42nd NES Research Conference

November 29-30, 2018

Thursday, November 29

Session 1 Micro Theory 9.30 – 11.00

Ozgur Evren and Farhad Husseinov (Ada University)

Extension of Monotonic Functions and Representation of Preferences

Consider a dominance order $\succsim$ on a topological space X, such as the "greater than or equal to" relation on a function space, or stochastic dominance relations on spaces of probability measures. Given a compact set $K \subseteq X$, we study when a continuous function $f:K \to R$ that is strictly monotonic with respect to $\succsim$ can be extended to a function on the whole space X that is also strictly monotonic and continuous. We show that such extensions exist for translation invariant dominance relations on a large class of topological vector spaces. Furthermore, when X is relatively small, topologically, then translation invariance or a vector structure are no longer needed. Several examples illustrate how our extension theorems can be used in decision theoretic representation problems. Special attention is given to representation of revealed preferences. Most notably, we provide a behavioral characterization of a choice correspondence that gathers all maximizers of a collection of continuous and strictly monotonic functions. As in Afriat's classical theorem on rationalizable consumer behavior, our representation allows for a small data set, which makes it well suited for empirical exercises. In addition, the representation functions in a flexible choice environment that goes beyond the classical consumer theory.

Andrei Savochkin and Efe A. Ok (New York University)

The Power of Suggestion: Uncertainty Made Objective

Ethymios Athanasiou and Giacomo Valletta (EDHEC Business School)

The Trouble With Groves: Revisiting the Classical Pure Public Good Problem

We discuss the problem of procuring a single pure public good under the assumption that preferences are quasilinear. We concentrate on the class of strategy-proof, anonymous and feasible mechanisms that are not dominated by another strategy-proof, anonymous and feasible mechanism. We identify reasonable mechanisms within this class. Our endeavor is motivated by the fact that Groves mechanisms, with the exception of the Pivotal mechanism, are typically dominated.

Alexey Kushnir and Alfred Galichon (New York University)

Monotonicity and Implementability: Beyond Convex Domains

We use insights from combinatorial Hodge theory and algebraic topology to analyze how incentive compatibility constraints shape the set of implementable deterministic allocation rules. For simply-connected domains, we show that 2-cyclic monotonicity is sufficient for implementability under an additional condition on an allocation rule. The additional condition ensures that local incentive compatibility implies global incentive compatibility. The additional condition is redundant for convex, single-peaked preferences, and gross-substitute domains.

Session 2 Macro 12.00 – 13.30

Valery Charnavoki

Monetary and Exchange Rate Policy in Emerging Market Economies: Evidence from Mexico

This paper presents a Bayesian SVAR model of an emerging market economy using Mexico as a representative case study. Following the methodology of Baumeister & Hamilton (2015), I use sign restrictions combined with prior information on the values of structural parameters to identify the effects of exchange rate, monetary policy and international reserves shocks on the Mexican economy. The model is estimated for the periods before and after the adoption of an inflation targeting framework in 2001 and confirms a significant change in the implementation of monetary and exchange rate policies in Mexico during this period. The effects of monetary policy, exchange rate and international reserves shocks are broadly consistent with economic theory. Besides, the paper confirms a weaker pass-through of exchange rates to inflation and interest rates and more active role of the interest rate policy after the adoption of inflation targeting, as well as a strong contractionary effect of large negative exchange rate shocks.

Gerhard Toews and Torfinn Harding (NHH Norwegian School of Economics) and Radek Stefanski (University of St Andrews)

Boom Goes the Price: Giant Resource Discoveries and Real Exchange Rate Appreciation

We estimate the effect of giant oil and gas discoveries on bilateral real exchange rates. The size and plausibly exogenous timing of such discoveries make them ideal for identifying the effects of a resource boom on prices. We find that a giant discovery with the value of a country's GDP appreciates the real exchange rate by 14% within 10 years following the discovery. The appreciation is driven by the prices of non-tradable goods, which is in line with the `traditional' theory of exchange rates. Our finding provides direct evidence on the appreciation channel central to the theories on the `Dutch disease' and the `Balassa-Samuelson effect'.

Konstantin Egorov and Dmitry Mukhin (Yale University)

The Optimal Monetary Policy under Dollar Pricing

The recent empirical evidence shows that most international prices are sticky in dollars. This paper studies the optimal monetary policy and the welfare implications of dollar pricing in a context of an open economy model with nominal rigidities. We establish the following results: 1) as in a closed economy, the optimal policy in both the U.S. and other economies stabilizes prices of local producers; 2) this policy generates asymmetric international spillovers such that the U.S. has a free floating exchange rate and an independent monetary policy, while other countries peg their exchange rates to the dollar; 3) capital controls cannot eliminate the negative spillovers on non-U.S. economies; 4) the U.S. gains from dollar pricing relative to the rest of the world, but loses relative to the case when all countries set prices in the currency of exporter; 5) countries can benefit from forming a currency union such as the Eurozone if the trade flows with other economies switch from the dollar to the new currency.

Marta Troya Martinez and Liam Wren-Lewis (Paris School of Economics)

Managing Relational Contracts

Relational contracts are typically modeled as being between a principal and an agent, such as a firm owner and a supplier. Yet in a variety of organizations relationships are overseen by an intermediary such as a manager. Such arrangements open the door for collusion between the manager and the agent. This paper develops a theory of such managed relational contracts. We show that managed relational contracts differ from principal-agent ones in important ways. First, kickbacks from the agent can help solve the manager's commitment problem. When commitment is difficult, this can result in higher agent effort than the principal could incentivize directly. Second, making relationships more valuable enables more collusion and hence can reduce effort. We also analyze the principal's delegation problem and show that she may or may not benefit from entrusting the relationship to a manager.

Sergey Izmalkov and Filippo Balestrieri (Analysis Group) and Joao Leao (Instituto Universitário de Lisboa)

A New Simplex Model of Spatial Competition

We offer a new model of spatial competition of many firms that naturally extends the Hotelling model with two competing firms on a segment and overcomes deficiencies of existing spatial competition models for 3 or more firms. The key innovation is the notion of distance from customer location (set of ideal product characteristics) to each product. Each firm (its product) is specified by a location in a space of product characteristics and the direction (vector) along which its product is to be evaluated. The distance from any customer to the firm is computed along this direction, as the shortest distance between the firm and the hyperplane orthogonal to the vector and passing through the customer. With this notion we obtain several desirable features. First, for a bounded set of customers, unlike models with Euclidean distance, any product demand for any vector of prices is a convex polyhedron. This means, in particular, that demands and best responses in prices are easy to compute, interpret, and visualize. Second, we can extend the competition between firms to include lotteries. As in the 2-firm linear Hotelling model, any customer located between the firms obtains the same utility from a 1/2-1/2 lottery, in our model any customer in the N-1-dimensional regular simplex, with N firms located at the vertices and directions pointing to the center, obtains the same utility from the lottery that has equal odds (1/N) of receiving each product. Demand for any lottery (given the set of other products and lotteries offered) is also a convex polyhedron. We demonstrate how the model can be applied to analyze cartels and competition of 3 or more firms (where in particular, lotteries do emerge as the outcome).

Daria Dzyabura and Raluca M. Ursu (Stern School of Business)

Product Rankings with Consumer Search

In many markets, consumers make choices by examining products from a ranked list. Searching a product is costly and this cost is higher for products presented later in the list. In this article, we investigate how an intermediary should optimally order products for consumers who search sequentially, when their search costs depend on the position of a product in the ranked list. We show that the optimal product ranking prioritizes options that are less preferred by the consumer. This result is robust to different revenue structures of the intermediary and to different consumer and firm decision problems. Finally, we validate our results in a proof-of-concept experiment, and discuss implications for ranking systems.

Mikhail Drugov and Dmitry Ryvkin (Florida State University)

The Shape of Luck, Competition and Prizes in Tournaments

Tournaments are settings where players' performance is determined jointly by effort and luck, and top performers are rewarded. We study how the ``shape of luck'' -- the details of the distribution of performance shocks -- affects players' incentives in tournaments. The focus is on the effect of competition, defined as the number of rivals a player faces, which can be deterministic or stochastic. We show that this effect on the individual and aggregate efforts in tournaments depends critically on the shape of the density and failure (hazard) rate of the distribution of shocks. For example, when shocks have heavy tails, aggregate effort can decrease with stronger competition. Another question is the optimal distribution of prizes in the tournaments. We show that it is determined by the failure rate. While a winner-take-all prize schedule maximizes aggregate effort for light-tailed shocks, prize sharing becomes optimal when shocks acquire heavy tails, increasingly so following a skewness order.

Friday, November 30

Session 4 Political Economy 9.30 – 11.00

Ruben Enikolopov and Leonardo Burzstyn (University of Chicago) and Georgy Egorov (Kellogg School of Management) and and Maria Petrova (NES and Universitat Pompeu Fabra)

Social Media and Xenophobia: Evidence from Russia

Michele Valsecchi

To Russia with Love: How Sanctions affect Elections

The primary goal of sanctions is to "discipline" governments of targeted countries. They were widely used in the past and they are used today. However, little is known about their effect. In this paper we take advantage of the sanctions that EU and partner countries implemented on Russia in 2014 (and the embargo that Russia responded with), together with heterogeneity in trade losses across Russia, to estimate the effect of the sanctions on political behavior in sanctioned countries. Preliminary results suggest that sanctions might have highly unintended effects.

Andrey Markevich and Paul Castañeda Dower (University of Wisconsin-Madison)

Democratic Support for the Bolshevik Revolution: An Empirical Investigation of 1917 Constituent Assembly Elections

Scholars have long-debated the causes of popular support for the Russian Revolution and how this support translated into successful regime change. We systematically investigate cross-district and cross-city variation in popular support for the Bolsheviks using voting outcomes of the All Russian 1917 Constituent Assembly elections, occurring right after the Bolsheviks seized power. We find that the Bolsheviks managed to mobilize more popular support in districts with more of a presence of industrial workers, Russian-speaking peasants and soldiers. However, we show that politics rather than fundamentals explain the variation in pro-Bolshevik voting and the policies that supported this coalition was hardly stable, forewarning the command economy to come.

Pavle Radicevic and Chang-Mo Kang (University of New South Wales)

Ownership Structure, Acquisitions, and Managerial Incentives

This paper examines how acquisitions, motivated by pursuit of operating synergies, mitigate managerial agency problems and how this governance function of acquisitions interacts with the ownership structure of target firms. We model a firm in which the manager has private information about the state of economy and may hide her under-provision of effort by underreporting the state to shareholders. Acquisitions alleviate the agency problem since managerial underreporting makes a firm undervalued in the market and, thus, makes it more attractive target for potential bidders who can learn the state while valuing the operating synergies. Our model analysis shows that, while the control premium required by controlling shareholders reduces the likelihood of acquisition incidence, it can strengthen the managerial disciplinary effect of acquisitions for high-synergy potential targets, i.e., the firms that tend to offer large operating synergies to potential acquirers. Our analysis provides a number of novel empirical predictions on the correlation between the firm's synergy potential, ownership structure and other governance mechanisms, and also offers policy implications regarding the social optimality of ownership concentration.

Hosny Zoabi and Alexey Khazanov (Boston College) and Omer Moav (University of Warwick) and Zvika Neeman (Tel Aviv University)

The Microfinance Disappointment: An Explanation Based on Risk Aversion

Recent research indicates that microcredit has not contributed significantly to poverty reduction. Take up of affordable credit by the poor for investment in businesses, education and health, turned out to be very low. We argue that this can be explained by risk aversion, when investment affects the probability of success of a risky project. Our model abstracts from fixed costs in the production technology, commonly assumed in the existing literature. There are no imperfections in the loan market, and we abstract from assumptions about false beliefs by the poor regarding the production function or other behavioral assumptions. We conclude that to facilitate investment and thereby reduce poverty, policy should be aimed at reducing the risk faced by the poor.

Carsten Sprenger and Evgeny Mayorov (Financial Research Institute of the Russian Ministry of Finance)

CEO Characteristics, Political Connections and Company Performance

This paper has two main goals: First, we aim to describe the biographical background of the current Russian business elite, specifically the CEOs of the 435 largest Russian companies during the period from 2005 to 2016. This includes characteristics such as age, gender, nationality, educational background, career path, and political connections. To this end, we collected detailed biographical information on about 1,100 CEOs. To the best of our knowledge, no such study currently exists for a longer time span and a reasonably large sample of companies. The second goal is to relate these characteristics to company performance, controlling for other factors such as the ownership structure of the company. In particular, we stress the role of political connections measured as any past or current leading position in public administration, in the legislative, as well as in the military or security forces. The case of Russia seems an interesting field of study because of the wide variation in educational and career backgrounds where educational decisions have been taken to a large extent under the communist system, because of the alleged close relationship between big business and politics, two financial crisis (in 2008/09 and 2014) and the transfer of power from founders to professional CEOs during the sample period.

Anna Obizhaeva and Stepan Gorban (NES) and Yajun Wang (Robert H. Smith School of Business, University of Maryland)

Trading in Crowded Markets

We study crowded markets using a symmetric continuous-time model with strategic informed traders. We model crowdedness by assuming that traders may have incorrect beliefs about the number of smart traders in the market and the correlation among private signals, which distort their inference, trading strategies, and market prices. If traders underestimate the crowdedness, then markets are more liquid, both permanent and temporary market depths tend to be higher, traders take larger positions and trade more on short-run profit opportunities. In contrast, if traders overestimate the crowdedness, then traders believe markets to be less liquid, they are more cautious in both trading on their information and supplying liquidity to others; fears of crowded markets may also lead to "illusion of liquidity" so that the actual endogenous market depth is even lower than what traders believe it to be. Crowdedness makes markets fragile, because flash crashes, triggered whenever some traders liquidate large positions at fire-sale rates, tend to be more pronounced.

Session 6 Econometrics and Labour 15.00 – 16.30

Evgeny Yakovlev

Industry Policies and Sex Ratio at Birth

We show that Russia, similar to other countries has imbalance of ratio of boys to girls at birth (so-called sex ratio). We also show that sex ratio jumped after collapse of Soviet Union. Similar to other studies we show that among new born children in families of migrants from places that have preferences for sons sex ratio is higher. We also show that the excess of adult females in local marriage markets as well as persistent historical excess of females in a locality associated with higher sex ratio. Our estimates suggest that son preferences results in losing 8000 girls annually.

Olga Kuzmina and Catherine Thomas (London School of Economics)

Innovation and the Structure of Labor Contracts

We exploit the appealing institutional setting of the Spanish labor market to show that the use of more flexible (shorter and cheaper-to-terminate) contracts with labor increases firms' innovation. We distinguish between different types of innovation (frontier vs adoptive, domestic vs imported technology) to shed light on the mechanism behind the effect. The evidence is consistent with both flexible labor contracts reducing financial constraints of the firm, but at the expense of lower human capital investment. We build the identification strategy on the exogenous inter-temporal and cross-regional variation in government programs, which aimed at an increase in worker job security, and discouraged firms from using the more flexible (fixed-term) contracts. This setting, akin to a natural experiment, allows us to identify the effects of interest in the instrumental variables framework, also controlling for unobserved heterogeneity.

Stanislav Anatolyev and Olga Kuzmina (NES)

Weak Instrument Robust t and Wald Tests

We propose tests of hypotheses for structural parameter values in linear homoskedastic instrumental variables models with possibly weak instruments. The novelty is conditioning on certain observable values that proxy, to some extent, the unknown parameters that influence sizes of the conventional t and Wald tests. The p-values for the modified t test can be found from an explicit formula, while the modified Wald test requires numerical integration of dimensionality of endogenous regressors. We illustrate how the modified tests work in simulations and in an empirical application.

Keynote Lecture 17.00 – 18.00

Jean-Marie Dufour (McGill University)

Exact and Asymptotic Identification-Robust Inference for Dynamic Structural Equations with an Application to New Keynesian Phillips Curves

Many models in econometrics involve endogeneity and lagged dependent variables. We start by observing that usual identification-robust (IR) tests are unreliable when model variables are nonstationary or nearly nonstationary. We propose IR methods which are also robust to nonstationarity: two Anderson-Rubin type procedures and two split-sample procedures. To the best of our knowledge, this paper is the first to deal with weak identification and nonstationarity together. Our procedures are also robust to missing instruments. For distributional theory, three different sets of assumptions are considered. First, on assuming Gaussian structural errors, we show that three of the proposed statistics follow the standard F distribution. Second, for more general cases, we assume that the distribution of errors is completely specified up to an unknown scale factor, allowing the Monte Carlo test method to be applied. This assumption enables one to deal with non-Gaussian error distributions. For example, even when errors follow heavy-tailed distribution, such as the Cauchy distribution or more generally the family of stable distributions – which may not have moments and thus make inference difficult – our procedures provide simple and exact solutions. Third, we establish the asymptotic validity of our procedures under quite general distributional assumptions. We present simulation results showing that our procedures control their level correctly and have good power properties. The methods are applied to an empirical example, the New Keynesian Phillips curve, in which both weak identification and nonstationarity present challenges. The results of this empirical study suggest forward-looking behavior of U.S. inflation.