wages. I find that returns to education on those dimensions decline rapidly, and further educational expansions in 2014 will have less than a third of the effect in 1995

JEL codes: I25; J24; O15.

Link to the PDF file

## The expansion of consumption and the welfare dynamics of the Brazilian families: a decomposition analysis of poverty and inequality

Leonardo Oliveira, Viviane Quintaes, Luciana Santos, Debora Souza Session 8.8 Room 9206

This article analyses dynamic aspects of welfare, inequality and poverty in Brazil from the perspective of the per capita consumption. By means of the data of the Brazilian Family Expenditure Survey (POF) and the construction of the consumption aggregates, the evolution of the consumption structures are evaluated, according to the location of families in the Major Brazilian Regions and in the urban and rural areas. For this purpose, the study incorporates the value of services related to existing durable goods in the households in the last two editions of the survey. The study resorts to graphical and dominance analyses as well as to functions that allow measuring and separating the effects of growth and inequality over social welfare. The role of the consumption structure (and its changes) to welfare, poverty and inequality is evaluated according to static and dynamic decompositions. The main results indicate that the durable goods strongly contributed for the growth of consumption and social welfare but they were also a limiting factor for the inequality reduction. The inclusion of durable goods in the analysis changed the dynamics of inequality in such a way that the Gini index remained relatively stable, going from 0.502 (in 2002-2003) to 0.495 (in 2008-2009). We also observed that, in all the geographic areas that were studied, poverty in 2008-2009 was lower than in 2002-2003 for the different measures and poverty lines.

JEL: C02, C43, D31

Link to the PDF file

## The Composition Effects of Tax-Based Consolidations on Income Inequality

Gabriele Ciminelli, Ekkehard Ernst, Massimo Giuliodori, Rossana Merola Session 8.9 Room C202

Many advanced economies have recently embarked on fiscal austerity. As this has come at a time of high and rising income disparities, policy-makers have fretted worrying about the inequality effects of fiscal consolidations. We shed new light on this issue by empirically investigating the composition) effects of tax-based consolidations on income inequality, output and labour market conditions for a sample of 16 OECD countries over the period 1978-2012. We find that tax-based consolidations reduce income inequality, but at the cost of weaker economic activity. However, tax composition does matter. Indirect taxes reduce income inequality by more than direct taxes, possibly due to the operation of a positive labour supply channel. Higher indirect taxes increase the price of the consumption basket and create incentives for agents to increase their labour supply. We find this effect to be stronger for middle-aged women. Looking at specific instruments, general consumption taxes and personal taxes are the most suited to reduce inequality while at the same time minimizing the equity-efficiency trade-off.

JEL codes: E2; H2; O1.

Link to the PDF file

## The dynamic effects of fiscal consolidation episodes on income inequality: Evidence for 17 OECD countries over 1978-2013

Philipp Heimberger Session 8.9 Room C202 Using an annual data set covering 17 OECD countries over the time period 1978-2013, this paper analyzes the dynamic effects of fiscal consolidation episodes on income inequality in the short- and medium-run. By estimating impulse response functions from local projections, we find that fiscal consolidations typically lead to an increase in income inequality. Baseline results suggest that in the aftermath of a fiscal adjustment episode, the Gini coefficient of disposable income increases by about 0.4 percentage points in the short-run (after three years), and by 0.6 percentage points in the medium-run (after 7 years). The impact of fiscal austerity measures on the income distribution is found to be more pronounced when a) the fiscal consolidation is based more on spending cuts than on tax increases; b) when the size of the fiscal consolidation package is large rather than small; c) when the consolidation is started in the aftermath of a financial crisis rather than in a non-crisis episode; and d) when the adjustment falls into a period of low economic growth instead of high growth.

JEL codes: D63, E62, E64

Link to the PDF file

## Has the world converged? A robust and consistent analysis of non-monetary bounded indicators

Suman Seth, Gaston Yalonetzky Session 9.1 Room 9207

Several non-monetary development indicators are bounded. Hence many of them can be, and actually are, represented in terms of either attainments or shortfalls. We implement a consistent and robust assessment of absolute convergence across countries in several bounded non-monetary development indicators. That is, our analysis tests whether convergence has been consistent to the choice of representing indicators as either attainment or shortfalls and robust to the choice of any possible inequality index guaranteeing consistency, i.e. any possible absolute inequality index. Although we find numerous instances of consistent convergence based on four initial choices of absolute inequality indices, these are rarely robust to alternative index choices as shown by crossings in the corresponding absolute Lorenz curves. Our evidence indicates that progress in bounded development indicators has been characterized by Kuznets curves. However, as the paper shows, maximum absolute inequality with bounded variables is a parabolic function of mean attainment. This behaviour poses the question as to whether Kuznets curves are a mechanical artifact of the measurement units and indices rather than reflecting some conceptually meaningful trend. In order to address this concern we propose a complementary method to assess absolute convergence in these situations. With a new axiomatically characterized class of normalized consistent inequality indices that capture the extent to which maximum inequality is realised, we find empirically that some Kuznets curve behaviours do disappear once we control for maximum possible inequality while others remain. That is, we find genuinely egalitarian paths of development for some indicators.

JEL: I31, O47, O57

Link to the PDF file

### **Evaluating Education Systems**

Nicolas Gravel, Edward Levavasseur, Patrick Moyes Session 9.1 Room 9207

This paper develops and implements dominance criteria for evaluating the performance of compulsory school systems. The main criterion that we propose is shown to be the smallest transitive criterion compatible with three elementary principles for evaluating such school systems. The first principle requires that improving the cognitive skills of a child of a given family background is a good thing. The second principle says that the evaluation attached to the given cognitive skills of a child is all the more favorable as the child comes from a family with an unfavorable background. The third principle says that, for a given distribution of the children's cognitive skills and family backgrounds, reducing the correlation between family background and cognitive skill is a good thing. Our dominance criterion considers that a school system "A" is better than school system "B" if, for any pair of reference family background and cognitive skills, the fraction of the children who have better cognitive skills and who come from worse family backgrounds than the reference is weakly larger in "A" than in "B". We then apply our criterion to the ranking of education systems of major OECD countries, taking the standardized PISA 2012 Maths scores as the measure of cognitive skills, and considering in turns various indices of the family backgrounds. We show that, albeit incomplete, our criterion enables the comparisons of quite a few education systems. Education systems of fast growing asian economies - and in particular Vietnam, appear rather at the top of our rankings while those of wealthy arabic countries such as Qatar or Arab Emirates appear at the

bottom. We also consider the possibility of extending our criterion by incorporating some additional value judgement about varying inequality in cognitive skills.

JEL: I24

Link to the PDF file

## Measuring robustness for poverty comparisons: Revisiting progresses in poverty reduction during the MDG era

Florent Bresson, Anne Viallefont Session 9.1 Room 9207

Poverty assessment a difficult exercise because of the fundamental uncertainty regarding the appropriate weighing scheme to be used for poverty comparisons. Indeed no unanimous agreement can be obtained regarding for instance the relative weight a -person should be given when compared with a -person, assuming both are poor, in terms of poverty. One cannot even be sure that an observed decrease in poverty for a population during a given period, using a well-defined poverty index with its specific weighing structure, will still hold if we consider a different weighing scheme for each observed income level. This issue of the robustness of poverty orderings was first addressed by Atkinson (1987) that proposed to make use of stochastic dominance procedures in order to test the contingency of poverty orderings with respect to the choice of a specific poverty index. A somehow undesirable feature of this approach is that it does not provide a complete preorder.

However, one can sometime have the feeling that the odds are relatively high that one distribution could be regarded as more desirable in terms of poverty than the compared distribution, though no dominance relationship can be observed. In other cases, such judgments may be more difficult. In the present paper, we try to support this approach by proposing a simple measure of how close we are from a dominance relationship of a given order when comparing two income distributions, hence making it possible to separate within the set of no-dominance relationships those where we could be quite confident in concluding that poverty has increased or decreased from those comparisons where such conclusions would be rather weak. An illustration is provided regarded observed poverty changes in developing countries during the MDGs era.

JEL Codes: D63, I3.

Link to the PDF file

### **Diasporas and conflict**

Fabio Mariani, Marion Mercier, Thierry Verdier Session 9.2 Room C204

We build a model of conflict in which two groups contest a resource and must decide on the optimal allocation of labor between fighting and productive activities. In this setting, a diaspora emanating from one of the two groups can get actively involved in the conflict by transferring financial resources to its origin country. We find that the diaspora influences the war outcome and, above a certain size, contributes to the escalation of violence. Given the characteristics of the conflict equilibrium, the two groups of residents prefer to negotiate a peaceful settlement if there exists a sharing rule that makes both of them better off than war. We then identify the characteristics of the economy such that the diaspora acts as a peace-wrecking force or triggers a transition towards peace. A dynamic version of the model with an endogenous diaspora allows us to analyze the joint evolution of migration and conflict in the home country, discuss the role of openness to migration and the possibility of multiple equilibria, and draw some policy implications.

JEL codes: F22; D74; O1.

Link to the PDF file

Neighborhood disputes? Spatial inequalities and civil conflict in Africa

Richard Bluhm, Melvin Wong Session 9.2 Room C204

High levels of spatial inequality are associated with slow growth and civil conflict in developing countries, yet we know very little about whether these findings are driven by localized tensions or nation-wide grievances. In this paper we develop novel measures of local spatial inequalities which can be applied to neighborhoods of varying sizes. Using geographic information systems, we use these measures to capture economic differences between neighboring ethnic groups and administrative regions in Africa. We show that greater ethnic inequalities are robustly associated with a higher propensity of experiencing civil conflict within a particular region, while spatial inequalities among first-level administrative regions are not. Interestingly, once comparisons include groups living further away this association strengthens, while reducing the size of the neighborhood often weakens the estimated effect. We also show that the effect of local between-group inequality on conflict varies with the historical formation of language groups.

JEL codes: D74, O11, D63

Link to the PDF file

## Decisions under uncertainty: Are victims of conflict quantile maximizers?

Lidia Ceriani, Paolo Verme Session 9.2 Room C204

The paper uses a quantile maximization approach (Rostek, 2010) to test the hypothesis that, in a conflict scenario, individuals are t-th quantile decision makers as opposed to expected utility maximizers. Individuals living in conflict countries need to make a choice between two alternative aleatory scenarios: remain in their homes, facing the threat of losses, injury or death, or migrate elsewhere, facing the threat of a dangerous journey to an uncertain destination. Using a rich set of panel data on Internally Displaced Persons (IDPs), conflict data and values data in Nigeria, we show how individuals cluster in quantiles according to socio-economic and behavioral characteristics and how a quantile maximization approach based on this clustering helps to explain apparently irrational migration choices during conflict.

JEL codes: D1; D3; D6

Link to the PDF file

#### Wealth distribution in Uruguay: a capitalization method approach

Mauricio De Rosa Session 9.3 Room C415A

This article aims to analyze the level, composition and distribution of wealth in Uruguay in 2012, using the capitalization method recently applied by Saez & Zucman (2014). Drawing form individual capital income, the underlying wealth is estimated using capitalization factors for each type of wealth, equivalent to the inverse of their return rate. Tax records are used as the main data source for this procedure, while a wide range of secondary sources which combine other administrative data and household surveys are also used. Results show that wealth amounts to 1.9 times the GDP and that it is highly concentrated: the Gini index is 0.824, and at least 25.8% of total wealth is owned by the wealthiest 1% of the population, whilst 13.7% is owned by the top 0.1%. Real estate is the predominant type of wealth and it is more evenly distributed than financial wealth and business property, which are almost entirely concentrated among the wealthiest 1%: the top 0.1% owns 90% of business wealth and 54.5% of total financial wealth. Results barely change when considering different computation alternatives and the comparison with the Household Financial Survey shows the expected results. Moreover, wealth is higher for males than for females and it grows with age, though there is no evidence of a downturn near the retirement age. Finally, a strong correlation is found between income and wealth, particularly among individuals at the top 1% of the wealth distribution, who tend to overlap with those in the right tail of the income distribution.

JEL code: D31

Link to the PDF file

#### The Joint Distribution of Income and Wealth in Uruguay

Graciela Sanroman, Guillermo Santos

Session 9.3 Room C415A

This paper analyses the joint distribution of income and wealth in Uruguay, and compares it to those of Chile, Spain and the U.S. using data from Surveys of Household Finances and Wealth. First, we separately analyse each variable of interest and find that wealth is much more concentrated and notably more asymmetric than income. Afterwards, we analyse the joint distribution of income and wealth by using empirical copulas. We find that, similarly to other countries, in Uruguay high income households are among the wealthiest, while low income households are mostly in the bottom of wealth distribution. Finally, we estimate mean and quantile regressions for wealth and income in Uruguay and find that education and inheritances are the major sources of heterogeneity.

JEL CODE: C4, C31, D3

Link to the PDF file

## Family Structure & Wealth Inequality among Families with Children, 1989-2013

Christine Percheski, Christina Gibson-Davis Session 3.5 Room C198

Parental net worth (wealth) plays a critical role in determining childrens development and well-being, but little is known about family structure differences in net worth for families with children. Net worth may vary by family structure because of differences in family earnings, investments, and debts, and because of differences in the demographic characteristics of parents by family structure. This study presents the first analyses of over-time differences in wealth by family structure for families with children in the United States. Using data from the Survey of Consumer Finances (SCF) from 1989 to 2013, we find that family structure differences in wealth are very large. Married-parent families have substantially higher net worth than other family structures, and never married mother families are substantially worse off than divorced mother or cohabiting parent families. Astoundingly, half of all never married mother families in every year have negative net worth. Married parents have the types of assets and debts that historically have been associated with wealth growth; unmarried families have asset and debt patterns that suggest little opportunity for long-term growth. Wealth differences by family structure are only partially explained by differences in parental characteristics and earnings. Moreover, despite changes in the demographic composition of married-parent families between 1989 and 2013, family structure differences in wealth remained stable, suggesting that the associations between family structure and wealth are not solely driven by changing social selection into married parenthood. Given that never married mothers lag significantly behind other unmarried family structures in wealth, their offspring may face additional difficulties in acquiring wealth as adults.

JEL codes: J12, D31, D63

Link to the PDF file

## The distributional impact of social spending in Peru

Anja Gaentzsch Session 9.4 Room C203

Peru has achieved progress in reducing poverty and, to a lesser extent, inequality in the past decade alongside high economic growth. Albeit this progress, the incidence of poverty and inequality remain high. This paper examines the extent to which public social spending contributes to equalizing the distribution of economic resources and reducing poverty. It applies an extended income concept that accounts for the value of publicly-provided health, education and childcare services. The results suggest that the overall impact of public social spending on inequality is moderate and mainly driven by in-kind benefits, while the reduction achieved through direct cash transfers is negligible. Decomposing the contribution of different regional subgroups to the overall level of inequality shows that income differentials within regions explain the largest share of overall inequality: they account for approximately four fifths of inequality compared to differences between regions, which explain only about one fifth. Social spending decreases inequality in all regions by about the same share: the ratio of within and between inequality remains largely constant over the different income concepts. In terms of poverty, social spending has a relatively large impact in rural areas, where it sees a reduction of about ten percentage points. Nonetheless, poverty remains high and exceeds 50 percent in rural areas when measured in relative terms. Possible explanations include an insufficient targeting characterized by leakage and the lack of graduation mechanisms, as well as a limited coverage arising from geographical prioritization and administrative

barriers to enrolment. JEL: H53, I31, I38

Link to the PDF file

### Inequality and informality revisited

Verónica Amarante, Rodrigo Arim Session 9.4 Room C203

Many developing economies share two distinctive features: high levels of inequality and sizeable informal employment. Despite the importance of these facts, the literature addressing the relationship between both variables is scarce. In this paper, we propose a simple model which illustrates their ambiguous relationship: an increase in the level of formalization in the labor market could have different effects on income inequality. According to this model, different factors, such as the wage differential between formal and informal sectors, the level of inequality within each sector and the size of the informal sector may affect the sign of the relationship between inequality and informality. We empirically test this hypothesis using panel data for Latin America countries, covering the period 1990-2014. Our results indicate that, for the specific conditions that held on that region and period, increases in formalization in the labor market have been related to decreases in wage inequality.

JEL codes: D31, J31

Link to the PDF file

# Effects of Food Prices on Poverty: The case of Paraguay, a food exporter and a non-fully urbanized country

Santiago Garriga, Maria Ana Lugo, Jorge Puig Session 9.4 Room C203

A vast proportion of households in developing countries like Paraguay are both consumers and producers of food, and thus the effects of food price fluctuations on well-being are not obvious. Historically, the agricultural sector in Paraguay has played a fundamental role in economic development and has contributed significantly and increasingly to economic growth. In recent years, the sharp movements in commodity prices had added to the inherent volatility of the sector related to climate conditions. This work uses the 2011/12 expenditure and income survey as well as monthly price data at item level for 2007-15 that allows tracking 127 food items to simulate the effect of a potential hike in food prices on welfare. Our main results suggest that the expenditure effect is negative and regressive everywhere, but larger in rural than urban areas. The income effect is positive and progressive in rural areas and negligible in urban areas. Therefore, we find that the potential overall impact of an unexpected increase in food prices in Paraguay is a very flat U-shaped curve. We conclude with a simple simulation exercise of the potential effects of the introduction of a policy response to help those affected by an increase in food prices.

JEL: D31, I38, 12

Link to the PDF file

## Understanding the mechanical relationship between inequality and intergenerational mobility

Yonatan Berman

Session 9.5 Room C198

Income inequality and income intergenerational immobility are positively associated across countries. Here we provide an explanation for this association and show it is mechanically driven by the definition of the intergenerational earnings elasticity. This may hint that higher intergenerational mobility will lead to lower income inequality and vice versa. However, it questions the underlying economic significance of the empirical findings depicted in the so-called "Great Gatsby curve", as it presents the relationship between two measures of the same underlying mathematical property. We also find a similar relationship between the intergenerational earnings elasticity and the rank-rank slope. We conclude that measuring inequality using the Gini coefficient and intergenerational mobility using intergenerational earnings elasticity or rank-rank slope is fundamentally equivalent.

Link to the PDF file

## Intergenerational Mobility between and within Canada and the United States

Marie Connolly, Miles Corak, Catherine Haeck Session 9.5 Room C198

Intergenerational mobility is about twice as great in Canada than in the United States, but varies significantly within each country. Our sub-national analysis of six different indicators finds that the national border only partially distinguishes the close to one thousand regions we analyze within these two countries. The Canada-US border clearly divides Central and Eastern Canada from the Great Lakes regions and the Northeast of the United States. But these differences drive only part of the national differences in mobility. While some Canadian regions have more in common with the low mobility southern parts of the United States than with the rest of Canada, the fact that they represent a much smaller fraction of population is the other reason why overall mobility is lower in the United States.

JEL: J62 I32

Link to the PDF file

## The intergenerational elasticity of income in the United States is rising in tandem with income inequality and returns to schooling

Moshe Justman, Anna Krush, Hadas Millo Session 9.5 Room C198

We examine the hypothesis that intergenerational mobility in the United States has decreased while inequality and returns to schooling have risen among white males born between 1952 and 1979, using linked parent-child data from the United States Panel Study of Income Dynamics. In a two-stage process, we first estimate lifetime family income for fathers and lifetime earnings for sons within a succession of overlapping ten-year cohort groups. We then estimate the intergenerational elasticity of income (an inverse measure of intergenerational mobility), the 90-10 gap in the logarithm of lifetime earnings, and the average return to a year of schooling within each ten-year cohort group. We find that all three time-series are increasingthe intergenerational elasticity of income increased annually by 0.01, on averageand exhibit correlations of 0.85 and higher between each pair of measures. Intergenerational correlations of the logarithm of income or of income rank have not been rising.

JEL codes: D31, I32

Link to the PDF file

#### A new measure of income poverty for Europe

Benoît Decerf, Karel Van den Bosch, Tim Goedemé Session 9.6 Room 9204

In Europe poverty is usually measured with the at-risk-of-poverty indicator which defines the poverty threshold as 60 per cent of national median income. With this indicator, poverty seems to be lower in some poor EU countries than in some of the richest EU Member States. Also, when the median income changes quickly, the evolution of poverty as shown by the indicator can be counterintuitive, for instance resulting in stagnation or even a decrease in poverty when median incomes fall and living conditions of the poor deteriorate. In this article we propose a new poverty indicator, the Poverty Gap Ratio with priority to the pan-European poor (PGR-PAN) which is not subject to these limitations. The indicator is based on two lines: a hybrid poverty line which increases with national average income and a pan-European poverty line which is fixed in real terms across time and across countries. We use reference budgets to identify a set of useful poverty thresholds. On the basis of EU-SILC data we show that our indicator results in results that are in better agreement with intuitive notions about poverty within the EU and captures more adequately changes as well as cross-national differences in living standards. Furthermore, we contend that the use of our indicator can lead to a more consistent evaluation of poverty in comparison with other indicators of poverty and social exclusion.

JEL codes: D31, D63

Link to the PDF file

## Poverty risk of the unemployed in Europe: Why is it higher in some countries than in others?

Kerstin Bruckmeier, Thomas Rhein Session 9.6 Room 9204

In all European countries unemployed persons face a high risk of relative poverty, but poverty rates vary greatly among EU countries. In this paper, we analyse to what extent these differences could be explained by differences in the composition of the unemployed and by differences in the underlying income distribution functions. We utilise representative individual data from the European Union Statistics on Income and Living Conditions (EU-SILC) for the year 2014 and model the income distribution in six European countries conditional on individual characteristics. The results indicate that the effects of several individual characteristics on the poverty risk are comparable in all countries, but the composition of the unemployed is very different. A decomposition analysis reveals that differences are to a large degree explained by differences in the composition. However, under given individual characteristics still distinct differences in poverty rates remain.

JEL codes: D31, I32, J64

Link to the PDF file

### Household size and poverty

Alessio Fusco, Nizamul Islam Session 9.6 Room 9204

We analyse the effect of household size, and in particular of the number of children of different age groups, on poverty, defined as being in a situation of low income. Identification of this relationship is complicated by endogeneity problems due to reverse causality and different forms of state dependence in low income. Therefore, using longitudinal data, we estimate static and dynamic probit models with alternative specifications, which allow us to control for the endogeneity of the variables of interest to be controlled for and to account for unobserved heterogeneity, first-order state dependence and serially correlated error components. Using data from the Luxembourg socioeconomic panel Liewen zu Lëtzebuerg and standard European Union definitions of poverty, we find that the number of children of different age groups significantly affects the probability of being poor. However, the magnitude of the effect varies across different specifications. For example, the increase of the likelihood of being poor due to a birth varies between 3.7% and 6.7% (1% and 2.1%) in the static (dynamic) case. In addition, we find that poverty is affected by significant true state dependence, unobserved heterogeneity and negative serial correlation in the error component.

JEL: D10, D31, I32

Link to the PDF file

## The increasing longevity gap by lifetime earnings and its distributional implications

Daniel Kemptner, Peter Haan, Holger Luethen Session 9.7 Room 9205

In this paper we use social security records from the German Pension Insurance to document the heterogeneity in life expectancy by lifetime earnings and we analyze how this longevity gap has evolved over cohorts. In line with previous studies, we provide evidence that the earnings-related longevity gap is increasing over cohorts. This increase is especially pronounced for men, smaller for East German women, and is not present for West German women. We then propose a decomposition to disentangle the role of the increasing earnings inequality over cohorts and the effect of changes in the earnings gradient on life expectancy. Finally, we study the distributional implications of the increasing longevity gap for the pension system. First, we show how the heterogeneity in life expectancy affects the distribution and the inequality of social security wealth and we document how this has evolved between the cohorts. Second, we calculate internal rates of return of the pension system and compare the rates by lifetime earnings and between cohorts. We find that the inequality in the social security wealth and in the internal rate of return of the pension system is increasing.

JEL codes: H55, I14, J11

Link to the PDF file

## Sources of German Income Inequality across Time and Space

Franziska Deutschmann Session 9.7 Room 9205

Income inequality rose in Germany since the 1970s. To quantify the impact of socio-economic trends on inequality, I construct counterfactual distributions of net household income with rich German data. The procedure controls for marital sorting in education and allows for indirect influences, such as the influence of education on employment. I find that the prevalence of singlehood can account for the observed increase in inequality since the 1970s to a vast extent. The inequality increase is also associated with a change of employment among males and single females. Compared to West Germany, in 2011, the stronger labor attachment of East German married females combined with the high East German unemployment produce more income inequality. East-West differences in children per household also boost East German inequality. East German education works against it. I find no evidence that positive assortative mating in education or the aging society augment income inequality significantly.

JEL codes: D31, J11, I24

Link to the PDF file

# Cross-National Differences in Income Inequality: Isolating the Roles of Demography, Market Returns, Policy and Labour Supply

Denisa M. Sologon, Philippe Van Kerm, Jinjing Li, Cathal ODonoghue Session 9.7 Room 9205

Isolating the effect of various influences on income inequality is of policy importance. Traditionally, comparison studies explored the changes of inequality through the lens of summary indices. This method however, can be crude because the intertwined nature of the tax policies and the market income distribution creates a complex nonlinear pattern than cannot be fully captured by indices. We propose a unified simulation framework for exploring the drivers of the cross-national differences in the distribution of household disposable income, focusing on the role of tax-benefit systems, employment structures and market returns and demographic structures. Our framework extends the methodology by developing a household income distribution, which incorporates a flexible parametric approach of modelling market incomes, the complexity of tax-benefit rules through microsimulation (EUROMOD), and the integration of the labour supply behaviours. The result is an integrated framework across countries for generating and simulating the distribution of household disposable income under alternative scenarios, thereby enabling the study of the various drivers of the cross-national distributional differences in household disposable income. We apply the method through the analysis of two European countriesthe UK and Irelandthat share many similarities, while displaying at the same time sufficient differences to merit understanding more clearly of the factors that have resulted in different levels of inequality. The direct effect of the differences in tax-benefit rules between the two countries accounts for roughly half of the observed difference in income inequality. The Irish tax-benefit system is more redistributive than the UK system due to a higher tax progressivity and more generous average transfer rates. These differences are largely attributable to policy differences, but also to differences in market income distribution. Market income distributional differences reinforce the net redistributive policy effect via the market composition and demographic differences.

JEL Codes: D31,H23,J21,J22,J31

Link to the PDF file

### Redistibution around the World: Causes and Consequences

Jukka Pirttilä, Markus Jäntti, Risto Rönkkö Session 9.8 Room 9206 This paper re-examines the determinants and consequences of redistribution in light of improved data and methods relative to earlier literature. In particular, we use the latest version of the UNU-WIDER's Income Inequality Database to have the best available estimates of both pre- and post-redistribution inequality for the largest set of countries and periods. We also tackle head-on problems of related to model specification that risks generating large biases in estimates because of mechanical associations between variables. The paper also shows how earlier results on the determinants of redistribution and the impacts of redistribution on growth can be misleading.

JEL Codes: H11, O11, O47.

Link to the PDF file

## Fiscal Policy, Income Redistribution and Poverty Reduction in Low and Middle Income Countries

Nora Lustig Session 9.8 Room 9206

Current policy discussion focuses primarily on the power of fiscal policy to reduce inequality. Yet, comparable fiscal incidence analysis for 28 low and middle income countries reveals that, although fiscal systems are always equalizing, that is not always true for poverty. In Ethiopia, Tanzania, Ghana, Nicaragua, and Guatemala the extreme poverty headcount ratio is higher after taxes and transfers (excluding in-kind transfers) than before. In addition, to varying degrees, in all countries a portion of the poor are net payers into the fiscal system and are thus impoverished by the fiscal system. Consumption taxes are the main culprits of fiscally-induced impoverishment. Net direct taxes are always equalizing and indirect taxes net of subsidies are equalizing in nineteen countries of the 28. While spending on pre-school and primary school is pro-poor (i.e., the per capita transfer declines with income) in almost all countries, pro-poor secondary school spending is less prevalent, and tertiary education spending tends to be progressive only in relative terms (i.e., equalizing but not pro-poor). Health spending is always equalizing but not always pro-poor. More unequal countries devote more resources to redistributive spending and appear to redistribute more. The latter, however, is not a robust result across specifications.

JEL Codes: H22, H5, D31

Link to the PDF file

#### Redistribution and Insurance in Welfare States around the World

Charlotte Bartels, Dirk Neumann Session 9.8 Room 9206

This paper sheds light on the empirically prevalent mix of redistribution and insurance in different welfare states. Whereas redistribution in a one-year-period framework is an empirically intensely studied question, insurance, understood as the income-smoothing function of welfare states, is addressed to a much smaller extent. We exploit panel data for Australia, Germany, Korea, Switzerland, the UK and the US from the Cross-National Equivalent File (CNEF) and for selected countries using EU-SILC data. Our results suggest that a substantial share of annual redistribution turns out to serve as individual insurance in a longer perspective, even for a few years. First regression results show that the higher the share of elderly, the more important is income smoothing.

JEL codes: D31, D63, H53, H55, I38

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