Literature Report

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Abstract

Endogenous Depth of Reasoning

- Review of Economic Studies---2016---Larbi Alaoui,Antonio Penta

We introduce a model of strategic thinking in games of initial response. Unlike standard models of strategic thinking, in this framework the player's "depth of reasoning" is endogenously determined, and it can be disentangled from his beliefs over his opponent's cognitive bound. In our approach, individuals act as if they follow a cost–benefit analysis. The depth of reasoning is a function of the player's cognitive abilities and his payoffs. The costs are exogenous and represent the game-theoretical sophistication of the player; the benefit instead is related to the game payoffs. Behaviour is in turn determined by the individual's depth of reasoning and his beliefs about the reasoning process of the opponent. Thus, in our framework, payoffs not only affect individual choices in the traditional sense, but they also shape the cognitive process itself. Our model delivers testable implications on players' chosen actions as incentives and opponents change. We then test the model's predictions with an experiment. We administer different treatments that vary beliefs over payoffs and opponents, as well as beliefs over opponents' beliefs. The results of this experiment, which are not accounted for by current models of reasoning in games, strongly support our theory. We also show that the predictions of our model are highly consistent, both qualitatively and quantitatively, with well-known unresolved empirical puzzles. Our approach therefore serves as a novel, unifying framework of strategic thinking that allows for predictions across games.

Climate and the Emergence of Global Income Differences

- Review of Economic Studies---2016---Thomas Andersen,Carl-Johan Dalgaard,Pablo Selaya

The latitude gradient in comparative development is a striking fact: as one moves away from the equator, economic activity rises. While this regularity is well known, it is not well understood. Perhaps the strongest correlate of (absolute) latitude is the intensity of ultraviolet radiation (UV-R), which epidemiological research has shown to be a cause of a wide range of diseases. We establish that UV-R is strongly and negatively correlated with economic activity, both across and within countries. We propose and test a mechanism that links UV-R to current income differences via the impact of disease ecology on the timing of the take-off to sustained growth.

Self-Fulfilling Credit Cycles

- Review of Economic Studies---2016---Costas Azariadis,Leo Kaas,Yi Wen

In U.S. data 1981–2012, unsecured firm credit moves procyclically and tends to lead GDP, while secured firm credit is acyclical; similarly, shocks to unsecured firm credit explain a far larger fraction of output fluctuations than shocks to secured credit. In this article, we develop a tractable dynamic general equilibrium model in which unsecured firm credit arises from self-enforcing borrowing constraints, preventing an efficient capital allocation among heterogeneous firms. Unsecured credit rests on the value that borrowers attach to a good credit reputation which is a forward-looking variable. We argue that self-fulfilling beliefs over future credit conditions naturally generate endogenously persistent business-cycle dynamics. A dynamic complementarity between current and future borrowing limits permits uncorrelated sunspot shocks to unsecured debt to trigger persistent aggregate fluctuations in both secured and unsecured debt, factor productivity, and output. We show that these sunspot shocks are quantitatively important, accounting for around half of output volatility.

Torture and the Commitment Problem

- Review of Economic Studies---2016---Sandeep Baliga,Jeffrey Ely

We study torture as a mechanism for extracting information from a suspect who may or may not be informed. We show that a standard rationale for torture generates two commitment problems. First, the principal would benefit from a commitment to torture a suspect he knows to be innocent. Secondly, the principal would benefit from a commitment to limit the amount of torture faced by the guilty. We analyse a dynamic model of torture in which the credibility of these threats and promises is endogenous. We show that these commitment problems dramatically reduce the value of torture and can even render it completely ineffective. We use our model to address questions such as the effect of enhanced interrogation techniques, rights against indefinite detention, and delegation of torture to specialists.

Robustly Coalition-Proof Incentive Mechanisms for Public Good Provision are Voting Mechanisms and Vice Versa

- Review of Economic Studies---2016---Felix J. Bierbrauer,Martin Hellwig

We study the relation between mechanism design and voting in public good provision. If incentive mechanisms must satisfy conditions of robust coalition-proofness as well as robust incentive compatibility, the participants' contributions to public good provision can only depend on the level of the public good that is provided and that level can only depend on the population shares of people favouring one level over another. For a public good that comes as a single indivisible unit the outcome depends on whether or not the share of votes in favour of provision exceeds a specified threshold. With more provision levels for the public good, more complicated mechanisms can be used but they still involve the counting of votes rather than any measurement of the participants' willingness to pay. The article thus provides a foundation for the use of voting mechanisms.

Health, Risky Behaviour and the Value of Medical Innovation for Infectious Disease

- Review of Economic Studies---2016---Tat Y. Chan,Barton Hamilton,Nicholas W. Papageorge

We propose a dynamic framework to study the value of medical innovation in the context of infectious disease. We apply our framework to evaluate an HIV treatment breakthrough known as HAART. The model captures how, in lowering both the expected cost and likelihood of HIV infection, HAART reduced the implicit price of risky sex. Forward-looking agents responded by optimally shifting their behaviour. The model also imposes equilibrium constraints, explicitly capturing how optimal shifts in behaviour affect equilibrium choices by changing both infection probabilities and the ease of finding partners willing to engage in risky sex. Using the estimated model, we conduct counterfactual simulations to compute the value of HAART from the perspective of uninfected agents. This includes the option value of the innovation along with value accruing from changes in sex behaviour in response to HAART introduction. We also calculate the added value of a fully functional vaccine from the perspective of both infected and uninfected agents, where infected agents benefit from a vaccine due to resulting shifts in market equilibrium.

Shrinkage Estimation of High-Dimensional Factor Models with Structural Instabilities

- Review of Economic Studies---2016---Xu Cheng,Zhipeng Liao,Frank Schorfheide

In large-scale panel data models with latent factors the number of factors and their loadings may change over time. Treating the break date as unknown, this article proposes an adaptive group-LASSO estimator that consistently determines the numbers of pre- and post-break factors and the stability of factor loadings if the number of factors is constant. We develop a cross-validation procedure to fine-tune the data-dependent LASSO penalties and show that after the number of factors has been determined, a conventional least-squares approach can be used to estimate the break date consistently. The method performs well in Monte Carlo simulations. In an empirical application, we study the change in factor loadings and the emergence of new factors in a panel of U.S. macroeconomic and financial time series during the Great Recession.

Learning and Coordination in the Presidential Primary System

- Review of Economic Studies---2016---George Deltas,Helios Herrera,Mattias K Polborn

In elections with three or more candidates, coordination among like-minded voters is an important problem. We analyse the trade-off between coordination and learning about candidate quality under different temporal election systems in the context of the U.S. presidential primary system. In our model, candidates with different policy positions and qualities compete for the nomination, and voters are uncertain about the candidates' valence. This setup generates two effects: vote splitting (i.e. several candidates in the same policy position compete for the same voter pool) and voter learning (as the results in earlier elections help voters to update their beliefs on candidate quality). Sequential voting minimizes vote splitting in late districts, but voters may coordinate on a low-quality candidate. Using the parameter estimates obtained from all the Democratic and Republican presidential primaries during 2000–12, we conduct policy experiments such as replacing the current system with a simultaneous system, adopting the reform proposal of the National Association of Secretaries of State, or imposing party rules that lead to candidate withdrawal when prespecified conditions are met.

Social Experimentation with Interdependent and Expanding Technologies

- Review of Economic Studies---2016---Umberto Garfagnini,Bruno Strulovici

How do successive, forward-looking agents experiment with interdependent and endogenous technologies? In this article, trying a radically new technology not only is informative of the value of similar technologies, but also reduces the cost of experimenting with them, in effect expanding the space of affordable technologies. Successful radical experimentation has mixed effects: it improves the immediate outlook for further experimentation but decreases the value and the marginal value of experimentation in a longer term, resulting in less ambitious "incremental" experimentation and in a reduced size of radical experimentation. Incremental experimentation lowers the option value of similar technologies, which may spur a new wave of radical experimentation. However, experimentation eventually stagnates for all parameters of the model.

Can Self-Help Groups Really Be ”Self-Help”?

- Review of Economic Studies---2016---Brian P. Greaney,Joseph Kaboski,Eva Van Leemput

We provide an experimental and theoretical evaluation of a cost-reducing innovation in the delivery of "self-help group" microfinance services, in which privatized agents earn payments through membership fees for providing services. Under the status quo, agents are paid by an outside donor and offer members free services. In our multi-country randomized control trial, we evaluate the change in this incentive scheme on agent behaviour and performance, and on overall village-level outcomes. We find that privatized agents start groups, attract members, mobilize savings, and intermediate loans at similar levels after a year but at much lower costs to the NGO. At the village level, we find higher levels of borrowing, business-related savings, and investment in business. Examining mechanisms, we find that self-help groups serve more business-oriented clientele when facilitated by agents who face strong financial incentives.

First Impressions Matter: Signalling as a Source of Policy Dynamics

- Review of Economic Studies---2016---Stephen Hansen,Michael McMahon

We provide the first direct empirical support for the importance of signalling in monetary policy by testing two key predictions from a novel structural model. First, all policymaker types should become less tough on inflation over time and secondly, types that weigh output more should have a more pronounced shift. Voting data from the Bank of England's Monetary Policy Committee strongly support both predictions. Counterfactual results indicate signalling has a substantial impact on interest rates over the business cycle, and improves the committee designer's welfare. Implications for committee design include allowing regular member turnover and transparency regarding publishing individual votes.

The Democratization of Credit and the Rise in Consumer Bankruptcies

- Review of Economic Studies---2016---Igor Livshits,James C. Mac Gee,Michele Tertilt,James MacGee

Financial innovations are a common explanation for the rise in credit card debt and bankruptcies. To evaluate this story, we develop a simple model that incorporates two key frictions: asymmetric information about borrowers' risk of default and a fixed cost of developing each contract lenders offer. Innovations that ameliorate asymmetric information or reduce this fixed cost have large extensive margin effects via the entry of new lending contracts targeted at riskier borrowers. This results in more defaults and borrowing, and increased dispersion of interest rates. Using the Survey of Consumer Finances and Federal Reserve Board interest rate data, we find evidence supporting these predictions. Specifically, the dispersion of credit card interest rates nearly tripled while the "new" cardholders of the late 1980s and 1990s had riskier observable characteristics than existing cardholders. Our calculations suggest that these new cardholders accounted for over 20% of the rise in bank credit card debt and delinquencies between 1989 and 1998.

Measuring Uncertainty about Long-Run Predictions

- Review of Economic Studies---2016---Ulrich K. Müller,Mark W. Watson

Long-run forecasts of economic variables play an important role in policy, planning, and portfolio decisions. We consider forecasts of the long-horizon average of a scalar variable, typically the growth rate of an economic variable. The main contribution is the construction of prediction sets with asymptotic coverage over a wide range of data generating processes, allowing for stochastically trending mean growth, slow mean reversion, and other types of long-run dependencies. We illustrate the method by computing prediction sets for 10- to 75-year average growth rates of U.S. real per capita GDP and consumption, productivity, price level, stock prices, and population.

Estimating Strategic Models of International Treaty Formation

- Review of Economic Studies---2016---Ulrich Wagner

This article develops an empirical framework for analysing the timing of international treaties. A treaty is modelled as a dynamic game among governments that decide on participation in every period. The net benefit of treaty membership increases over time. Spillovers among members and non-members accelerate or delay treaty formation by transforming participation into a strategic complement or substitute, respectively. The predictions of the model inform the estimation of the structural parameters, based on a cross section of treaty ratification dates. With this approach, I estimate the sign and magnitude of strategic interaction in the ratification of the Montreal Protocol, in the formation of Europe's preferential trade agreements, and in the growth of Germany's network of bilateral investment treaties. Through a series of counterfactual experiments, I explore different mechanisms that give rise to strategic interaction in the formation of these treaties.

Do Prices Determine Vertical Integration?

- Review of Economic Studies---2016---Laura Alfaro,Paola Conconi,Harald Fadinger,Andrew F. Newman

A number of theories in organizational economics and industrial organization suggest that vertical integration, while costly, increases productivity. It follows from firms' maximizing behaviour that higher prices in the product market ought to induce more integration. Trade policy provides a source of exogenous price variation to assess this prediction: higher tariffs should lead to higher prices and, therefore, to more integration. We construct firm-level vertical integration indices for a large set of countries and industries and exploit variation in applied most-favoured-nation tariffs to examine the impact of tariffs on firm boundaries. The empirical results provide strong support for the view that higher output prices generate more vertical integration. Our estimates of the average price elasticity of vertical integration are in the range 0.4–2.

Estimation of Dynamic Discrete Choice Models in Continuous Time with an Application to Retail Competition

- Review of Economic Studies---2016---Peter Arcidiacono,Patrick Bayer,Jason Blevins,Paul B. Ellickson

This article develops a dynamic model of retail competition and uses it to study the impact of the expansion of a new national competitor on the structure of urban markets. In order to accommodate substantial heterogeneity (both observed and unobserved) across agents and markets, the article first develops a general framework for estimating and solving dynamic discrete choice models in continuous time that is computationally light and readily applicable to dynamic games. In the proposed framework, players face a standard dynamic discrete choice problem at decision times that occur stochastically. The resulting stochastic-sequential structure naturally admits the use of conditional choice probability methods for estimation and makes it possible to compute counterfactual simulations for relatively high-dimensional games. The model and method are applied to the retail grocery industry, into which Walmart began rapidly expanding in the early 1990s, eventually attaining a dominant position. We find that Walmart's expansion into groceries came mostly at the expense of the large incumbent supermarket chains, rather than the single-store outlets that bore the brunt of its earlier conquest of the broader general merchandise sector. Instead, we find that independent grocers actually thrive when Walmart enters, leading to an overall reduction in market concentration. These competitive effects are strongest in larger markets and those into which Walmart expanded most rapidly, suggesting a diminishing role of scale and a greater emphasis on differentiation in this previously mature industry.

Electoral Rules and Political Selection: Theory and Evidence from a Field Experiment in Afghanistan

- Review of Economic Studies---2016---Andrew Beath,Fotini Christia,Georgy Egorov,Ruben

Enikolopov

Voters commonly face a choice between competent candidates and those with policy preferences similar to their own. This article explores how electoral rules, such as district magnitude, mediate this trade-off and affect the composition of representative bodies and the quality of policy outcomes. We show formally that anticipation of bargaining over policy causes voters in elections with multiple single-member districts to prefer candidates with polarized policy positions over more competent candidates. Results from a unique field experiment in Afghanistan are consistent with these predictions. Specifically, representatives selected by elections with a single multi-member district are better educated and exhibit less extreme policy preferences.

Trading Dynamics with Adverse Selection and Search: Market Freeze, Intervention and Recovery

- Review of Economic Studies---2016---Jonathan Chiu,Thorsten Koeppl

We study trading dynamics in an asset market where the quality of assets is private information and finding a counterparty takes time. When trading ceases in equilibrium as a response to an adverse shock to asset quality, a government can resurrect trading by buying up lemons which involves a financial loss. The optimal policy is centred around an announcement effect where trading starts already before the intervention for two reasons. First, delaying the intervention allows selling pressure to build up thereby improving the average quality of assets for sale. Secondly, intervening at a higher price increases the return from buying an asset of unknown quality. It is optimal to intervene immediately at the lowest price when the market is sufficiently important. For less important markets, when the shock to quality and search frictions are small, it is optimal to rely on the announcement effect. Here delaying the intervention and fostering the effect by intervening at the highest price tend to be complements.

Towards a Micro-Founded Theory of Aggregate Labour Supply

- Review of Economic Studies---2016---Andres Erosa,Luisa Fuster,Gueorgui Kambourov

We build a heterogeneous agents life cycle model that captures a large number of salient features of individual male labour supply over the life cycle, by education, both along the intensive and extensive margins. The model provides an aggregation theory of individual labour supply, firmly grounded on individual-level micro-evidence, and is used to study the aggregate labour supply responses to changes in the economic environment. We find that the aggregate labour supply elasticity to a transitory wage shock is 1.75, with the extensive margin accounting for 62% of the response. Furthermore, we find that the aggregate labour supply elasticity to a permanent-compensated wage change is 0.44.

Optimal Contracts for Experimentation

- Review of Economic Studies---2016---Marina Halac,Navin Kartik,Qingmin Liu

This paper studies a model of long-term contracting for experimentation. We consider a principal–agent relationship with adverse selection on the agent’s ability, dynamic moral hazard, and private learning about project quality. We find that each of these elements plays an essential role in structuring dynamic incentives, and it is only their interaction that generally precludes efficiency. Our model permits an explicit characterization of optimal contracts.

Should Unemployment Insurance Vary with the Unemployment Rate? Theory and Evidence

- Review of Economic Studies---2016---Kory Kroft,Matthew Notowidigdo

We study how the marginal welfare gain from increasing the unemployment insurance (UI) benefit level varies over the business cycle. We do this by estimating how the moral hazard cost and the consumption smoothing benefit of UI vary with labour market conditions, which we identify using variation in the interaction of UI benefit levels with the unemployment rate within U.S. states over time. We find that the moral hazard cost is procyclical, greater when the unemployment rate is relatively low. By contrast, we do not find evidence that the consumption smoothing benefit varies with the unemployment rate. We use these empirical results to estimate the marginal welfare gain, and we find that it is modest on average, but varies positively with the unemployment rate.

Rationally Inattentive Seller: Sales and Discrete Pricing

- Review of Economic Studies---2016---Filip Matejka

Prices tend to remain constant for a period of time and then jump. In the literature, this "rigidity" is usually interpreted to reflect a cost of adjusting prices. This article shows that price rigidity can alternatively reflect optimal price setting when there are no adjustment costs, namely, if the seller is rationally inattentive. The model generates non-trivial pricing patterns that are consistent with the data and that are hard to explain with the traditional adjustment-cost model. In particular, prices are adjusted frequently but move back and forth between a few given values, hazard functions are downward sloping, and responses to persistent shocks are sluggish. These results are obtained in a model that implements rational inattention without simplifying assumptions on the functional forms of the processed signals.

Exclusive Dealing as a Barrier to Entry? Evidence from Automobiles

- Review of Economic Studies---2016---Laura Nurski,Frank Verboven

Exclusive dealing contracts between manufacturers and retailers force new entrants to set up their own costly dealer networks to enter the market. We ask whether such contracts may act as an entry barrier, and provide an empirical analysis of the European car market. We first estimate a demand model with product and spatial differentiation, and quantify consumers' valuations for dealer proximity and dealer exclusivity. We then perform policy counterfactuals to assess the profit incentives and possible entry-deterring effects of exclusive dealing. We find that there are no unilateral incentives to maintain exclusive dealing, but there is a collective incentive for the industry as a whole. Furthermore, a ban on exclusive dealing would raise the smaller entrants' market share. But more importantly, consumers would gain, not so much because of increased price competition, but rather because of the increased spatial availability, which compensates for the demand inefficiency from a loss of dealer exclusivity.

Fiscal Policy in an Unemployment Crisis

- Review of Economic Studies---2016---Pontus Rendahl

This article shows that equilibrium unemployment dynamics can significantly increase the efficacy of fiscal policy. In response to a shock that brings the economy into a liquidity trap, an expansion in government spending increases output and causes a fall in the unemployment rate. Since movements in unemployment are persistent, the effects of current spending prevail into the future, leading to an enduring rise in income. As an enduring rise in income boosts private demand, an increase in government spending sets in motion a virtuous employment-spending spiral with large effects on macroeconomic aggregates.

Optimal Taxation with Rent-Seeking

- Review of Economic Studies---2016---Casey Rothschild,Florian Scheuer

We develop a framework for optimal taxation when agents can earn their income both in traditional activities, where private and social products coincide, and in rent-seeking activities, where private returns exceed social returns either because they involve the capture of pre-existing rents or because they reduce the returns to traditional work. We characterize Pareto optimal income taxes that do not condition on how much of an individual's income is earned in each of the two activities. These optimal taxes feature an externality-corrective term, the magnitude of which depends both on the Pigouvian correction that would obtain if rent-seeking incomes could be perfectly targeted and on the relative impact of rent-seeking externalities on the private returns to traditional and to rent-seeking activities. If rent-seeking externalities primarily affect other rent-seekers, for example, the optimal correction lies strictly below the Pigouvian correction. A calibrated model indicates that the gap between the Pigouvian and optimal correction can be quantitatively important. Our results thus point to a hefty informational requirement for correcting rent-seeking externalities through the income tax code.

Farther on down the Road: Transport Costs, Trade and Urban Growth in Sub-Saharan Africa

- Review of Economic Studies---2016---Adam Storeygard

This article investigates the role of intercity transport costs in determining the income of sub-Saharan African cities. In particular, focusing on fifteen countries whose largest city is a port, I find that an oil price increase of the magnitude experienced between 2002 and 2008 induces the income of cities near that port to increase by 7% relative to otherwise identical cities 500 km farther away. Combined with external estimates, this implies an elasticity of city economic activity with respect to transport costs of 0.28 at 500 km from the port. Moreover, the effect differs by the surface of roads between cities. Cities connected to the port by paved roads are chiefly affected by transport costs to the port, while cities connected to the port by unpaved roads are more affected by connections to secondary centres.

Erratum

- Review of Economic Studies---2016---Xin Meng,Nancy Qian,Pierre Yared

2016

Monetary Shocks in Models with Inattentive Producers

- Review of Economic Studies---2016---Fernando E. Alvarez,Francesco Lippi,Luigi Paciello

We study models where prices respond slowly to shocks because firms are rationally inattentive. Producers must pay a cost to observe the determinants of the current profit maximizing price, and hence observe them infrequently. To generate large real effects of monetary shocks in such a model the time between observations must be long and/or highly volatile. Previous work on rational inattentiveness has allowed for observation intervals that are either constant-but-long (e.g. Caballero, 1989 or Reis, 2006) or volatile-but-short (e.g. Reis's, 2006 example where observation costs are negligible), but not both. In these models, the real effects of monetary policy are small for realistic values of the duration between observations. We show that non-negligible observation costs produce both of these effects: intervals between observations are infrequent and volatile. This generates large real effects of monetary policy for realistic values of the average time between observations.

Ballot Position, Choice Fatigue, and Voter Behaviour

- Review of Economic Studies---2016---Ned Augenblick,Scott Nicholson

In this article, we examine the effect of "choice fatigue" on decision making. We exploit a natural experiment in which voters face the same contest at different ballot positions due to differences in the number of local issues on their ballot. Facing more decisions before a given contest significantly increases the tendency to abstain or rely on decision shortcuts, such as voting for the status quo or the first-listed candidate. We estimate that, without choice fatigue, abstentions would decrease by 8%, and 6% of the propositions in our data set would have passed rather than failed.

Competition for Attention

- Review of Economic Studies---2016---Pedro Bordalo,Nicola Gennaioli,Andrei Shleifer

We present a model of market competition in which consumers' attention is drawn to the products' most salient attributes. Firms compete for consumer attention via their choices of quality and price. Strategic positioning of a product affects how all other products are perceived. With this attention externality, depending on the cost of producing quality some markets exhibit "commoditized" price salient equilibria, while others exhibit "de-commoditized" quality salient equilibria. When the costs of quality change, innovation can lead to radical shifts in markets, as in the case of decommoditization of the coffee market by Starbucks. In the context of financial innovation, the model generates the phenomenon of "reaching for yield".

Referral-based Job Search Networks

- Review of Economic Studies---2016---Christian Dustmann,Albrecht Glitz,Uta Schönberg,Herbert Brücker,Uta Schoenberg

This article derives novel testable implications of referral-based job search networks in which employees provide employers with information about potential new hires that they otherwise would not have. Using comprehensive matched employer–employee data covering the entire workforce in one large metropolitan labour market combined with unique survey data linked to administrative records, we provide evidence that workers earn higher wages and are less inclined to leave their firms if they have obtained their job through a referral. These effects are particularly strong at the beginning of the employment relationship and decline with tenure in the firm, suggesting that firms and workers learn about workers' productivity over time. Overall, our findings imply that job search networks help to reduce informational deficiencies in the labour market and lead to productivity gains for workers and firms.

Confining the Coase Theorem: Contracting, Ownership, and Free-Riding

- Review of Economic Studies---2016---Tore Ellingsen,Elena Paltseva

If individuals own the right to take any action that they please, and are free to contract about behaviour, will outcomes be efficient in all situations? That is, does the Coase theorem hold? We study this classic question through the lens of a non-cooperative model of contract negotiations, considering both compulsory and voluntary participation in negotiations. In either case, we find that all consistent equilibria of the contracting game are efficient in the case of two players. But if participation is voluntary, and there are more than two players, there are situations in which all consistent equilibria are inefficient. Specifically, the provision of public goods tends to be inefficiently low due to strategic abstention from contracting. Free-riding on others' agreements can be avoided if individuals do not own all their actions. When actions involve the use of assets, efficient action ownership may correspond to collective rather than individual asset ownership.

Excusing Selfishness in Charitable Giving: The Role of Risk

- Review of Economic Studies---2016---Christine L. Exley

Decisions involving charitable giving often occur under the shadow of risk. A common finding is that potential donors give less when there is greater risk that their donation will have less impact. While this behaviour could be fully rationalized by standard economic models, this article shows that an additional mechanism is relevant: the use of risk as an excuse not to give. In a laboratory study, participants evaluate risky payoffs for themselves and risky payoffs for a charity. When their decisions do not involve tradeoffs between money for themselves and the charity, they respond very similarly to self risk and charity risk. By contrast, when their decisions force tradeoffs between money for themselves and the charity, participants act more averse to charity risk and less averse to self risk. These altered responses to risk bias participants towards choosing payoffs for themselves more often, consistent with excuse-driven responses to risk. Additional results support the existence of excuse-driven types.

Relationships and Growth: On the Dynamic Interplay between Relational Contracts and Competitive Markets in Economic Development

- Review of Economic Studies---2016---Shingo Ishiguro

This article presents a dynamic general equilibrium model to investigate how different contracting modes based on formal and relational enforcements emerge endogenously and are linked dynamically with the process of economic development. Formal contracts are enforced by third-party institutions (courts), whereas relational contracts are self-enforcing agreements without third-party involvement. The novel feature of our model is that it demonstrates the co-evolution of these different enforcement modes and market equilibrium conditions, all of which are jointly determined. We then characterize the equilibrium paths of such dynamic processes and show the time structure of relational contracting in the process of development. In particular, we show that relational contracting fosters the emergence of a market-based economy in the growth phase of development; however, its role declines as the economy enters a mature phase.

Recursive Lexicographical Search: Finding All Markov Perfect Equilibria of Finite State Directional Dynamic Games

- Review of Economic Studies---2016---Fedor Iskhakov,John Rust,Bertel Schjerning

We define a class of dynamic Markovian games, directional dynamic games (DDG), where directionality is represented by a strategy-independent partial order on the state space. We show that many games are DDGs, yet none of the existing algorithms are guaranteed to find any Markov perfect equilibrium (MPE) of these games, much less all of them. We propose a fast and robust generalization of backward induction we call state recursion that operates on a decomposition of the overall DDG into a finite number of more tractable stage games, which can be solved recursively. We provide conditions under which state recursion finds at least one MPE of the overall DDG and introduce a recursive lexicographic search (RLS) algorithm that systematically and efficiently uses state recursion to find all MPE of the overall game in a finite number of steps. We apply RLS to find all MPE of a dynamic model of Bertrand price competition with cost-reducing investments which we show is a DDG. We provide an exact non-iterative algorithm that finds all MPE of every stage game, and prove there can be only 1, 3, or 5 of them. Using the stage games as building blocks, RLS rapidly finds and enumerates all MPE of the overall game. RLS finds a unique MPE for an alternating move version of the leapfrogging game when technology improves with probability 1, but in other cases, and in any simultaneous move version of the game, it finds a huge multiplicity of MPE that explode exponentially as the number of possible cost states increases.

Bailouts and Financial Fragility

- Review of Economic Studies---2016---Todd Keister

Should policy makers be prevented from bailing out investors in the event of a crisis? I study this question in a model of financial intermediation with limited commitment. When a crisis occurs, the policy maker will respond with fiscal transfers that partially cover intermediaries' losses. The anticipation of this bailout distorts ex ante incentives, leading intermediaries to become excessively illiquid and increasing financial fragility. Prohibiting bailouts is not necessarily desirable, however: while it induces intermediaries to become more liquid, it may nevertheless lower welfare and leave the economy more susceptible to a crisis. A policy of taxing short-term liabilities, in contrast, can both improve the allocation of resources and promote financial stability.

Efficient Coordination in Weakest-Link Games

- Review of Economic Studies---2016---Arno Riedl,Ingrid M. T. Rohde,Martin Strobel

Coordination problems resembling weakest-link games with multiple Pareto ranked equilibria are ubiquitous in the economy and society. This makes it important to understand if and when agents are able to coordinate efficiently. Existing research on weakest-link games shows an overwhelming inability of people to coordinate on efficient equilibria, especially in larger groups. We show experimentally that freedom of neighbourhood choice overcomes the problem and leads to fully efficient coordination. This implies substantial welfare effects with achieved welfare being about 50% higher in games with neighbourhood choice than without it. We identify exclusion of low effort providers who in response start providing high effort as the simple but effective mechanism enforcing efficient coordination. A variety of other treatments show that the efficiency result as well as the identified mechanism are robust to changes in the information condition, payoff specification, and a substantial increase in group size. Moreover, we find that neighbourhood choice boosts efficiency even when exclusion does not materially affect the excluded agent. Our results are widely applicable on the societal and organizational level, e.g. containment of diseases, fight against terrorism, and co-authorship networks.

Airports, Air Pollution, and Contemporaneous Health

- Review of Economic Studies---2016---Wolfram Schlenker,Reed Walker

We link daily air pollution exposure to measures of contemporaneous health for communities surrounding the twelve largest airports in California. These airports are some of the largest sources of air pollution in the US, and they experience large changes in daily air pollution emissions depending on the amount of time planes spend idling on the tarmac. Excess airplane idling, measured as residual daily taxi time, is due to network delays originating in the Eastern US. This idiosyncratic variation in daily airplane taxi time significantly impacts the health of local residents, largely driven by increased levels of carbon monoxide (CO) exposure. We use this variation in daily airport congestion to estimate the population dose-response of health outcomes to daily CO exposure, examining hospitalization rates for asthma, respiratory, and heart-related emergency room admissions. A one standard deviation increase in daily pollution levels leads to an additional $540 thousand in hospitalization costs for respiratory and heart-related admissions for the 6 million individuals living within 10 km (6.2 miles) of the airports in California. These health effects occur at levels of CO exposure far below existing Environmental Protection Agency mandates, and our results suggest there may be sizable morbidity benefits from lowering the existing CO standard.

Landing the First Job: The Value of Intermediaries in Online Hiring

- Review of Economic Studies---2016---Christopher T. Stanton,Catherine Thomas

Online markets for remote labour services allow workers and firms to contract with each other directly. Despite this, intermediaries—called outsourcing agencies—have emerged in these markets. This article shows that agencies signal to employers that inexperienced workers are high quality. Workers affiliated with an agency have substantially higher job-finding probabilities and wages at the beginning of their careers compared to similar workers without an agency affiliation. This advantage declines after high-quality non-affiliated workers receive good public feedback scores. The results indicate that intermediaries have arisen endogenously to permit a more efficient allocation of workers to jobs.

Vertical Integration as a Source of Hold-up

- Review of Economic Studies---2016---Marie-Laure Allain,Claire Chambolle,Patrick Rey

While vertical integration is traditionally seen as a solution to the hold-up problem, this article highlights instead that it can generate hold-up problems—for rivals. We consider a successive duopoly where downstream firms invest and then secure support from an upstream supplier. We first show that vertical integration generates ex ante incentives to create hold-up problems:

an integrated supplier is willing to pre-commit itself to appropriating or dissipating part of its customer's profits, to expose the independent rival to being held-up by the other supplier, and discourage in this way the rival's investment. We then show that, even in the absence of any pre-commitment, vertical integration also creates hold-up problems ex post when degrading the quality of the support provided to one downstream firm benefits its rival. We also provide illustrations in terms of standard industrial organization models and of antitrust cases, and discuss the robustness of the insights.

Search Deterrence

- Review of Economic Studies---2016---Mark Armstrong,Jidong Zhou

We study sales techniques which discourage consumer search by making it harder or more expensive to return to buy after a search for alternatives. It is unilaterally profitable for a seller to deter search under mild conditions, but sellers can suffer when all do so. When a seller cannot commit to its policy, it exploits the inference that those consumers who try to buy later have no good alternative, and in many cases the outcome is as if the seller must make an exploding offer. Search deterrence results in sub-optimal matching of products to consumers and often raises the price consumers pay.

The Sunk-Cost Fallacy in Penny Auctions

- Review of Economic Studies---2016---Ned Augenblick

This article theoretically and empirically analyses behaviour in penny auctions, a relatively new auction mechanism. As in the US dollars or war-of-attrition, players in penny auctions commit higher non-refundable costs as the auction continues and only win if all other players stop bidding. I first show that, in any equilibria that does not end immediately, players bid probabilistically such that the expected profit from every bid is zero. Then, using two large data sets covering 166,000 auctions, I calculate that average profit margins actually exceed 50%. To explain this deviation, I incorporate a sunk-cost fallacy into the theoretical model to generate a set of predictions about hazard rates and player behaviour, which I confirm empirically. While players do (slowly) learn to correct this bias and there are few obvious barriers to competition, activity in the market is rising and concentration remains relatively high.

Trade Induced Technical Change? The Impact of Chinese Imports on Innovation, IT and Productivity

- Review of Economic Studies---2016---Nicholas Bloom,Mirko Draca,John van Reenen

We examine the impact of Chinese import competition on broad measures of technical change—patenting, IT, and TFP—using new panel data across twelve European countries from 1996 to 2007. In particular, we establish that the absolute volume of innovation increases within the firms most affected by Chinese imports in their output markets. We correct for endogeneity using the removal of product-specific quotas following China's entry into the World Trade Organization in 2001. Chinese import competition led to increased technical change within firms and reallocated employment between firms towards more technologically advanced firms. These within and between effects were about equal in magnitude, and account for 14% of European technology upgrading over 2000–7 (and even more when we allow for offshoring to China). Rising Chinese import competition also led to falls in employment and the share of unskilled workers. In contrast to low-wage nations like China, developed countries had no significant effect on innovation.

HIV/AIDS-related Expectations and Risky Sexual Behaviour in Malawi

- Review of Economic Studies---2016---Adeline Delavande,Hans-Peter Kohler

We use probabilistic expectations data elicited from survey respondents in rural Malawi to investigate how risky sexual behaviour may be influenced by individuals' expectations about survival, and future HIV status, which in turn depend on the perceived impact of HIV/AIDS on survival, expectations about own and partner's current HIV status, and expectations about HIV transmission rates. Subjective expectations, in particular about mortality risk but not the risk of living with HIV, play an important role in determining the decision to have multiple sexual partners. Using our estimated parameters, we simulate the impact of various policies that would influence expectations. An information campaign on mortality risk would decrease risky sexual behaviour on average, whereas an information campaign on HIV transmission risks, which tend to be overestimated by respondents, would actually increase risky behaviour. Also, the expansion of anti-retroviral therapy (ART) treatments to all individuals infected with HIV would increase risky sexual behaviour for a quarter of the HIV-negative individuals or those who have not been tested because they are aware that ART increases life expectancy, and thus reduces the cost of becoming HIV positive.

Pricing Network Effects

- Review of Economic Studies---2016---Itay Fainmesser,Andrea Galeotti

The increase in the information that firms can collect or purchase about network effects across consumers motivates two important questions: how does a firm's pricing strategy react to detailed information on network effects? Are the availability and use of such information beneficial or detrimental to consumer surplus? We develop a model in which a monopoly sells a network good and price discriminates based on information about consumers' influence and consumers' susceptibility to influence. The monopoly optimally offers consumers price discounts for their influence and charges price premia for their susceptibility; the price premia and the price discounts are simple functions of the pattern of network effects. We determine under which conditions, relative to uniform price, consumer surplus increases, and we characterize the value of information on network effects for the monopoly.

Patent Rights and Innovation Disclosure

- Review of Economic Studies---2016---Hugo A. Hopenhayn,Francesco Squintani

This article studies optimal patents with respect to the timing of innovation disclosure. In a simple model, we identify forces that lead firms to either suboptimally patent too early or too late in equilibrium, and we determine conditions so that stronger patents induce earlier or later equilibrium disclosure. Then, by solving an infinite multistage patent game with a more explicit structure, we describe innovation growth, and derive detailed predictions that can be used for policy experiments. As an application, we calibrate our multistage game using summary statistics from the seeds breeding industry. We find that weaker patent rights may result in welfare gains of 46% relative to the status quo. The gains are achieved because weaker patents reduce competition, thus leading firms to postpone patenting.

Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies

- Review of Economic Studies---2016---Pamela Jakiela,Owen Ozier

This article measures the economic impacts of social pressure to share income with kin and neighbours in rural Kenyan villages. We conduct a lab experiment in which we randomly vary the observability of investment returns to test whether subjects reduce their income in order to keep it hidden. We find that women adopt an investment strategy that conceals the size of their initial endowment in the experiment, though that strategy reduces their expected earnings. This effect is largest among women with relatives attending the experiment. Parameter estimates suggest that women anticipate that observable income will be "taxed" at a rate above 4%; this effective tax rate nearly doubles when kin can observe income directly. At the village level, we find an association between the willingness to forgo expected return to keep income hidden in the laboratory experiment and worse economic outcomes outside the laboratory.

Policy Influence and Private Returns from Lobbying in the Energy Sector

- Review of Economic Studies---2016---Karam Kang

In this article, I quantify the extent to which lobbying expenditures by firms affect policy enactment. To achieve this end, I construct a novel dataset containing all federal energy legislation and lobbying activities by the energy sector during the 110th Congress. I then develop and estimate a game-theoretic model where heterogeneous players choose lobbying expenditures to affect the probability that a policy is enacted. I find that the effect of lobbying expenditures on a policy's equilibrium enactment probability to be statistically significant but very small. Nonetheless, the average returns from lobbying expenditures are estimated to be over 130%.

Inference for Games with Many Players

- Review of Economic Studies---2016---Konrad Menzel

We develop an asymptotic theory for static discrete-action games with a large number of players, and propose a novel inference approach based on stochastic expansions around the limit of the finite-player game. Our analysis focuses on anonymous games in which payoffs are a function of the agent's own action and the empirical distribution of her opponents' play. We establish a law of large numbers and central limit theorem which can be used to establish consistency of point or set estimators and asymptotic validity for inference on structural parameters as the number of players increases. The proposed methods as well as the limit theory are conditional on the realized equilibrium in the observed sample and therefore do not require any assumptions regarding selection among multiple equilibria.

Order-Driven Markets are Almost Competitive

- Review of Economic Studies---2016---Klaus Ritzberger

This article studies a market game under uncertainty in which agents may submit multiple limit and market orders. When agents know their preferences at all states, the competitive equilibrium can be supported as a Nash equilibrium of the market game, that is, agents behave as if they were price takers. Therefore, if the associated competitive economy has a fully revealing rational expectations equilibrium, then so does the market game. This resolves the puzzle that agents behave as if prices were given, even though prices aggregate private information, at least for this "private values" case. Necessary conditions for Nash equilibrium show that the resulting allocation cannot deviate too far from a competitive equilibrium. When agents do not know their preferences at some states, though, a characterization result shows that the Nash equilibria of the market game tend to be far from competitive.

Differential Fertility, Human Capital, and Development

- Review of Economic Studies---2016---Tom S. Vogl

Using micro-data from 48 developing countries, this article studies changes in cross-sectional patterns of fertility and child investment over the demographic transition. Before 1960, children from larger families obtained more education, in large part because they had richer and more educated parents. By century's end, these patterns had reversed. Consequently, fertility differentials by income and education historically raised the average education of the next generation, but they now reduce it. Relative to the level of average education, the positive effect of differential fertility in the past exceeded its negative effect in the present. While the reversal of differential fertility is unrelated to changes in GDP per capita, women's work, sectoral composition, or health, roughly half is attributable to rising aggregate education in the parents' generation. The data are consistent with a model in which fertility has a hump-shaped relationship with parental skill, due to a corner solution in which low-skill parents forgo investment in their children. As the returns to child investment rise, the peak of the relationship shifts to the left, reversing the associations under study.

A Tractable Monetary Model under General Preferences

- Review of Economic Studies---2016---Tsz-Nga Wong

This article studies an economy with both centralized and decentralized monetary exchanges under search frictions. A degenerate asset distribution is featured under a broad class of preferences including, for example, constant return to scale, constant elasticity of substitution, CARA and others from a range of macroeconomic literatures. Some novel applications impossible under quasi-linear preferences, for example endogenous growth, are illustrated under this class of preferences. This article finds that the welfare cost and growth loss of inflation can be much higher in these applications than previous estimates.

College-Major Choice to College-Then-Major Choice

- Review of Economic Studies---2015---Paola Bordon,Chao Fu

Many countries use college-major-specific admissions policies that require a student to choose a college-major pair jointly. Given the potential of student-major mismatches, we explore the equilibrium effects of postponing student choice of major. We develop a sorting equilibrium model under the college-major-specific admissions regime, allowing for match uncertainty and peer effects. We estimate the model using Chilean data. We introduce the counterfactual regime as a Stackelberg game in which a social planner chooses college-specific admissions policies and students make enrolment decisions, learn about their fits to various majors before choosing one. Our estimates indicate that switching from the baseline to the counterfactual regime leads to a 1% increase in average student welfare and that it is more likely to benefit female, low-income and/or low-ability students.

Bad Boys: How Criminal Identity Salience Affects Rule Violation

- Review of Economic Studies---2015---Alain Cohn,Michel Maréchal,Thomas Noll

We conducted an experiment with 182 inmates from a maximum security prison to analyze the impact of criminal identity salience on cheating. The results show that inmates cheat more when we exogenously render their criminal identity more salient. This effect is specific to individuals who have a criminal identity, because an additional placebo experiment shows that regular citizens do not become more dishonest in response to crime-related reminders. Moreover, our experimental measure of cheating correlates with inmates' offences against in-prison regulation. Together, these findings suggest that criminal identity salience plays a crucial role in rule violating behaviour.

Corporate Prediction Markets: Evidence from Google, Ford, and Firm X

- Review of Economic Studies---2015---Bo Cowgill,Eric Zitzewitz

Despite the popularity of prediction, markets among economists, businesses, and policymakers have been slow to adopt them in decision-making. Most studies of prediction markets outside the lab are from public markets with large trading populations. Corporate prediction markets face additional issues, such as thinness, weak incentives, limited entry, and the potential for traders with biases or ulterior motives—raising questions about how well these markets will perform. We examine data from prediction markets run by Google, Ford Motor Company, and an anonymous basic materials conglomerate (Firm X). Despite theoretically adverse conditions, we find these markets are relatively efficient, and improve upon the forecasts of experts at all three firms by as much as a 25% reduction in mean-squared error. The most notable inefficiency is an optimism bias in the markets at Google. The inefficiencies that do exist generally become smaller over time. More experienced traders and those with higher past performance trade against the identified inefficiencies, suggesting that the markets' efficiency improves because traders gain experience and less skilled traders exit the market.

Time Varying Structural Vector Autoregressions and Monetary Policy: A Corrigendum

- Review of Economic Studies---2015---Marco Del Negro,Giorgio Primiceri

This note shows how to apply the procedure of Kim et al. (1998) to the estimation of VAR, DSGE, factor, and unobserved components models with stochastic volatility. In particular, it revisits the estimation algorithm of the time-varying VAR model of Primiceri (2005). The main difference of the new algorithm is the ordering of the various MCMC steps, with each individual step remaining the same.

The Mortality Cost of Political Connections

- Review of Economic Studies---2015---Raymond Fisman,Yongxiang Wang

We study the relationship between the political connections of Chinese firms and workplace fatalities. In our preferred specification, we find that the worker death rate for connected companies is two to three times that of unconnected firms (depending on the sample employed), a pattern that holds for within-firm estimations. The connections–mortality relationship is attenuated in provinces where safety regulators' promotion is contingent on meeting safety targets. In the absence of fatalities, connected firms receive fewer reports of major violations for safety compliance, whereas in years of fatal accidents the rate of reported violations is identical. Moreover, fatal accidents produce negative returns at connected companies and are associated with the subsequent departure of well-connected executives. These results provide suggestive evidence that connections enable firms to avoid (potentially costly) compliance measures, rather than using connections to avoid regulatory response after accidents occur. Our findings emphasize the social costs of political connections, and suggest that appropriate regulatory incentives may be useful in mitigating these costs.

Securitization and Lending Competition

- Review of Economic Studies---2015---David M. Frankel,Yu Jin

We study the effects of securitization on interbank lending competition. An applicant's observable features are seen by a remote bank, while her true credit quality is known only to a local bank. Without securitization, the remote bank does not compete because of a winner's curse. With securitization, in contrast, ignorance is bliss: the less a bank knows about its loans, the less of a lemons problem it faces in selling them. This enables the remote bank to compete successfully in the lending market. Consistent with the empirical evidence, remote and securitized loans default more than observationally equivalent local and unsecuritized loans, respectively.

State Capacity and Military Conflict

- Review of Economic Studies---2015---Nicola Gennaioli,Hans-Joachim Voth

Powerful, centralized states controlling a large share of national income only begin to appear in Europe after 1500. We build a model that explains their emergence in response to the increasing importance of money for military success. When fiscal resources are not crucial for winning wars, the threat of external conflict stifles state-building. As finance becomes critical, internally cohesive states invest in state capacity while divided states rationally drop out of the competition, causing divergence. We emphasize the role of the "Military Revolution", a sequence of technological innovations that transformed armed conflict. Using data from 374 battles, we investigate empirically both the importance of money for military success and patterns of state-building in early modern Europe. The evidence is consistent with the predictions of our model.

Real Options and Risk Dynamics

- Review of Economic Studies---2015---Dirk Hackbarth,Timothy Johnson

We examine the asset pricing implications of a neoclassical model of repeated investment and disinvestment. Prior research has emphasized a negative relation between productivity and equity risk that results from operating leverage when capital adjustment is costly. In general, however, expansion and contraction options affect risk in the opposite direction: they lower equity risk as profitability declines. The general prediction is a non-monotonic overlay of opposing real option and operating leverage effects. For parameters chosen to match empirical firm characteristics, the predicted non-monotonicities are quantitatively important, and are detectable in the data. The calibrated model implies that real option effects dominate operating leverage effects, and the average firm is best described by an increasing risk profile, a conclusion supported by conditional beta estimates. The baseline calibration helps explain the profitability premium in the cross-section, but makes the value puzzle worse. Panels with heterogeneous firms can deliver simultaneous profitability and value effects that match empirical levels.

Mediation and Peace

- Review of Economic Studies---2015---Johannes Hörner,Massimo Morelli,Francesco Squintani

This article applies mechanism design to the study of international conflict resolution. Standard mechanisms in which an arbitrator can enforce her decisions are usually not feasible because disputants are sovereign entities. Nevertheless, we find that this limitation is inconsequential. Despite only being capable of making unenforceable recommendations, mediators can be equally effective as arbitrators. By using recommendation strategies that do not reveal that one player is weak to a strong opponent, a mediator can effectively circumvent the unenforceability constraint. This is because these strategies make the strong player agree to recommendations that yield the same payoff as arbitration in expectation. This result relies on the capability of mediators to collect confidential information from the disputants, before making their recommendations. Simple protocols of unmediated communication cannot achieve the same level of ex ante welfare, as they preclude confidentiality.

Business Cycle Dynamics under Rational Inattention

- Review of Economic Studies---2015---Bartosz Maćkowiak,Mirko Wiederholt

We develop a dynamic stochastic general equilibrium (DSGE) model with rational inattention and compare its predictions to data. Households and decision-makers in firms have limited attention and optimally allocate their attention. Rational inattention is the only source of slow adjustment. The model matches the empirical impulse responses to monetary policy shocks and aggregate technology shocks. At the same time, profit losses and utility losses from inattention are very small. Furthermore, it matters whether one uses this model or a conventional DSGE model for policy analysis.

Uncertainty, Information Acquisition, and Price Swings in Asset Markets

- Review of Economic Studies---2015---Antonio Mele,Francesco Sangiorgi

This article analyses costly information acquisition in asset markets with Knightian uncertainty about the asset fundamentals. In these markets, acquiring information not only reduces the expected variability of the fundamentals for a given distribution (i.e. risk). It also mitigates the uncertainty about the true distribution of the fundamentals. Agents who lack knowledge of this distribution cannot correctly interpret the information other investors impound into the price. We show that, due to uncertainty aversion, the incentives to reduce uncertainty by acquiring information increase as more investors acquire information. When uncertainty is high enough, information acquisition decisions become strategic complements and lead to multiple equilibria. Swift changes in information demand can drive large price swings even after small changes in Knightian uncertainty.

The Institutional Causes of China's Great Famine, 1959–1961

- Review of Economic Studies---2015---Xin Meng,Nancy Qian,Pierre Yared

This article studies the causes of China's Great Famine, during which 16.5 to 45 million individuals perished in rural areas. We document that average rural food retention during the famine was too high to generate a severe famine without rural inequality in food availability; that there was significant variance in famine mortality rates across rural regions; and that rural mortality rates were positively correlated with per capita food production, a surprising pattern that is unique to the famine years. We provide evidence that an inflexible and progressive government procurement policy (where procurement could not adjust to contemporaneous production and larger shares of expected production were procured from more productive regions) was necessary for generating this pattern and that this policy was a quantitatively important contributor to overall famine mortality.

Income Differences and Prices of Tradables: Insights from an Online Retailer

- Review of Economic Studies---2015---Ina Simonovska

I study the positive relationship between prices of tradable goods and per capita income. I develop a highly tractable general equilibrium model of international trade with heterogeneous firms and non-homothetic consumer preferences that positively links prices of tradables to consumer income. Guided by the model's testable prediction, I estimate the elasticity of price with respect to per capita income from a unique data set that I construct, which features prices of 245 identical goods sold in 29 European, Asian, and North American markets via the Internet by Spain's second largest apparel manufacturer—Mango. I find that doubling a destination's per capita income results in an 18% increase in the price of identical items sold there. Per capita income differences account for a third, whereas shipping cost differences can explain up to a third of the cross-country price variations of identical items purchased via the Internet by consumers who do not take advantage of quantity discounts. The price elasticity estimates compare favourably to estimates that I obtain from a standard data set that features prices across retail locations around the world, suggesting that variable mark-ups play a key role in accounting for observed cross-country differences in prices of tradables.

Bargaining in Standing Committees with an Endogenous Default

- Review of Economic Studies---2015---Vincent Anesi,Daniel Seidmann

Committee voting has mostly been investigated from the perspective of the standard Baron–Ferejohn model of bargaining over the division of a pie, in which bargaining ends as soon as the committee reaches an agreement. In standing committees, however, existing agreements can be amended. This article studies an extension of the Baron–Ferejohn framework to a model with an evolving default that reflects this important feature of policymaking in standing committees: In each of an infinite number of periods, the ongoing default can be amended to a new policy (which is, in turn, the default for the next period). The model provides a number of quite different predictions. (i) From a positive perspective, the key distinction turns on whether the quota is less than unanimity. In that case, patient enough players waste substantial shares of the pie each period and the size principle fails in some pure strategy Markov perfect equilibria. In contrast, the unique Markov perfect equilibrium payoffs in a unanimity committee coincide with those in the corresponding Baron–Ferejohn framework. (ii) If players have heterogeneous discount factors then a large class of subgame perfect equilibria (including all Markov perfect equilibria) are inefficient.

On Existence and Uniqueness of Equilibrium in a Class of Noisy Rational Expectations Models

- Review of Economic Studies---2015---Bradyn Breon-Drish

I study a general class of noisy rational expectations models that nests the standard Grossman and Stiglitz (1980) and Hellwig (1980) models, but relaxes the usual assumption of joint normality of asset pay-offs and supply, and allows for more general signal structures. I provide a constructive proof of existence of equilibrium, characterize the price function, and provide sufficient conditions for uniqueness within the class of equilibria with continuous price functions, which are met by both the Grossman and Stiglitz (1980) models and the Hellwig (1980) models with a continuum of investors. My solution approach does not rely on the typical "conjecture and verify" method, and I exhibit a number of non-normal examples in which asset prices can be characterized explicitly and in a closed form. The results presented here open up a broad class of models for applied work. To illustrate the usefulness of generalizing the standard model, I show that in settings with non-normally distributed pay-offs, shocks to fundamentals may be amplified purely due to learning effects, price drifts can arise naturally, and the disagreement–return relation depends in a novel way on return skewness.

Signalling to Dispersed Shareholders and Corporate Control

- Review of Economic Studies---2015---Mike Burkart,Samuel Lee

This article analyses how outsiders, such as bidders or activist investors, overcome the lack of coordination and information among dispersed shareholders. We identify the two basic means to achieve this goal. First, the outsider must relinquish private benefits in a manner that is informative about security benefits. We show under which conditions this is feasible and which acquisition strategies used in practice meet these conditions. Second, the outsider can alternatively use derivatives to drive a wedge between her voting power and her economic interest in the firm. Such unbundling of ownership and control, while typically considered a source of corporate governance problems, is an efficient response to the frictions dispersed ownership causes for control contestability. We also show that unbundling comes with costs and benefits for the bidder's incentives to improve firm value.

Credit Markets, Limited Commitment, and Government Debt

- Review of Economic Studies---2015---Francesca Carapella,Stephen Williamson

A dynamic model with credit under limited commitment is constructed, in which limited memory can weaken the effects of punishment for default. This creates an endogenous role for government debt in credit markets, and the economy can be non-Ricardian. Default can occur in equilibrium, and government debt essentially plays a role as collateral and thus improves borrowers' incentives. The provision of government debt acts to discourage default, whether default occurs in equilibrium or not.

Split-panel Jackknife Estimation of Fixed-effect Models

- Review of Economic Studies---2015---Geert Dhaene,Koen Jochmans

Maximum-likelihood estimation of nonlinear models with fixed effects is subject to the incidental-parameter problem. This typically implies that point estimates suffer from large bias and confidence intervals have poor coverage. This article presents a jackknife method to reduce this bias and to obtain confidence intervals that are correctly centred under rectangular-array asymptotics. The method is explicitly designed to handle dynamics in the data, and yields estimators that are straightforward to implement and can be readily applied to a range of models and estimands. We provide distribution theory for estimators of model parameters and average effects, present validity tests for the jackknife, and consider extensions to higher-order bias correction and to two-step estimation problems. An empirical illustration relating to female labour-force participation is also provided.

The Baby Boom and World War II: A Macroeconomic Analysis

- Review of Economic Studies---2015---Matthias Doepke,Moshe Hazan,Yishay D. Maoz

We argue that one major cause of the U.S. post-war baby boom was the rise in female labour supply during World War II. We develop a quantitative dynamic general equilibrium model with endogenous fertility and female labour force participation decisions. We use the model to assess the impact of the war on female labour supply and fertility in the decades following the war. For the war generation of women, the high demand for female labour brought about by mobilization leads to an increase in labour supply that persists after the war. As a result, younger women who reach adulthood in the 1950s face increased labour market competition, which impels them to exit the labour market and start having children earlier. The effect is amplified by the rise in taxes necessary to pay down wartime government debt. In our calibrated model, the war generates a substantial baby boom followed by a baby bust.

Identifying and Testing Models of Managerial Compensation

- Review of Economic Studies---2015---George-Levi Gayle,Robert A. Miller

This article analyses the identification and empirical content of the pure moral hazard (PMH) and the hybrid moral hazard (HMH) principal–agent models. The PMH model has hidden actions, while the HMH model has hidden information in addition to hidden actions. In both models, agents are risk averse and principals are risk neutral. The article derives the equilibrium restrictions from the optimal contract and uses the restrictions to show that the models have empirical content. For any given risk-aversion parameter, the models' other parameters are non-parametrically point identified. The risk-aversion parameter—and hence the model—are, however, only partially identified. Management's ability to manipulate accounting reports arises endogenously within HMH models, but not in all versions of PMH models. We use our framework to investigate whether shareholders contract with management recognizing that accounting reports are susceptible to manipulation and, therefore, endogenous to the incentives offered to management. The data reject all models in which accounting reports are verifiable. Furthermore, the version of the PMH in which accounting reports can be manipulated is rejected if expected compensation is restricted to be positive.

Dynamic Competitive Economies with Complete Markets and Collateral Constraints

- Review of Economic Studies---2015---Piero Gottardi,Felix Kubler

In this article we examine the competitive equilibria of a dynamic stochastic economy with complete markets and collateral constraints. We show that, provided the sets of asset pay-offs and of collateral levels are sufficiently rich, the equilibrium allocations with sequential trades and collateral constraints are equivalent to those obtained in Arrow–Debreu markets subject to a series of limited pledgeability constraints. We provide both necessary and sufficient conditions for equilibria to be Pareto efficient and show that when collateral is scarce equilibria are not only Pareto inefficient but also often constrained inefficient, in the sense that imposing tighter borrowing restrictions can make everybody in the economy better off. We derive sufficient conditions for the existence of Markov equilibria and, for the case of two agents, for the existence of equilibria that have finite support. These equilibria can be computed with arbitrary accuracy and the model is very tractable.

Quid Pro Quo: Technology Capital Transfers for Market Access in China

- Review of Economic Studies---2015---Thomas J. Holmes,Ellen McGrattan,Edward Prescott

By the 1970s, quid pro quo policy, which requires multinational firms to transfer technology in return for market access, had become a common practice in many developing countries. While many countries have subsequently liberalized quid pro quo requirements, China continues to follow the policy. In this article, we incorporate quid pro quo policy into a multicountry dynamic general equilibrium model, using microevidence from Chinese patents to motivate key assumptions about the terms of the technology transfer deals and macroevidence on China's inward foreign direct investment (FDI) to estimate key model parameters. We then use the model to quantify the impact of China's quid pro quo policy and show that it has had a significant impact on global innovation and welfare.

Financial Fragility in Small Open Economies: Firm Balance Sheets and the Sectoral Structure

- Review of Economic Studies---2015---Yannick Kalantzis

Episodes of large capital inflows in small open economies are often associated with a shift of resources from the tradable to the non-tradable sector and sometimes lead to balance-of-payments crises. This article builds a two-sector dynamic model to study the evolution of the sectoral structure and its impact on financial fragility. The model embeds a static mechanism of balance-of-payments crisis which produces multiple equilibria within a single time period when the non-tradable sector is large enough compared to the tradable sector. The article studies the dynamics induced by an increase in financial openness. It shows that the relative size of the non-tradable sector overshoots, which makes the economy more likely to be financially fragile during the transitory dynamics. Using an extended version of the model, the article conducts a quantitative analysis and shows that this mechanism accounts well for several episodes of large capital inflows that led to financial crises.

Implementation in Weakly Undominated Strategies: Optimality of Second-Price Auction and Posted-Price Mechanism

- Review of Economic Studies---2015---Takuro Yamashita

We study the mechanism design problem of guaranteeing desirable performances whenever agents are rational in the sense of not playing weakly dominated strategies. We first provide an upper bound for the best performance we can guarantee among all feasible mechanisms. The bound is represented as the maximized value of the designer's objective subject to the inequality version of the standard envelope incentive conditions. We then prove the bound to be tight under certain conditions on the designer's prior over the agents' pay-off types in auction and bilateral-trade applications. In private-value auction and bilateral trade, the optimal mechanisms (a second-price auction and posted-price mechanism, respectively) satisfy dominant-strategy incentive compatibility, the classical notion of "robust" mechanisms. In an interdependent-value auction, we find that a second-price auction is optimal in revenue with interdependent values, which is neither dominant-strategy nor ex post incentive compatible, but satisfies the novel incentive compatibility introduced in this analysis.

History, Expectations, and Leadership in the Evolution of Social Norms

- Review of Economic Studies---2015---Daron Acemoglu,Matthew Jackson

We study the evolution of a social norm of “cooperation” in a dynamic environment. Each agent lives for two periods and interacts with agents from the previous and next generations via a coordination game. Social norms emerge as patterns of behaviour that are stable in part due to agents' interpretations of private information about the past, influenced by occasional commonly observed past behaviours. For sufficiently backward-looking societies, history completely drives equilibrium play, leading to a social norm of high or low cooperation. In more forward-looking societies, there is a pattern of “reversion” whereby play starting with high (low) cooperation reverts towards lower (higher) cooperation. The impact of history can be countered by occasional “prominent” agents, whose actions are visible by all future agents and who can leverage their greater visibility to influence expectations of future agents and overturn social norms of low cooperation.

The Impact of Competition on Management Quality: Evidence from Public Hospitals

- Review of Economic Studies---2015---Nicholas Bloom,Carol Propper,Stephan Seiler,John van Reenen

We analyse the causal impact of competition on managerial quality and hospital performance. To address the endogeneity of market structure we analyse the English public hospital sector where entry and exit are controlled by the central government. Because closing hospitals in areas where the governing party is expecting a tight election race (“marginals”) is rare due to the fear of electoral defeat, we can use political marginality as an instrumental variable for the number of hospitals in a geographical area. We find that higher competition results in higher management quality, measured using a new survey tool, and improved hospital performance. Adding a rival hospital increases management quality by 0.4 standard deviations and increases survival rates from emergency heart attacks by 9.7%. We confirm the robustness of our IV strategy to “hidden policies” that could be used in marginal districts to improve hospital management and to changes in capacity that may follow from hospital closure.

Relational Contracts in Competitive Labour Markets

- Review of Economic Studies---2015---Simon Board,Moritz Meyer-Ter-Vehn

We analyze a large, anonymous labour market in which firms motivate their workers via relational contracts. The market is frictionless and features on-the-job search, in that all acceptable vacancies are immediately filled and the employed compete with the unemployed for vacancies. While firms and workers are ex ante identical, the unique equilibrium exhibits a continuous distribution of contracts in which high wage firms have higher retention rates, more motivated workers and higher productivity. The model thus generates dispersion in wages, productivity and human resource strategies, and gives rise to endogenous job ladders. An exogenous increase in on-the-job search increases the quantity of jobs but decreases their quality; with sufficient on-the-job search there is full employment, and wage dispersion rather than unemployment motivates workers.

Cross-Border Banking and Global Liquidity

- Review of Economic Studies---2015---Valentina Bruno,Hyun Song Shin

We investigate global factors associated with bank capital flows. We formulate a model of the international banking system where global banks interact with local banks. The solution highlights the bank leverage cycle as the determinant of the transmission of financial conditions across borders through banking sector capital flows. A distinctive prediction of the model is that local currency appreciation is associated with higher leverage of the banking sector, thereby providing a conceptual bridge between exchange rates and financial stability. In a panel study of 46 countries, we find support for the key predictions of our model.

From Polygyny to Serial Monogamy: A Unified Theory of Marriage Institutions

- Review of Economic Studies---2015---David de la Croix,Fabio Mariani

Marriage institutions have changed over time, evolving from polygyny to monogamy, and then to serial monogamy (as defined by divorce and remarriage). We propose a unified theory of such institutional changes, where the dynamics of income distribution are the driving force. We characterize the marriage-market equilibrium in each of the three alternative regimes, and determine which one emerges as a political equilibrium, depending on the state of the economy. In a two-class society, a rise in the share of rich males drives the change from polygyny to monogamy. The introduction of serial monogamy follows from a further rise in the proportion of either rich females or rich males.

Monogamy eases the transition to serial monogamy, since it promotes social mobility.

Bargaining and Reputation: An Experiment on Bargaining in the Presence of Behavioural Types

- Review of Economic Studies---2015---Matthew Embrey,Guillaume Frechette,Steven Lehrer

We conduct a series of laboratory experiments to understand what role commitment and reputation play in bargaining. The experiments implement the Abreu and Gul (2000) bargaining model that demonstrates how introducing behavioral types, which are obstinate in their demands, creates incentives for all players to build reputations for being hard bargainers. The data are qualitatively consistent with the theory, as subjects mimic induced types. Furthermore, we find evidence for the presence of complementary types, whose initial demands acquiesce to induced behavioural demands. However, there are quantitative deviations from the theory: subjects make aggressive demands too often and participate in longer conflicts before reaching agreements. Overall, the results suggest that the Abreu and Gul (2000) model can be used to gain insights to bargaining behavior, particularly in environments where the process underlying obstinate play is well established.

Optimal Contracting and the Organization of Knowledge

- Review of Economic Studies---2015---William Fuchs,Luis Garicano,Luis Rayo

We study contractual arrangements that support an efficient use of time in a knowledge-intensive economy in which agents endogenously specialize in either production or consulting. The resulting market for advice is plagued by informational problems, since both the difficulty of the questions posed to consultants and the knowledge of those consultants are hard to assess. We show that spot contracting is not efficient because lemons (in this case, self-employed producers with intermediate knowledge) cannot be appropriately excluded from the market. However, an ex ante, firm-like contractual arrangement uniquely delivers the first best. This arrangement involves hierarchies in which consultants are full residual claimants of output and compensate producers via incentive contracts. This simple characterization of the optimal ex ante arrangement suggests a rationale for the organization of firms and the structure of compensation in knowledge-intensive sectors. Our findings correspond empirically to observed arrangements inside professional service firms and between venture capitalists and entrepreneurs.

The U-Shapes of Occupational Mobility

- Review of Economic Studies---2015---Fane Groes,Philipp Kircher,Iourii Manovskii

Using administrative panel data on the entire Danish population we document a new set of facts characterizing occupational mobility. For most occupations, mobility is U-shaped and directional : not only low but also high wage earners within an occupation have a particularly large probability of leaving their occupation, and the low (high) earners tend to switch to new occupations with lower (higher) average wages. Exceptions to this pattern of two-sided selection are occupations with steeply rising (declining) productivity, where mainly the lower (higher) paid workers within this occupation tend to leave. The facts conflict with several existing theories that are used to account for endogeneity in occupational choice, but it is shown analytically that the patterns are explained consistently within a theory of vertical sorting under absolute advantage that includes learning about workers' abilities.

The Informational Content of Surnames, the Evolution of Intergenerational Mobility, and Assortative Mating

- Review of Economic Studies---2015---Maia Güell,Sevi Rodríguez Mora,Christopher I. Telmer

We propose a new methodology for measuring intergenerational mobility in economic well-being. Our method is based on the joint distribution of surnames and economic outcomes. It circumvents the need for intergenerational panel data, a long-standing stumbling block for understanding mobility. It does so by using cross-sectional data alongside a calibrated structural model to recover the traditional intergenerational elasticity measures. Our main idea is simple. If "inheritance" is important for economic outcomes, then rare surnames should predict economic outcomes in the cross-section. This is because rare surnames are indicative of familial linkages. If the number of rare surnames is small this approach will not work. However, rare surnames are abundant in the highly skewed nature of surname distributions from most Western societies. We develop a model that articulates this idea and shows that the more important is inheritance, the more informative will be surnames. This result is robust to a variety of different assumptions about fertility and mating. We apply our method using the 2001 census from Catalonia, a large region of Spain. We use educational attainment as a proxy for overall economic well-being. A calibration exercise results in an estimate of the intergenerational correlation of educational attainment of 0.60. We also find evidence suggesting that mobility has decreased among the different generations of the 20th century. A complementary analysis based on sibling correlations confirms our results and provides a robustness check on our method. Our model and our data allow us to examine one possible explanation for the observed decrease in mobility. We find that the degree of assortative mating has increased over time. Overall, we argue that our method has promise because it can tap the vast mines of census data that are available in a heretofore unexploited manner.

On Transparency in Organizations

- Review of Economic Studies---2015---Philippe Jehiel

When is it best for the Principal to commit to not disclosing all that he/she knows in moral hazard interactions? I show that whenever the Agent would choose the same action under complete information at several distinct states, then full transparency can generically be improved upon. This implies that full transparency is generically suboptimal whenever the dimension of the information held by the Principal exceeds the dimension of the Agent's action. In a simple class of problems, I make further progress on the best disclosure policy assuming the Principal can either disclose fully the state or remain silent.

Optimal Sales Contracts with Withdrawal Rights

- Review of Economic Studies---2015---Daniel Krähmer,Roland Strausz

We introduce ex post participation constraints in the standard sequential screening model. This captures the presence of consumer withdrawal rights as, for instance, mandated by European Union regulation of "distance sales contracts". With such additional constraints, the optimal contract is static and, unlike with only ex ante participation constraints, does not elicit the agent's information sequentially. This holds whenever differences in ex ante and ex post outside options are below a positive upper bound. Welfare effects of mandatory withdrawal rights are ambiguous. Since it is insufficient in our setting to consider only local incentive constraints, we develop a novel technique to identify the relevant global constraints.

Determinants of College Major Choice: Identification using an Information Experiment

- Review of Economic Studies---2015---Matthew Wiswall,Basit Zafar

This article studies the determinants of college major choice using an experimentally generated panel of beliefs, obtained by providing students with information on the true population distribution of various major-specific characteristics. Students logically revise their beliefs in response to the information, and their subjective beliefs about future major choice are associated with beliefs about their own earnings and ability. We estimate a rich model of college major choice using the panel of beliefs data. While expected earnings and perceived ability are a significant determinant of major choice, heterogeneous tastes are the dominant factor in the choice of major. Analyses that ignore the correlation in tastes with earnings expectations inflate the role of earnings in college major choices. We conclude by computing the welfare gains from the information experiment and find positive average welfare gains.

Estimates of the Trade and Welfare Effects of NAFTA

- Review of Economic Studies---2015---Lorenzo Caliendo,Fernando Parro

We build into a Ricardian model sectoral linkages, trade in intermediate goods, and sectoral heterogeneity in production to quantify the trade and welfare effects from tariff changes. We also propose a new method to estimate sectoral trade elasticities consistent with any trade model that delivers a multiplicative gravity equation. We apply our model and use our estimated elasticities to identify the impact of NAFTA's tariff reductions. We find that Mexico's welfare increases by 1.31%, U.S.'s welfare increases by 0.08%, and Canada's welfare declines by 0.06%. We find that intra-bloc trade increases by 118% for Mexico, 11% for Canada, and 41% for the U.S. We show that welfare effects from tariff reductions are reduced when the structure of production does not take into account intermediate goods or input–output linkages. Our results highlight the importance of sectoral heterogeneity, intermediate goods, and sectoral linkages for the quantification of the welfare gains from tariffs reductions.

Learning and Model Validation

- Review of Economic Studies---2015---Inkoo Cho,Kenneth Kasa

This paper studies adaptive learning with multiple models. An agent operating in a self-referential environment is aware of potential model misspecification, and tries to detect it, in real-time, using an econometric specification test. If the current model passes the test, it is used to construct an optimal policy. If it fails the test, a new model is selected. As the rate of coefficient updating decreases, one model becomes dominant, and is used “almost always”. Dominant models can be characterized using the tools of large deviations theory. The analysis is used to address two questions posed by Sargent's Phillips Curve model.

A Linder Hypothesis for Foreign Direct Investment

- Review of Economic Studies---2015---Pablo Fajgelbaum,Gene M. Grossman,Elhanan Helpman

We study patterns of foreign direct investment (FDI) in a multi-country world economy. We develop a model featuring non-homothetic preferences for quality and monopolistic competition in which specialization is purely demand-driven and the decision to serve foreign countries via exports or FDI depends on a proximity-concentration trade-off. We characterize the joint patterns of trade and FDI when countries differ in income distribution and size and show that FDI is more likely to occur between countries with similar per capita income levels. The model predicts a Linder Hypothesis for horizontal FDI, which is consistent with some patterns we find using establishment-level data on multinational activity.

Do Competitive Workplaces Deter Female Workers? A Large-Scale Natural Field Experiment on Job Entry Decisions

- Review of Economic Studies---2015---Jeffrey Flory,Andreas Leibbrandt,John List

An important line of research using laboratory experiments has provided a new potential reason for gender imbalances in labour markets: men are more competitively inclined than women. Whether, and to what extent, gender differences in attitudes toward competition lead to differences in naturally occurring labour markets remains an open question. To examine this, we run a natural field experiment on job-entry decisions where we randomize almost 9000 job-seekers into different compensation regimes. By varying the role that individual competition plays in setting the wage and the gender composition, we examine whether a competitive compensation regime, by itself, can cause differential job entry. The data highlight the power of the compensation regime in that women disproportionately shy away from competitive work settings. Yet, there are important factors that attenuate the gender differences, including whether the job is performed in teams, whether the position has overt gender associations, and the age of the job-seekers. We also find that the effect is most pronounced in labour markets with attractive alternative employment options. Furthermore, our results suggest that preferences over uncertainty can be just as important as preferences over competition per se in driving job-entry choices.

Does Belief Heterogeneity Explain Asset Prices: The Case of the Longshot Bias

- Review of Economic Studies---2015---Amit Gandhi,Ricardo Serrano-Padial

This article studies belief heterogeneity in a benchmark competitive asset market: a market for Arrow–Debreu securities. We show that differences in agents' beliefs lead to a systematic pricing pattern, the favourite–longshot bias (FLB): securities with a low-pay-out probability are overpriced, whereas securities with high probability pay-out are underpriced. We apply demand estimation techniques to betting market data, and find that the observed FLB is explained by a two-type population consisting of canonical traders, who hold virtually correct beliefs and are the majority type in the population (70%); and noise traders exhibiting significant belief dispersion. Furthermore, exploiting variation in public information across markets in our data set, we show that our belief heterogeneity model empirically outperforms existing preference-based explanations of the FLB.

Projects and Team Dynamics

- Review of Economic Studies---2015---George Georgiadis

I study a dynamic problem in which a group of agents collaborate over time to complete a project. The project progresses at a rate that depends on the agents' efforts, and it generates a pay-off upon completion. I show that agents work harder the closer the project is to completion, and members of a larger team work harder than members of a smaller team—both individually and on aggregate—if and only if the project is sufficiently far from completion. I apply these results to determine the optimal size of a self-organized partnership, and to study the manager's problem who recruits agents to carry out a project, and must determine the team size and its members' incentive contracts. The main results are: (i) that the optimal symmetric contract compensates the agents only upon completing the project; and (ii) the optimal team size decreases in the expected length of the project.

Consumer Inattention and Bill-Shock Regulation

- Review of Economic Studies---2015---Michael Grubb

For many goods and services such as electricity, health care, cellular phone service, debit-card transactions, or those sold with loyalty discounts, the price of the next unit of service depends on past usage. As a result, consumers who are inattentive to their past usage but are aware of contract terms may remain uncertain about the price of the next unit. I develop a model of inattentive consumption, derive equilibrium pricing when consumers are inattentive, and evaluate bill-shock regulation requiring firms to disclose information that substitutes for attention. When inattentive consumers are sophisticated but heterogeneous in their expected demand, bill-shock regulation reduces social welfare in fairly-competitive markets, which may be the effect of the Federal Communication Commission's recent bill-shock agreement. If some consumers are attentive while others naively fail to anticipate their own inattention, however, then bill-shock regulation increases social welfare and can benefit consumers. Hence, requiring zero-balance alerts in addition to the Federal Reserve's new opt-in rule for debit-card overdraft protection may benefit consumers.

Goods Prices and Availability in Cities

- Review of Economic Studies---2015---Jessie Handbury,David Weinstein

This article uses detailed barcode data on purchase transactions by households in 49 U.S. cities to calculate the first theoretically founded urban price index. In doing so, we overcome a large number of problems that have plagued spatial price index measurement. We identify two important sources of bias. Heterogeneity bias arises from comparing different goods in different locations, and variety bias arises from not correcting for the fact that some goods are unavailable in some locations. Eliminating heterogeneity bias causes 97% of the variance in the price level of food products across cities to disappear relative to a conventional index. Eliminating both biases reverses the common finding that prices tend to be higher in larger cities. Instead, we find that price level for food products falls with city size.

Loss Aversion and Inefficient Renegotiation

- Review of Economic Studies---2015---Fabian Herweg,Klaus M. Schmidt

We propose a theory of inefficient renegotiation that is based on loss aversion. When two parties write a long-term contract that has to be renegotiated after the realization of the state of the world, they take the initial contract as a reference point to which they compare gains and losses of the renegotiated transaction. We show that loss aversion makes the renegotiated outcome sticky and materially inefficient. The theory has important implications for the optimal design of long-term contracts. First, it explains why parties often abstain from writing a beneficial long-term contract or why some contracts specify transactions that are never ex post efficient. Secondly, it shows under what conditions parties should rely on the allocation of ownership rights to protect relationship-specific investments rather than writing a specific performance contract. Thirdly, it shows that employment contracts can be strictly optimal even if parties are free to renegotiate.

Dissecting the Effect of Credit Supply on Trade: Evidence from Matched Credit-Export Data

- Review of Economic Studies---2015---Daniel Paravisini,Veronica Rappoport,Philipp Schnabl,Daniel Wolfenzon

We estimate the elasticity of exports to credit using matched customs and firm-level bank credit data from Peru. To account for non-credit determinants of exports, we compare changes in exports of the same product and to the same destination by firms borrowing from banks differentially affected by capital-flow reversals during the 2008 financial crisis. We find that credit shocks affect the intensive margin of exports, but have no significant impact on entry or exit of firms to new product and destination markets. Our results suggest that credit shortages reduce exports through raising the variable cost of production, rather than the cost of financing sunk entry investments.

Multiproduct Retailing

- Review of Economic Studies---2015---Andrew Rhodes

We study the pricing behaviour of a multiproduct firm, when consumers must pay a search cost to learn its prices. Equilibrium prices are high, because consumers understand that visiting a store exposes them to a hold-up problem. However, a firm with more products charges lower prices, because it attracts consumers who are more price sensitive. Similarly, when a firm advertises a low price on one product, consumers rationally expect it to charge somewhat lower prices on its other products as well. We therefore find that having a large product range, and advertising a low price on one product, are substitute ways of building a "low-price image". Finally, we show that in a competitive setting each product has a high regular price, with firms occasionally giving random discounts that are positively correlated across products.

Contractible Contracts in Common Agency Problems

- Review of Economic Studies---2015---Balázs Szentes

This article analyses contractual situations between many principals and many agents. The agents have private information, and the principals take actions. Principals have the ability to contract not only on the reports of the agents but also on the contracts offered by other principals. Contracts are required to be representable in a formal language. The main result of the article is a characterization of the allocations that can be implemented as equilibria in our contracting game. We then restrict attention to exclusive-contracting environments, in which the agent may select the contract of at most one principal. In this setting, our characterization result implies that principals can collude to implement the monopolist outcome. Finally, in general, equilibrium contracts turn out to be incomplete. That is, a contract will restrict the action space of a principal but will not necessarily determine a single action.

Learning, Misallocation, and Technology Adoption: Evidence from New Malaria Therapy in Tanzania

- Review of Economic Studies---2014---Achyuta Adhvaryu

I study how the misallocation of new technology to individuals, who have low ex post returns to its use, affects learning and adoption behaviour. I focus on antimalarial treatment, which is frequently over-prescribed in many low-income country contexts where diagnostic tests are inaccessible. I show that misdiagnosis reduces average therapeutic effectiveness, because only a fraction of adopters actually have malaria, and slows the rate of social learning due to increased noise. I use data on adoption choices, the timing and duration of fever episodes, and individual blood slide confirmations of malarial status from a pilot study for a new malaria therapy in Tanzania to show that individuals whose reference groups experienced fewer misdiagnoses exhibited stronger learning effects and were more likely to adopt.

Demand Reduction and Inefficiency in Multi-Unit Auctions

- Review of Economic Studies---2014---Lawrence M. Ausubel,Peter Cramton,Marek Pycia,Marzena Rostek,Marek Weretka

Auctions often involve the sale of many related goods: Treasury, spectrum, and electricity auctions are examples. In multi-unit auctions, bids for marginal units may affect payments for inframarginal units, giving rise to “demand reduction” and furthermore to incentives for shading bids differently across units. We establish that such differential bid shading results generically in ex post inefficient allocations in the uniform-price and pay-as-bid auctions. We also show that, in general, the efficiency and revenue rankings of the two formats are ambiguous. However, in settings with symmetric bidders, the pay-as-bid auction often outperforms. In particular, with diminishing marginal utility, symmetric information and linearity, it yields greater expected revenues. We explain the rankings through multi-unit effects, which have no counterparts in auctions with unit demands. We attribute the new incentives separately to multi-unit (but constant) marginal utility and to diminishing marginal utility. We also provide comparisons with the Vickrey auction.

Equilibrium Pricing and Trading Volume under Preference Uncertainty

- Review of Economic Studies---2014---Bruno Biais,Johan Hombert,Pierre-Olivier Weill

Information collection and processing in financial institutions is challenging. This can delay the observation by traders of the exact capital charges and constraints of their institution. During this delay, traders face preference uncertainty. In this context, we study optimal trading strategies and equilibrium prices in a continuous centralized market. We focus on liquidity shocks, during which preference uncertainty is likely to matter most. Preference uncertainty generates allocative inefficiency, but need not reduce prices. Progressively learning about preferences generate round–trip trades, which increase volume relative to the frictionless market. In a cross section of liquidity shocks, the initial price drop is positively correlated with total trading volume. Across traders, the number of round–trips is negatively correlated with trading profits and average inventory.

Information Acquisition and Welfare

- Review of Economic Studies---2014---Luca Colombo,Gianluca Femminis,Alessandro Pavan

We study information acquisition in a flexible framework with strategic complementarity or substitutability in actions and a rich set of externalities that are responsible for possible wedges between the equilibrium and the efficient acquisition of information. First, we relate the (in)efficiency in the acquisition of information to the (in)efficiency in the use of information and explain why efficiency in the use is no guarantee of efficiency in the acquisition. Next, we show how the acquisition of private information affects the social value of public information (i.e. the comparative statics of equilibrium welfare with respect to the quality of public information). Finally, we illustrate the implications of the results in a monetary economy with price rigidities and dispersed information about productivity shocks.

Education and Crime over the Life Cycle

- Review of Economic Studies---2014---Giulio Fella,Giovanni Gallipoli

We compare two large-scale policy interventions aimed at reducing crime: subsidizing high school completion and increasing the length of prison sentences. To this purpose we use a life-cycle model with endogenous education and crime choices. We apply the model to property crime and calibrate it to U.S. data. We find that targeting crime reductions through increases in high school graduation rates entails large efficiency and welfare gains. These gains are absent if the same crime reduction is achieved by increasing the length of sentences. We also find that general equilibrium effects explain roughly one half of the reduction in crime from subsidizing high school.

Attack, Defence, and Contagion in Networks

- Review of Economic Studies---2014---Sanjeev Goyal,Adrien Vigier

Connections between individuals facilitate the exchange of goods, resources, and information and create benefits. These connections may be exploited by adversaries to spread their attacks as well. What is the optimal way to design and defend networks in the face of attacks? We develop a model with a Designer and an Adversary. The Designer moves first and chooses a network and an allocation of defence resources across nodes. The Adversary then allocates attack resources on nodes; if an attack succeeds then the Adversary decides on how successful resources should navigate the network. We obtain two principal results. One, we show that in a wide variety of circumstances a star network with all defence resources allocated to the central node is optimal for the Designer. Two, we identify conditions on the technology of conflict, network value function, and the resource configuration for which networks with multiple hubs/components are optimal.

New, Like New, or Very Good? Reputation and Credibility

- Review of Economic Studies---2014---Bruno Jullien,In-Uck Park

We show that sellers may earn a reputation for their “ability” to deliver high-quality goods on average by honestly announcing the realized quality of items for sale every period. As the expected revenue stream from continuing with honest communication increases with their ability, high-ability sellers remain honest while low-ability sellers find it too costly and sometimes lie about quality for short-term gain. Thus, cheap-talk communication facilitates the market’s learning of a seller’s ability and strengthens reputation effects. We study this new reputation mechanism and the induced market dynamics, first when sellers cannot restart with a new identity and second when they can. We extend the analysis to various other situations such as voluntary refund and moral hazard.

Employer Learning, Productivity, and the Earnings Distribution: Evidence from Performance Measures

- Review of Economic Studies---2014---Lisa Kahn,Fabian Lange

Pay distributions fan out with experience. The leading explanations for this pattern are that over time, either employers learn about worker productivity but productivity remains fixed or workers' productivities themselves evolve heterogeneously. We propose a dynamic specification that nests both employer learning and dynamic productivity heterogeneity. We estimate this model on a 20-year panel of pay and performance measures from a single, large firm. The advantage of these data is that they provide us with repeat measures of productivity, some of which have not yet been observed by the firm when it sets wages. We use our estimates to investigate how learning and dynamic productivity heterogeneity jointly contribute to the increase in pay dispersion with age. We find that both mechanisms are important for understanding wage dynamics. The dispersion of pay increases with experience primarily because productivity differences increase. Imperfect learning, however, means that wages differ significantly from individual productivity all along the life cycle because firms continuously struggle to learn about a moving target in worker productivity. Our estimates allow us to calculate the degree to which imperfect learning introduces a wedge between the private and social incentives to invest in human capital. We find that these disincentives exist throughout the life cycle but increase rapidly after about 15 years of experience. Thus, in contrast to the existing literature on employer learning, we find that imperfect learning might have especially large effects on investments among older workers.

Instrumental Variables with Unrestricted Heterogeneity and Continuous Treatment

- Review of Economic Studies---2014---Maximilian Kasy

This article discusses identification in continuous triangular systems without restrictions on heterogeneity or functional form. We do not assume separability of structural functions, restrictions on the dimensionality of unobservables, or monotonicity in unobservables. We do maintain monotonicity of the first stage relationship in the instrument and consider the case of real-valued treatment. Under these conditions alone, and given rich enough support of the data, potential outcome distributions, the average structural function, and quantile structural functions are point identified. If the support of the continuous instrument is not large enough, potential outcome distributions are partially identified. If the instrument is discrete, identification fails completely. If treatment is multi-dimensional, additional exclusion restrictions yield identification. The set-up discussed in this article covers important cases not covered by existing approaches such as conditional moment restrictions (cf. Newey and Powell, 2003) and control variables (cf. Imbens and Newey, 2009). It covers, in particular, random coefficient models, as well as systems of structural equations.

Fiscal Policy in an Expectations-Driven Liquidity Trap

- Review of Economic Studies---2014---Karel R. S. M. Mertens,Morten Ravn

We study the effects of fiscal policy interventions in a liquidity trap in a model with nominal rigidities and an interest rate rule. In a liquidity trap caused by a self-fulfilling state of low confidence, higher government spending has deflationary effects that reduce the spending multiplier when the zero lower bound is binding. Instead, cuts in marginal labour tax rates are inflationary and become more expansionary when the zero lower bound is binding. These findings contradict a popular view, based on a liquidity trap caused by a fundamental shock such as a taste shock, that higher government spending is inflationary and can therefore be associated with large multipliers at the zero lower bound, while lower marginal tax rates are deflationary and therefore counterproductive.

Mechanism Design by an Informed Principal: Private Values with Transferable Utility

- Review of Economic Studies---2014---Tymofiy Mylovanov,Thomas Tröger,Thomas Troeger

We provide a solution to the informed-principal problem in the independent private values setting with monetary transfers. The principal's private information creates signaling considerations that may distort the implemented allocation. We show that there is no distortion: all principal types implement an allocation that is optimal for the principal ex ante, before he/she learns his/her type. As an application, we consider settings with linear utility. For bilateral exchange in which the principal is one of the traders, the solution is a combination of a participation fee, a buy-out option for the principal, and a resale stage with posted prices.

Complementary Bidding Mechanisms and Startup Costs in Electricity Markets

- Review of Economic Studies---2014---Mar Reguant

I extend multi-unit auction estimation techniques to a setting in which firms can express cost complementarities over time. In the context of electricity markets, I show how the auction structure and bidding data can be used to estimate these complementarities, which in these markets arise due to startup costs. I find that startup costs are substantial and that taking them into account helps better explain firm bidding strategies and production patterns. As in other dynamic settings, I find that startup costs limit the ability of firms to change production over time, exacerbating fluctuations in market prices. These fluctuations can induce estimates of market power that ignore dynamic costs to overstate markup volatility, with predicted markups that can be even negative in periods of low demand. I show how accounting for startup costs can provide a natural correction for these markup biases.

Asymptotic Efficiency of Semiparametric Two-step GMM

- Review of Economic Studies---2014---Daniel Ackerberg,Xiaohong Chen,Jinyong Hahn,Zhipeng Liao

Many structural economics models are semiparametric ones in which the unknown nuisance functions are identified via non-parametric conditional moment restrictions with possibly non-nested or overlapping conditioning sets, and the finite dimensional parameters of interest are over-identified via unconditional moment restrictions involving the nuisance functions. In this article we characterize the semiparametric efficiency bound for this class of models. We show that semiparametric two-step optimally weighted GMM estimators achieve the efficiency bound, where the nuisance functions could be estimated via any consistent nonparametric methods in the first step. Regardless of whether the efficiency bound has a closed form expression or not, we provide easy-to-compute sieve-based optimal weight matrices that lead to asymptotically efficient two-step GMM estimators.

Imperfect Choice or Imperfect Attention? Understanding Strategic Thinking in Private Information Games

- Review of Economic Studies---2014---Isabelle Brocas,Juan D. Carrillo,Stephanie Wang,Colin F. Camerer

To understand the thinking process in private information games, we use “Mousetracking” to record which payoffs subjects attend to. The games have three information states and vary in strategic complexity. Subjects consistently deviate from Nash equilibrium choices and often fail to look at payoffs which they need to in order to compute an equilibrium response. Choices and lookups are similar when stakes are higher. When cluster analysis is used to group subjects according to lookup patterns and choices, three clusters appear to correspond approximately to level-3, level-2, and level-1 thinking in level-k models, and a fourth cluster is consistent with inferential mistakes (as, for example, in QRE or Cursed Equilibrium theories). Deviations from Nash play are associated with failure to look at the necessary payoffs. The time durations of looking at key payoffs can predict choices, to some extent, at the individual level and at the trial-by-trial level.

Student Portfolios and the College Admissions Problem

- Review of Economic Studies---2014---Hector Chade,Gregory Lewis,Lones Smith

We develop a decentralized Bayesian model of college admissions with two ranked colleges, heterogeneous students, and two realistic match frictions: students find it costly to apply to college, and college evaluations of their applications are uncertain. Students thus face a portfolio choice problem in their application decision, while colleges choose admissions standards that act like market-clearing prices. Enrollment at each college is affected by the standards at the other college through student portfolio reallocation. In equilibrium, student-college sorting may fail: weaker students sometimes apply more aggressively, and the weaker college might impose higher standards. Applying our framework, we analyse affirmative action, showing how it induces minority applicants to construct their application portfolios as if they were majority students of higher caliber.

Upstream Innovation and Product Variety in the U.S. Home PC Market

- Review of Economic Studies---2014---Alon Eizenberg

This article investigates the welfare implications of the rapid innovation in central processing units (CPUs), and asks whether it results in inefficient elimination of basic personal computer (PC) products. I analyse a game in which firms make multiple discrete product choices, and tackle challenges such as partial identification and sample selection. Estimation results demonstrate that the demand for PCs is highly segmented, and that fixed costs consume a substantial portion of the per-unit producer profit. The estimated model implies that Intel's introduction of its Pentium M chip contributed significantly to the growth of the mobile PC segment and to consumer welfare. The lion's share of the benefits to consumers was enjoyed by the 20% least price-sensitive consumers. I also find that the Pentium M crowded out the Pentium III and Pentium 4 technologies, and that the benefits to consumers from keeping those older products on the shelf would have been comparable to the added fixed costs. While total welfare cannot be increased by keeping older technologies on the shelf, such a policy would have allowed the benefits from innovation to “trickle down” to price-sensitive households, improving their access to mobile computing.

Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System

- Review of Economic Studies---2014---Benjamin Faber

Large-scale transport infrastructure investments connect both large metropolitan centres of production as well as small peripheral regions. Are the resulting trade cost reductions a force for the diffusion of industrial and total economic activity to peripheral regions, or do they reinforce the concentration of production in space? This article exploits China's National Trunk Highway System as a large-scale natural experiment to contribute to our understanding of this question. The network was designed to connect provincial capitals and cities with an urban population above 500,000. As a side effect, a large number of small peripheral counties were connected to large metropolitan agglomerations. To address non-random route placements on the way between targeted city nodes, I propose an instrumental variable strategy based on the construction of least cost path spanning tree networks. The estimation results suggest that network connections have led to a reduction in GDP growth among non-targeted peripheral counties. This effect appears to be driven by a significant reduction in industrial output growth. Additional results present evidence in support of a trade-based channel in the light of falling trade costs between peripheral and metropolitan regions.

Universal Social Orderings: An Integrated Theory of Policy Evaluation, Inter-Society Comparisons, and Interpersonal Comparisons

- Review of Economic Studies---2014---Marc Fleurbaey,Koichi Tadenuma

We introduce the concept of a universal social ordering, defined on the set of pairs of an allocation and a preference profile of any finite population. It is meant to unify evaluations and comparisons of welfare (living standards) for individuals and populations of possibly different sizes and preferences. It can be used for policy evaluation, international comparisons, growth assessment, and inequality measurement. It even makes it possible to evaluate policy options that affect the size of the population or the preferences of its members. We study how to extend the theory of social choice in order to select such orderings on a rigorous axiomatic basis. We provide foundations for leximin as well as additively separable criteria. Key ingredients in this analysis are fairness principles in social aggregation, attitudes with respect to population size, and the bases of interpersonal comparisons. We discuss how this sheds light on recent developments in the empirical literature on international comparisons.

Customer Capital

- Review of Economic Studies---2014---Francois Gourio,Leena Rudanko

Firms spend substantial resources on marketing and selling. Interpreting this as evidence of frictions in product markets, which require firms to spend resources on customer acquisition, this article develops a search theoretic model of firm dynamics in frictional product markets. Introducing search frictions generates long-term customer relationships, rendering the customer base a state variable for firms, which is sluggish to adjust. This affects: the level and volatility of firm investment, profits, value, sales and markups, the timing of firm responses to shocks, and the relationship between investment and Tobin's q. We document support for these predictions in firm-level data from Compustat, using cross-industry variation in selling expenses to quantify differences in the degree of friction across markets.

Heterogeneous Beliefs and Tests of Present Value Models

- Review of Economic Studies---2014---Kenneth Kasa,Todd Walker,Charles H. Whiteman

This article develops a dynamic asset pricing model with persistent heterogeneous beliefs. The model features competitive traders who receive idiosyncratic signals about an underlying fundamentals process. We adapt Futia's (1981) frequency domain methods to derive conditions on the fundamentals that guarantee non-invertibility of the mapping between observed market data and the underlying shocks to agents' information sets. When these conditions are satisfied, agents remain asymmetrically informed in equilibrium and must ‘forecast the forecasts of others’. An econometrician, who incorrectly imposes a homogeneous beliefs equilibrium, will find that the asset price displays violations of variance bounds, predictability of excess returns, and rejections of cross-equation restrictions.

When Strong Ties are Strong: Networks and Youth Labour Market Entry

- Review of Economic Studies---2014---Francis Kramarz,Oskar Skans

The conditions under which young workers find their first real post-graduation jobs are important for their future careers and insufficiently documented given their potential importance for young workers welfare. To study these conditions, and in particular the role played by social ties, we use a Swedish population-wide linked employer–employee data set of graduates from all levels of schooling that includes detailed information on family ties, neighbourhoods, schools, class composition, and parents' and children's employers over a period covering years with both high and low unemployment, together with measures of firm performance. We find that strong social ties (parents) are an important determinant for where young workers find their first job. The effects are larger if the graduate's position is "weak" (low education, bad grades), during high unemployment years, and when information on potential openings are likely to be scarce. On the hiring side, by contrast, the effects are larger if the parent's position is "strong" (long tenure, high wage) and if the parent's plant is more productive. The youths appear to benefit from the use of strong social ties through faster access to jobs and by better labour market outcomes as measured a few years after entry. In particular, workers finding their entry jobs through strong social ties are considerably more likely to remain in this job, while experiencing better wage growth than other entrants in the same plant. Firms also appear to benefit from these wage costs (relative to comparable entrants) starting at a lower base. They also benefit on the parents' side; parents' wage growth drops dramatically exactly at the entry of one of their children in the plant, although this is a moment when firm profits tend to be growing. Indeed, the firm-side benefits appear large enough for (at least small) firms to increase job creation at the entry level in years when a child of one of their employees graduates.

Moral Hazard, Incentive Contracts, and Risk: Evidence from Procurement

- Review of Economic Studies---2014---Gregory Lewis,Patrick Bajari

Deadlines and late penalties are widely used to incentivize effort. Tighter deadlines and higher penalties induce higher effort, but increase the agent's risk. We model how these contract terms affect the work rate and time-to-completion in a procurement setting, characterizing the efficient contract design. Using new micro-level data on Minnesota highway construction contracts that includes day-by-day information on work plans, hours worked and delays, we find evidence of ex post moral hazard: contractors adjust their effort level during the course of the contract in response to unanticipated productivity shocks, in a way that is consistent with our theoretical predictions. We next build an econometric model that endogenizes the completion time as a function of the contract terms and the productivity shocks, and simulate how commuter welfare and contractor costs vary across different terms and shocks. Accounting for the traffic delays caused by construction, switching to a more efficient contract design would increase welfare by 22.5% of the contract value while increasing the standard deviation of contractor costs—a measure of risk—by less than 1% of the contract value.

Semiparametric Inference in Dynamic Binary Choice Models

- Review of Economic Studies---2014---A. Norets,X. Tang

We introduce an approach for semiparametric inference in dynamic binary choice models that does not impose distributional assumptions on the state variables unobserved by the econometrician. The proposed framework combines Bayesian inference with partial identification results. The method is applicable to models with finite space of observed states. We demonstrate the method on Rust's model of bus engine replacement. The estimation experiments show that the parametric assumptions about the distribution of the unobserved states can have a considerable effect on the estimates of per-period payoffs. At the same time, the effect of these assumptions on counterfactual conditional choice probabilities can be small for most of the observed states.

Learning Your Comparative Advantages

- Review of Economic Studies---2014---Theodore Papageorgiou

While employed, workers learn their comparative advantage and eventually choose occupations that best match their abilities. This learning process is consistent with a number of key facts about occupational mobility, such as the offsetting worker flows across occupations, the non-random patterns of occupational transitions, and the decline of occupational switching with age. We illustrate how search frictions delay learning and lead to mismatch, thereby reducing worker productivity. Moreover, we explore how different workers perform in different occupations. Are the best workers in one occupation also the best workers in another occupation (one-dimensional model of ability)? Or are some workers good at one occupation and other workers good at a different one (comparative advantage model)? The calibration favours the model of comparative advantage, as opposed to the widely used one-dimensional ability model. We use the calibrated model to investigate how the level of unemployment benefits affects worker productivity.

Optimal Income Taxation with Adverse Selection in the Labour Market

- Review of Economic Studies---2014---Stefanie Stantcheva

This article studies optimal linear and non-linear redistributive income taxation when there is adverse selection in the labour market. Unlike in standard taxation models, firms do not know workers' abilities, and competitively screen them through non-linear compensation contracts, unobservable to the government, in a Miyazaki–Wilson–Spence equilibrium. Adverse selection leads to different optimal tax formulas than in the standard Mirrlees (1971) model because of the use of work hours as a screening tool by firms, which for higher talent workers results in a "rat race", and for lower talent workers in informational rents and cross-subsidies. The most surprising result is that, if the government has sufficiently strong redistributive goals, welfare is higher when there is adverse selection than when there is not. Policies that endogenously affect adverse selection are discussed. The model has practical implications for the interpretation, estimation, and use of taxable income elasticities, which are central to optimal tax design.

Resource Allocation in the Brain

- Review of Economic Studies---2014---Ricardo Alonso,Isabelle Brocas,Juan D. Carrillo

When an individual performs several tasks simultaneously, processing resources must be allocated to different brain systems to produce energy for neurons to fire. Following the evidence from neuroscience, we model the brain as an organization in which a coordinator allocates limited resources to the brain systems responsible for the different tasks. Systems are privately informed about the amount of resources necessary to perform their task and compete to obtain the resources. The coordinator arbitrates the demands while satisfying the resource constraint. We show that the optimal mechanism is to impose to each system with privately known needs a cap in resources that depends negatively on the amount of resources requested by the other system. This allocation can be implemented using a biologically plausible mechanism. Finally, we provide some implications of our theory: (i) performance can be flawless for sufficiently simple tasks, (ii) the dynamic allocation rule exhibits inertia (current allocations are increasing in past needs), and (iii) different cognitive tasks are performed by different systems only if the tasks are sufficiently important.

Pounds That Kill: The External Costs of Vehicle Weight

- Review of Economic Studies---2014---Michael Anderson,Maximilian Auffhammer

Heavier vehicles are safer for their own occupants but more hazardous for other vehicles. Simple theory thus suggests that an unregulated vehicle fleet is inefficiently heavy. Using three separate identification strategies we show that, controlling for own-vehicle weight, being hit by a vehicle that is 1000 pounds heavier generates a 40â€"50% increase in fatality risk. These results imply a total accident-related externality that exceeds the estimated social cost of US carbon emissions and is equivalent to a gas tax of $0.97 per gallon ($136 billion annually). We consider two policies for internalizing this external cost, a weight-varying mileage tax and a gas tax, and find that they are similar for most vehicles. The findings suggest that European gas taxes may be much closer to optimal levels than the US gas tax.

Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program

- Review of Economic Studies---2014---Abhijit V. Banerjee,Esther Duflo

This article uses variation in access to a targeted lending program to estimate whether firms are credit constrained. While both constrained and unconstrained firms may be willing to absorb all the directed credit that they can get (because it may be cheaper than other sources of credit), constrained firms will use it to expand production, while unconstrained firms will primarily use it as a substitute for other borrowing. We apply these observations to firms in India that became eligible for directed credit as a result of a policy change in 1998, and lost eligibility as a result of the reversal of this reform in 2000, and to smaller firms that were already eligible for the preferential credit before 1998 and remained eligible in 2000. Comparing the trends in the sales and the profits of these two groups of firms, we show that there is no evidence that directed credit is being used as a substitute for other forms of credit. Instead, the credit was used to finance more productionâ€ "there was a large acceleration in the rate of growth of sales and profits for these firms in 1998, and a corresponding decline in 2000. There was no change in trends around either date for the small firms. We conclude that many of the firms must have been severely credit constrained, and that the marginal rate of return to capital was very high for these firms.

Inference on Treatment Effects after Selection among High-Dimensional Controlsâ€

- Review of Economic Studies---2014---Alexandre Belloni,Victor Chernozhukov,Christian Hansen

We propose robust methods for inference about the effect of a treatment variable on a scalar outcome in the presence of very many regressors in a model with possibly non-Gaussian and heteroscedastic disturbances. We allow for the number of regressors to be larger than the sample size. To make informative inference feasible, we require the model to be approximately sparse; that is, we require that the effect of confounding factors can be controlled for up to a small approximation error by including a relatively small number of variables whose identities are unknown. The latter condition makes it possible to estimate the treatment effect by selecting approximately the right set of regressors. We develop a novel estimation and uniformly valid inference method for the treatment effect in this setting, called the â€œpost-double-selectionâ€ method. The main attractive feature of our method is that it allows for imperfect selection of the controls and provides confidence intervals that are valid uniformly across a large class of models. In contrast, standard post-model selection estimators fail to provide uniform inference even in simple cases with a small, fixed number of controls. Thus, our method resolves the problem of uniform inference after model selection for a large, interesting class of models. We also present a generalization of our method to a fully heterogeneous model with a binary treatment variable. We illustrate the use of the developed methods with numerical simulations and an application that considers the effect of abortion on crime rates.

When Demand Creates its Own Supply: Saving Traps

- Review of Economic Studies---2014---Christophe Chamley

The mechanism by which aggregate supply creates the income that generates its matching demand (called Say's Law), may not work in a general equilibrium with decentralized markets and savings in bonds or money. Full employment is an equilibrium, but convergence to that state is slow. A self-fulfilling precautionary motive to accumulate bonds (with a zero aggregate supply) can set the economy on an equilibrium path with a fast convergence towards a steady state with unemployment that may be an absorbing state from which no equilibrium path emerges to restore full employment.

Roads and Trade: Evidence from the US

- Review of Economic Studies---2014---Gilles Duranton,Peter Morrow,Matthew Turner

We estimate the effect of interstate highways on the level and composition of trade for US cities. Highways within cities have a large effect on the weight of city exports with an elasticity of approximately 0.5. We find little effect of highways on the total value of exports. Consistent with this, we find that cities with more highways specialize in sectors producing heavy goods.

Fiscal Devaluations

- Review of Economic Studies---2014---Emmanuel Farhi,Gita Gopinath,Oleg Itskhoki

We show that even when the exchange rate cannot be devalued, a small set of conventional fiscal instruments can robustly replicate the real allocations attained under a nominal exchange rate devaluation in a dynamic New Keynesian open economy environment. We perform the analysis under alternative pricing assumptionsâ€" producer or local currency pricing, along with nominal wage stickiness; under arbitrary degrees of asset market completeness and for general stochastic sequences of devaluations. There are two types of fiscal policies equivalent to an exchange rate devaluationâ€" one, a uniform increase in import tariff and export subsidy, and two, a value-added tax increase and a uniform payroll tax reduction. When the devaluations are anticipated, these policies need to be supplemented with a consumption tax reduction and an income tax increase. These policies are revenue neutral. In certain cases equivalence requires, in addition, a partial default on foreign bond holders. We discuss the issues of implementation of these policies, in particular, under the circumstances of a currency union.

Pricing-to-Market: Evidence From Plant-Level Prices

- Review of Economic Studies---2014---Doireann Fitzgerald,Stefanie Haller

We use micro data on Irish producer prices to provide clean evidence on pricing-to-market across a broad range of manufacturing sectors. We have monthly observations on prices charged by the same plant for the same product to buyers in Ireland and the UK, two markets segmented by variable exchange rates. Assuming that relative marginal cost is constant across markets within a plant and a product, this allows us to observe the behaviour of the markup in the UK market relative to the home market. To identify pricing-to-market that goes beyond what is mechanically due to price stickiness, we condition on episodes where prices change. When prices are invoiced in local currency, conditional on prices changing, the ratio of the markup in the foreign market to the markup in the home market increases one-for-one with depreciations of home against foreign currency and decreases one-for-one with appreciations of home against foreign currency, a very particular form of pricing-to-market.

Growing up in a Recession

- Review of Economic Studies---2014---Paola Giuliano,Antonio Spilimbergo

Does the historical macroeconomic environment affect preferences for redistribution? We find that individuals who experienced a recession when young believe that success in life depends more on luck than effort, support more government redistribution, and tend to vote for left-wing parties. The effect of recessions on beliefs is long-lasting. We support our findings with evidence from three different datasets. First, we identify the effect of recessions on beliefs exploiting time and regional variation in macroeconomic conditions using data from the 1972 to 2010 General Social Survey. Our specifications control for nonlinear time-period, life-cycle, and cohort effects, as well as a host of background variables. Second, we rely on data from the National Longitudinal Survey of the High School Class of 1972 to corroborate the ageâ€ "periodâ€ "cohort specification and look at heterogeneous effects of experiencing a recession during early adulthood. Third, using data from the World Value Survey, we confirm our findings with a sample of 37 countries whose citizens experienced macroeconomic disasters at different points in history.

Taxation of Human Capital and Wage Inequality: A Cross-Country Analysis

- Review of Economic Studies---2014---Fatih Guvenen,Burhanettin Kuruscu,Serdar Ozkan

Wage inequality has been significantly higher in the U.S. than in continental European countries (CEU) since the 1970s. Moreover, this inequality gap has further widened during this period as the U.S. has experienced a large increase in wage inequality, whereas the CEU has seen only modest changes. This article studies the role of labour income tax policies for understanding these facts, focusing on male workers. We construct a life cycle model in which individuals decide each period whether to go to school, work, or stay non-employed. Individuals can accumulate human capital either in school or while working. Wage inequality arises from differences across individuals in their ability to learn new skills as well as from idiosyncratic shocks. Progressive taxation compresses the (after-tax) wage structure, thereby distorting the incentives to accumulate human capital, in turn reducing the cross-sectional dispersion of (before-tax) wages. Consistent with the model, we empirically document that countries with more progressive labour income tax schedules have (i) significantly lower before-tax wage inequality at different points in time and (ii) experienced a smaller rise in wage inequality since the early 1980s. We then study the calibrated model and find that these policies can account for half of the difference between the U.S. and the CEU in overall wage inequality and 84% of the difference in inequality at the upper end (log 90â€“50 differential). In a two-country comparison between the U.S. and Germany, the combination of skill-biased technical change and changing progressivity of tax schedules explains all the difference between the evolution of inequality in these two countries since the early 1980s.

A Canonical Model of Choice with Initial Endowments

- Review of Economic Studies---2014---Yusufcan Masatlioglu,Efe Ok

We use the revealed preference method to derive a model of individual decision making when the endowment of an agent provides a reference point that may influence her choices. This model generalizes the classical rational choice model, which views choice as a consequence of â€œutility maximizationâ€ . Instead, our model sees choice as arising from â€œpsychologically constrained utility maximizationâ€ , where the constraints are induced by one's initial endowment. In particular, this model produces status quo bias as a natural consequence (but not necessarily the endowment effect). A range of economic applications identify the predictive and explanatory strength of the model. In particular, we demonstrate that the status quo bias phenomenon reduces the size of the substitution effect in problems of consumption choice.

Optimal Taxation in a Limited Commitment Economy

- Review of Economic Studies---2014---Yena Park

This article studies optimal Ramsey taxation when risk sharing in private insurance markets is imperfect due to limited enforcement. In a limited commitment economy, there are externalities associated with capital and labour because individuals do not take into account that their labour and saving decisions affect aggregate labour and capital supply and wages, and thus the value of autarky. Therefore, a Ramsey government has an additional goal, which is to internalize these externalities of labour and capital to improve risk sharing, in addition to its usual goalâ€” minimizing distortions in financing government expenditures. These two goals drive capital and labour taxes in opposite directions. It is shown that the steady-state optimal capital income taxes are levied only to remove the negative externality of the capital, whereas optimal labour income taxes are set to meet the budgetary needs of the government in the long run, despite the presence of positive externalities of labour.

Bargaining and Reputation in Search Markets

- Review of Economic Studies---2014---Alp Atakan,Mehmet Ekmekci

This article considers a two-sided search market where firms and workers are paired to bargain over a unit surplus. The matching market serves as an endogenous outside option for the agents. The market includes inflexible commitment types who demand a constant portion of any match surplus. The frequency of such types is determined in equilibrium.An equilibrium where there are significant delays in reaching an agreement and where negotiations occasionally break down on the equilibrium path is constructed. Such an equilibrium exists and commitment types affect bargaining dynamics even if the equilibrium frequency of such types is negligible. If the inflows of firms and workers into the market are symmetric, then bargaining involves two-sided reputation building and reputation concerns lead to delays and inefficiency. Access to the market exacerbates bargaining inefficiencies caused by inflexible types. If the inflows of workers and firms are sufficiently asymmetric, then bargaining involves one-sided reputation and commitment types determine the terms of trade. Copyright 2014, Oxford University Press.

Contractual Incompleteness, Unemployment, and Labour Market Segmentation

- Review of Economic Studies---2014---Steffen Altmann,Armin Falk,Andreas Grunewald,David Huffman

This article provides evidence that involuntary unemployment, and the segmentation of labour markets into firms offering "good" and "bad" jobs, may both arise as a consequence of contractual incompleteness. We provide a simple model that illustrates how unemployment and market segmentation may jointly emerge as part of a market equilibrium in environments where work effort is not third-party verifiable. Using experimental labour markets that differ only in the verifiability of effort, we demonstrate empirically that contractual incompleteness can cause unemployment and segmentation. Our data are also consistent with the key channels through which the model explains the emergence of both phenomena. Copyright 2014, Oxford University Press.

Getting Parents Involved: A Field Experiment in Deprived Schools

- Review of Economic Studies---2014---Francesco Avvisati,Marc Gurgand,Nina Guyon,Eric Maurin

This article provides evidence that schools can influence parents' involvement in education, and this has causal effects on pupils' behaviour. Furthermore, it shows how the impact of more involved parents on their children is amplified at the class level by peer group interaction. We build on a large-scale controlled experiment run in a French deprived educational district, where parents of middle-school children were invited to participate in a simple program of parent--school meetings on how to get better involved in their children's education. At the end of the school year, we find that treated families have increased their school-and home-based involvement activities. In turn, pupils of treatment classes have developed more positive behaviour and attitudes in school, notably in terms of truancy and disciplinary sanctions (with effects-size around 15% of a standard deviation). However, test scores did not improve under the intervention. Our results suggest that parents are an input for schooling policies and it is possible to influence important aspects of the schooling process at low cost. Copyright 2014, Oxford University Press.

Rent-sharing, Holdup, and Wages: Evidence from Matched Panel Data

- Review of Economic Studies---2014---David Card,Francesco Devicienti,Agata Maida

Rent-sharing by workers can reduce the incentives for investment if some of the returns to sunk capital are captured in higher wages. We propose a simple measure of this "holdup" effect based on the size of the wage offset for firm-specific capital accumulation. Using Social Security earnings records for workers in the Veneto region of Italy linked to detailed financial data for their employers, we find strong evidence of rent-sharing, with an elasticity of wages with respect to potential rents per worker of around 4%, arising mainly at larger firms with higher price-cost margins. On the other hand, we find little evidence that bargaining lowers the return on investment. Instead, firm-level bargaining appears to split the rents after deducting the full cost of capital. Copyright 2014, Oxford University Press.

Cycles and Instability in a Rock--Paper--Scissors Population Game: A Continuous Time Experiment

- Review of Economic Studies---2014---Timothy Cason,Daniel Friedman,Ed Hopkins

We report laboratory experiments that use new, visually oriented software to explore the dynamics of 3x3 games with intransitive best responses. Each moment, each player is matched against the entire population, here 8 human subjects. A "heat map" offers instantaneous feedback on current profit opportunities. In the continuous slow adjustment treatment, we see distinct cycles in the population mix. The cycle amplitude, frequency and direction are consistent with the standard learning models. Cycles are more erratic and higher frequency in the instantaneous adjustment treatment. Control treatments (using simultaneous matching in discrete time) replicate previous results that exhibit weak or no cycles. Average play is approximated fairly well by Nash equilibrium, and an alternative point prediction, "TASP" (Time Average of the Shapley Polygon), captures some regularities that Nash equilibrium misses. Copyright 2014, Oxford University Press.

Household Choices and Child Development

- Review of Economic Studies---2014---Daniela Del Boca,Christopher Flinn,Matthew Wiswall

The growth in labour market participation among women with young children has raised concerns about its implications for child cognitive development. We estimate a model of the cognitive development process of children nested within an otherwise standard model of household behaviour. The household makes labour supply decisions and provides time and money inputs into the child quality production process during the development period. Our empirical results indicate that both parents' time inputs are important for the cognitive development of their children, particularly when the child is young. Money expenditures are less productive in terms of producing child quality. Comparative statics exercises demonstrate that cash transfers to households with children have small impacts on child quality due to the relatively low impact of money investments on child outcomes and the fact that a significant fraction of the transfer is spent on other household consumption and the leisure of the parents. Copyright 2014, Oxford University Press.

International Trade and Labour Income Risk in the U.S

- Review of Economic Studies---2014---Mine Senses

This article studies empirically the links between international trade and labour income risk faced by manufacturing sector workers in the U.S. We use longitudinal data on workers to estimate time-varying individual income risk at the industry level. We then combine our estimates of persistent labour income risk with measures of exposure to international trade to analyse the relationship between trade and labour income risk. We also study risk estimates from various subsamples of workers, such as those who switched to a different manufacturing industry (or out of the manufacturing sector altogether). Finally, we use these estimates to conduct a welfare analysis evaluating the benefits or costs of trade through the income risk channel. We find import penetration to have a statistically significant association with labour income risk in the U.S. Our welfare calculations suggest that these effects are economically significant. Copyright 2014, Oxford University Press.

Parental Leave and Mothers' Careers: The Relative Importance of Job Protection and Cash Benefits

- Review of Economic Studies---2014---Rafael Lalive,Analia Schlosser,Andreas Steinhauer,Josef Zweimüller

Job protection and cash benefits are key elements of parental leave (PL) systems. We study how these two policy instruments affect return-to-work and medium-run labour market outcomes of mothers of newborn children. Analysing a series of major PL policy changes in Austria, we find that longer cash benefits lead to a significant delay in return-to-work, particularly so in the period that is job-protected. Prolonged parental leave absence induced by these policy changes does not appear to hurt mothers' labour market outcomes in the medium run. We build a non-stationary model of job search after childbirth to isolate the role of the two policy instruments. The model matches return-to-work and return to same employer profiles under the various factual policy configurations. Counterfactual policy simulations indicate that a system that combines cash with protection dominates other systems in generating time for care immediately after birth while maintaining mothers' medium-run labour market attachment.

Resale and Rent-Seeking: An Application to Ticket Markets

- Review of Economic Studies---2014---Phillip Leslie,Alan Sorensen

We estimate an equilibrium model of ticket resale in which consumers' and brokers' decisions in the primary market reflect rational expectations about the resale market. Estimation is based on a unique dataset that merges transaction details from both the primary and secondary markets for tickets to major rock concerts. In our model, the presence of a resale market permits tickets to be traded from low-value to high-value consumers, but it also stimulates costly efforts by consumers and brokers to obtain underpriced tickets in the primary market. We estimate that observed levels of resale increase allocative efficiency by 5% on average, but that a third of this increase is offset by increases in costly rent-seeking in the primary market and transaction costs in the resale market.

Self-Organization for Collective Action: An Experimental Study of Voting on Sanction Regimes

- Review of Economic Studies---2014---Thomas Markussen,Louis Putterman,Jean-Robert Tyran

Entrusting the power to punish to a central authority is a hallmark of civilization, yet informal or horizontal sanctions have attracted more attention of late. We study experimentally a collective action dilemma and test whether subjects choose a formal sanction scheme that costs less than the surplus it makes possible, as predicted by standard economic theory, or instead opt for the use of informal sanctions (IS) or no sanctions. Our subjects choose, and succeed in using, IS surprisingly often, their voting decisions being responsive to the cost of formal sanctions. Adoption by voting enhances the efficiency of both IS and non-deterrent formal sanctions. Results are qualitatively confirmed under several permutations of the experimental design.

Higher Order Risk Attitudes, Demographics, and Financial Decisions

- Review of Economic Studies---2014---Charles Noussair,Stefan Trautmann,Gijs Kuilen

We study the prevalence of the higher order risk attitudes of prudence and temperance in an experiment with a large demographically representative sample of participants. Under expected utility, prudence and temperance are defined by a convex first, and concave second, derivative of the utility function, and have direct implications for saving behaviour and portfolio choice. In the experiment, participants make pairwise choices that distinguish prudent from imprudent, and temperate from intemperate, behaviour. We correlate individuals' risk aversion, prudence, and temperance levels to their demographic profiles and their financial decisions outside the experiment. We observe that the majority of individuals' decisions are consistent with risk aversion, prudence, and temperance. Prudence is positively correlated with saving, as predicted by precautionary saving theory. Temperance is negatively correlated with the riskiness of portfolio choices.

Exogenous Information, Endogenous Information, and Optimal Monetary Policy

- Review of Economic Studies---2014---Luigi Paciello,Mirko Wiederholt

This article studies optimal monetary policy when decision-makers in firms choose how much attention they devote to aggregate conditions. When the amount of attention that decision-makers in firms devote to aggregate conditions is exogenous, complete price stabilization is optimal only in response to shocks that cause efficient fluctuations under perfect information. When decision-makers in firms choose how much attention they devote to aggregate conditions, complete price stabilization is optimal also in response to shocks that cause inefficient fluctuations under perfect information. Hence, recognizing that decision-makers in firms can choose how much attention they devote to aggregate conditions has major implications for optimal policy.

Pride and Prejudice: Using Ethnic-Sounding Names and Inter-Ethnic Marriages to Identify Labour Market Discrimination

- Review of Economic Studies---2014---Yona Rubinstein,Dror Brenner

Do labour markets discriminate against workers with particular ethnic-sounding names? We use non-random sorting into inter-ethnic marriage and salient differences between Sephardic and Ashkenazi surnames to evaluate the causal impact of Sephardic affiliation on wages. Using the 1995 Israeli Census, we estimate the effect of a Sephardic sounding surname on wages. We first compare the wages of Israeli Jewish males born to Sephardic fathers and Ashkenazi mothers (SA), who are more likely to carry a Sephardic surname, with the wages of Israeli Jewish males born to Ashkenazi fathers and Sephardic mothers (AS). We find that Israeli labour markets discriminate based on perceived ethnicity: SA workers earn significantly less than their AS counterparts. We then exploit the custom of women to adopt their husbands' surnames to disentangle actual ethnicity from the ethnicity perceived by the market. Consistent with ethnic discrimination based on surnames, we find that it is father-in-law's ethnicity--rather than father's ethnicity--that shapes female wage rates. Finally, we find that labour markets discriminate based on surname only when those names provide additional information about ethnicity. When ethnicity can be discerned from skin tone, surnames do not provide additional explanatory power with respect to wages.

A Major in Science? Initial Beliefs and Final Outcomes for College Major and Dropout

- Review of Economic Studies---2014---Ralph Stinebrickner,Todd Stinebrickner

Taking advantage of unique longitudinal data, we provide the first characterization of what college students believe at the time of entrance about their final major, relate these beliefs to actual major outcomes, and provide an understanding of why students hold the initial beliefs about majors that they do. The data collection and analysis are based directly on a conceptual model in which a student's final major is best viewed as the end result of a learning process. We find that students enter school quite optimistic about obtaining a science degree, but that relatively few students end up graduating with a science degree. The substantial overoptimism about completing a degree in science can be attributed largely to students beginning school with misperceptions about their ability to perform well academically in science.

Individual Learning and Cooperation in Noisy Repeated Games

- Review of Economic Studies---2014---Yuichi Yamamoto

We investigate whether two players in a long-run relationship can maintain cooperation when the details of the underlying game are unknown. Specifically, we consider a new class of repeated games with private monitoring, where an unobservable state of the world influences the payoff functions and/or the monitoring structure. Each player privately learns the state over time but cannot observe what the opponent learned. We show that there are robust equilibria in which players eventually obtain payoffs as if the true state were common knowledge and players played a "belief-free" equilibrium. We also provide explicit equilibrium constructions in various economic examples. Copyright 2014, Oxford University Press.

Endogenous Group Formation via Unproductive Costs

- Review of Economic Studies---2013---Jason Aimone,Laurence R. Iannaccone,Michael Makowsky,Jared Rubin

Sacrifice is widely believed to enhance cooperation in churches, communes, gangs, clans, military units, and many other groups. We find that sacrifice can also work in the lab, apart from special ideologies, identities, or interactions. Our subjects play a modified VCM game--one in which they can voluntarily join groups that provide reduced rates of return on private investment. This leads to both endogenous sorting (because free-riders tend to reject the reduced-rate option) and substitution (because reduced private productivity favours increased club involvement). Seemingly unproductive costs thus serve to screen out free-riders, attract conditional cooperators, boost club production, and increase member welfare. The sacrifice mechanism is simple and particularly useful where monitoring difficulties impede punishment, exclusion, fees, and other more standard solutions. Copyright 2013, Oxford University Press.

Broadband Internet: An Information Superhighway to Sex Crime?

- Review of Economic Studies---2013---Manudeep Bhuller,Tarjei Havnes,Edwin Leuven,Magne Mogstad

Does internet use trigger sex crime? We use unique Norwegian data on crime and internet adoption to shed light on this question. A public program with limited funding rolled out broadband access points in 2000--2008, and provides plausibly exogenous variation in internet use. Our instrumental variables estimates show that internet use is associated with a substantial increase in both reports, charges and convictions of rape and other sex crimes. We present a conceptual framework that highlights three mechanisms for how internet use may affect reported sex crime, namely a reporting effect, a matching effect on potential offenders and victims, and a direct effect on sex crime propensity. To investigate the importance of these mechanisms, we use data on individual reporting behaviour, police investigations, and criminal charges and convictions. None of the analyses we perform suggest that the positive relationship between internet use and sex crime is driven by changes in reporting behaviour. Our findings suggest that the direct effect on sex crime propensity is positive and non-negligible, possibly as a result of increased consumption of pornography. Copyright 2013, Oxford University Press.

Estimating Consumption Economies of Scale, Adult Equivalence Scales, and Household Bargaining Power

- Review of Economic Studies---2013---Martin Browning,Pierre Chiappori,Arthur Lewbel

How much income would a woman living alone require to attain the same standard of living that she would have if she were married? What percentage of a married couple’s expenditures are controlled by the husband? How much money does a couple save on consumption goods by living together versus living apart? We propose and estimate a collective model of household behaviour that permits identification and estimation of concepts such as these. We model households in terms of the utility functions of its members, a bargaining or social welfare function, and a consumption technology function. We demonstrate generic non-parametric identification of the model, and hence of a version of adult equivalence scales that we call "indifference scales", as well as consumption economies of scale, the household's resource sharing rule or members' bargaining power, and other related concepts. Copyright 2013, Oxford University Press.

On the Correlation Structure of Microstructure Noise: A Financial Economic Approach

- Review of Economic Studies---2013---Francis Diebold,Georg Strasser

We introduce the financial economics of market microstructure to the financial econometrics of asset return volatility estimation. In particular, we derive the cross-correlation function between latent returns and market microstructure noise in several leading microstructure environments. We propose and illustrate several corresponding theory-inspired volatility estimators, which we apply to stock and oil prices. Our analysis and results are useful for assessing the validity of the frequently assumed independence of latent price and microstructure noise, for explaining observed cross-correlation patterns, for predicting as-yet undiscovered patterns, and most importantly, for promoting improved microstructure-based volatility empirics and improved empirical microstructure studies. Simultaneously and conversely, our analysis is far from the last word on the subject, as it is based on stylized benchmark models; it comes with a "call to action" for development and use of richer microstructure models in volatility estimation and beyond. Copyright 2013, Oxford University Press.

R&D and Productivity: Estimating Endogenous Productivity

- Review of Economic Studies---2013---Ulrich Doraszelski,Jordi Jaumandreu

We develop a model of endogenous productivity change to examine the impact of the investment in knowledge on the productivity of firms. Our dynamic investment model extends the tradition of the knowledge capital model of Griliches (1979) that has remained a cornerstone of the productivity literature. Rather than constructing a stock of knowledge capital from a firm's observed R&D expenditures, we consider productivity to be unobservable to the econometrician. Our approach accounts for uncertainty, non-linearity, and heterogeneity across firms in the link between R&D and productivity. We also derive a novel estimator for production functions in this setting. Using an unbalanced panel of more than 1800 Spanish manufacturing firms in nine industries during the 1990s, we provide evidence of non-linearities as well as economically significant uncertainties in the R&D process. R&D expenditures play a key role in determining the differences in productivity across firms and the evolution of firm-level productivity over time. Copyright 2013, Oxford University Press.

Commodity Price Shocks and Civil Conflict: Evidence from Colombia

- Review of Economic Studies---2013---Oeindrila Dube,Juan Vargas

How do income shocks affect armed conflict? Theory suggests two opposite effects. If labour is used to appropriate resources violently, higher wages may lower conflict by reducing labour supplied to appropriation. This is the opportunity cost effect. Alternatively, a rise in contestable income may increase violence by raising gains from appropriation. This is the rapacity effect. Our article exploits exogenous price shocks in international commodity markets and a rich dataset on civil war in Colombia to assess how different income shocks affect conflict. We examine changes in the price of agricultural goods (which are labour intensive) as well as natural resources (which are not). We focus on Colombia's two largest exports, coffee and oil. We find that a sharp fall in coffee prices during the 1990s lowered wages and increased violence differentially in municipalities cultivating more coffee. This is consistent with the coffee shock inducing an opportunity cost effect. In contrast, a rise in oil prices increased both municipal revenue and violence differentially in the oil region. This is consistent with the oil shock inducing a rapacity effect. We also show that this pattern holds in six other agricultural and natural resource sectors, providing evidence that price shocks affect conflict in different directions depending on the type of the commodity. Copyright 2013, Oxford University Press.

Information Manipulation, Coordination, and Regime Change

- Review of Economic Studies---2013---Chris Edmond

This article presents a model of information manipulation and political regime change. There is a regime that can be overthrown but only if enough citizens participate in an uprising. Citizens are imperfectly informed about the regime's ability to resist an uprising and the regime can engage in propaganda that, taken at face-value, makes the regime seem stronger than it truly is. This coordination game with endogenous information manipulation has a unique equilibrium and the article gives a complete analytic characterization of the equilibrium's comparative statics. Holding fixed the number of signals available to citizens, if the per-unit signal precision is sufficiently high then the regime is harder to overthrow. In contrast, if the number of signals increases, so that both total signal precision and the regime's costs of manipulation rise together, then the regime is easier to overthrow unless there are strong economies of scale in information control. Copyright 2013, Oxford University Press.

The Economic Returns to Social Interaction: Experimental Evidence from Microfinance

- Review of Economic Studies---2013---Benjamin Feigenberg,Erica Field,Rohini Pande

Microfinance clients were randomly assigned to repayment groups that met either weekly or monthly during their first loan cycle, and then graduated to identical meeting frequency for their second loan. Long-run survey data and a follow-up public goods experiment reveal that clients initially assigned to weekly groups interact more often and exhibit a higher willingness to pool risk with group members from their first loan cycle nearly 2 years after the experiment. They were also three times less likely to default on their second loan. Evidence from an additional treatment arm shows that, holding meeting frequency fixed, the pattern is insensitive to repayment frequency during the first loan cycle. Taken together, these findings constitute the first experimental evidence on the economic returns to social interaction, and provide an alternative explanation for the success of the group lending model in reducing default risk. Copyright 2013, Oxford University Press.

Capital Flows to Developing Countries: The Allocation Puzzle

- Review of Economic Studies---2013---Pierre-Olivier Gourinchas,Olivier Jeanne

The textbook neoclassical growth model predicts that countries with faster productivity growth should invest more and attract more foreign capital. We show that the allocation of capital flows across developing countries is the opposite of this prediction: capital does not flow more to countries that invest and grow more. We call this puzzle the "allocation puzzle". Using a wedge analysis, we find that the pattern of capital flows is driven by national saving: the allocation puzzle is a saving puzzle. Further disaggregation of capital flows reveals that the allocation puzzle is also related to the pattern of accumulation of international reserves. The solution to the "allocation puzzle", thus, lies at the nexus between growth, saving, and international reserve accumulation. We conclude with a discussion of some possible avenues for research. Copyright 2013, Oxford University Press.

Contracting under Incomplete Information and Social Preferences: An Experimental Study

- Review of Economic Studies---2013---Eva Hoppe,Patrick Schmitz

Principal--agent models in which the agent has access to private information before a contract is signed are a cornerstone of contract theory. We have conducted an experiment with 720 participants to explore whether the theoretical insights are reflected by the behaviour of subjects in the laboratory and to what extent deviations from standard theory can be explained by social preferences. Investigating settings with both exogenous and endogenous information structures, we find that agency theory is indeed useful to qualitatively predict how variations in the degree of uncertainty affect subjects' behaviour. Regarding the quantitative deviations from standard predictions, our analysis based on several control treatments and quantal response estimations shows that agents' behaviour can be explained by social preferences that are less pronounced than in conventional ultimatum games. Principals' own social preferences are not an important determinant of their behaviour. However, when the principals make contract offers, they anticipate that social preferences affect agents' behaviour. Copyright 2013, Oxford University Press.

Stochastic Search Equilibrium

- Review of Economic Studies---2013---Giuseppe Moscarini,Fabien Postel-Vinay

We study equilibrium wage and employment dynamics in a class of popular search models with wage posting, in the presence of aggregate productivity shocks. Firms offer and commit to (Markov) contracts, which specify a wage contingent on all payoff-relevant states, but must pay equally all of their workers, who have limited commitment and are free to quit at any time. We find sufficient conditions for the existence and uniqueness of a stochastic search equilibrium in such contracts, which is Rank Preserving [RP]: larger and more productive firms offer more generous contracts to their workers in all states of the world. On the RP equilibrium path, turnover is always efficient as workers always move from less to more productive firms. The resulting stochastic dynamics of firm size provide an intuitive explanation for the empirical finding that large employers have more cyclical job creation (Moscarini and Postel-Vinay, 2012). Finally, computation of RP equilibrium contracts is tractable. Copyright 2013, Oxford University Press.

The Proximity-Concentration Tradeoff under Uncertainty

- Review of Economic Studies---2013---Natalia Ramondo,Veronica Rappoport,Kim Ruhl

In this article, we analyse the firm's choice between serving a foreign market through exports or through foreign affiliate sales in an environment characterized by country-specific shocks to the cost of production. Our model predicts that country pairs with less-correlated output fluctuations trade more, relative to affiliate sales, whereas countries with more-volatile fluctuations are served relatively more by exporters than by foreign affiliates selling abroad. Using detailed data on trade and affiliate sales, we find empirical support for our model's predictions. Copyright 2013, Oxford University Press.

Candidates, Credibility, and Re-election Incentives

- Review of Economic Studies---2013---Richard Van Weelden

I study elections between citizen-candidates who cannot make binding policy commitments before taking office, but who are accountable to voters due to the possibility of re-election. In each period a representative voter chooses among heterogeneous candidates with known policy preferences. The elected candidate chooses the policy to implement, and how much rent-seeking to engage in, when in office. As the voter decides both which candidate to elect and, subsequently, whether the candidate is retained, this framework integrates elements of electoral competition and electoral accountability. I show that, in the best stationary equilibrium, when utility functions are concave over policy, non-median candidates are elected over candidates with policy preferences more closely aligned with the voter. In this equilibrium, there are two candidates who are elected at some history, and the policies these candidates implement in office do not converge. This divergence incentivizes candidates to engage in less rent-seeking, increasing voter welfare. Copyright 2013, Oxford University Press.

Why Do Voters Dismantle Checks and Balances?

- Review of Economic Studies---2013---Daron Acemoglu,James Robinson,Ragnar Torvik

Voters often dismantle constitutional checks and balances on the executive. If such checks and balances limit presidential abuses of power and rents, why do voters support their removal? We argue that by reducing politician rents, checks and balances also make it cheaper to bribe or influence politicians through non-electoral means. In weakly institutionalized polities where such non-electoral influences, particularly by the better organized elite, are a major concern, voters may prefer a political system without checks and balances as a way of insulating politicians from these influences. When they do so, they are effectively accepting a certain amount of politician (presidential) rents in return for redistribution. We show that checks and balances are less likely to emerge when the elite is better organized and is more likely to be able to influence or bribe politicians, and when inequality and potential taxes are high (which makes redistribution more valuable to the majority). We also provide case study evidence from Bolivia, Ecuador, and Venezuela consistent with the model. Copyright 2013, Oxford University Press.

What Drives Taxi Drivers? A Field Experiment on Fraud in a Market for Credence Goods

- Review of Economic Studies---2013---Loukas Balafoutas,Adrian Beck,Rudolf Kerschbamer,Matthias Sutter

Credence goods are characterized by informational asymmetries between sellers and consumers that invite fraudulent behaviour by sellers. This article presents a natural field experiment on taxi rides in Athens, Greece, set up to measure different types of fraud and to examine the influence of passengers' presumed information and income on the extent of fraud. We find that passengers with inferior information about optimal routes are taken on significantly longer detours, while lack of information on the local tariff system increases the likelihood of manipulated bills by about fifteen percentage points. Passengers' perceived income seems to have no effect on fraud. Copyright 2013, Oxford University Press.

Identification-Robust Estimation and Testing of the Zero-Beta CAPM

- Review of Economic Studies---2013---Marie-Claude Beaulieu,Jean-Marie Dufour,Lynda Khalaf

We propose exact simulation-based procedures for: (i) testing mean-variance efficiency when the zero-beta rate is unknown; (ii) building confidence intervals for the zero-beta rate. On observing that this parameter may be weakly identified, we propose likelihood-ratio-type tests as well as Fieller-type procedures based on a Hotelling-HAC statistic, which are robust to weak identification and allow for non-Gaussian distributions including parametric GARCH structures. The Fieller-Hotelling-HAC procedure also accounts (asymptotically) for general forms of heteroskedasticity and autocorrelation. We propose confidence sets for the zero-beta rate based on "inverting" exact tests for this parameter; for both procedures proposed, these sets can be interpreted as multivariate extensions of the classic Fieller method for inference on ratios. The exact distribution of likelihood-ratio-type statistics for testing efficiency is studied under both the null and the alternative hypotheses. The relevant nuisance parameter structure is established and finite-sample bound procedures are proposed, which extend and improve available Gaussian-specific bounds. Finite-sample distributional invariance results are also demonstrated analytically for the HAC statistic proposed by MacKinlay and Richardson (1991) . We study invariance to portfolio repacking for the tests and confidence sets proposed. The statistical properties of the proposed methods are analysed through a Monte Carlo study and compared with alternative available methods. Empirical results on NYSE returns show that exact confidence sets are very different from asymptotic ones, and allowing for non-Gaussian distributions affects inference results. Simulation and empirical evidence suggests that likelihood-ratio-type statistics--with p-values corrected using the Maximized Monte Carlo test method--are generally preferable to their multivariate Fieller-Hotelling-HAC counterparts from the viewpoints of size control and power. Copyright 2013, Oxford University Press.

A Foundation for Markov Equilibria in Sequential Games with Finite Social Memory -super-*

- Review of Economic Studies---2013---V Bhaskar,George Mailath,Stephen Morris

We study stochastic games with an infinite horizon and sequential moves played by an arbitrary number of players. We assume that social memory is finite--every player, except possibly one, is finitely lived and cannot observe events that are sufficiently far back in the past. This class of games includes games between a long-run player and a sequence of short-run players, and games with overlapping generations of players. An equilibrium is purifiable if some close-by behaviour is consistent with equilibrium when agents' payoffs in each period are perturbed additively and independently. We show that only Markov equilibria are purifiable when social memory is finite. Thus if a game has at most one long-run player, all purifiable equilibria are Markov. Copyright 2013, Oxford University Press.

Overconfidence and Social Signalling

- Review of Economic Studies---2013---Stephen Burks,Jeffrey Carpenter,Lorenz Goette,Aldo Rustichini

Evidence from both psychology and economics indicates that individuals give statements that appear to overestimate their ability compared to that of others. We test three theories that predict such relative overconfidence. The first theory argues that overconfidence can be generated by Bayesian updating from a common prior and truthful statements if individuals do not know their true type. The second theory suggests that self-image concerns asymmetrically affect the choice to receive new information about one's abilities, and this asymmetry can produce overconfidence. The third theory is that overconfidence is induced by the desire to send positive signals to others about one's own skill; this suggests either a bias in judgement, strategic lying, or both. We formulate this theory precisely. Using a large data set of relative ability judgements about two cognitive tests, we reject the restrictions imposed by the Bayesian model and also reject a key prediction of the self-image models that individuals with optimistic beliefs will be less likely to search for further information about their skill because this information might shatter their self-image. We provide evidence that personality traits strongly affect relative ability judgements in a pattern that is consistent with the third theory of social signalling. Our results together suggest that overconfidence in statements is more likely to be induced by social concerns than by either of the other two factors. Copyright 2013, Oxford University Press.

The Binarized Scoring Rule

- Review of Economic Studies---2013---Tanjim Hossain,Ryo Okui

We introduce a simple method for constructing a scoring rule to elicit an agent's belief about a random variable that is incentive compatible irrespective of her risk-preference. The agent receives a fixed prize when her prediction error, defined by a loss function specified in the incentive scheme, is smaller than an independently generated random number and earns a smaller prize otherwise. Adjusting the loss function according to the belief elicitation objective, the scoring rule can be used in a rich assortment of situations. Moreover, the scoring rule can be incentive compatible even when the agent is not an expected utility maximizer. Results from our probability elicitation experiments show that subjects' predictions are closer to the true probability under this scoring rule compared to the quadratic scoring rule. Copyright 2013, Oxford University Press.

Sales Talk, Cancellation Terms and the Role of Consumer Protection

- Review of Economic Studies---2013---Roman Inderst,Marco Ottaviani

This article analyses contract cancellation and product return policies in markets in which sellers advise customers about the suitability of their offering. When customers are fully rational, it is optimal for sellers to offer the right to cancel or return on favourable terms. A generous return policy makes the seller's "cheap talk" at the point of sale credible. This observation provides a possible explanation for the excess refund puzzle and also has implications for the management of customer reviews. When customers are credulous, instead, sellers have an incentive to set unfavourable terms to exploit the inflated beliefs they induce in their customers. The imposition of a minimum statutory standard improves welfare and consumer surplus when customers are credulous. In contrast, competition policy reduces contractual inefficiencies with rational customers, but it is not effective with credulous customers. Copyright 2013, Oxford University Press.

Efficient Allocations in Dynamic Private Information Economies with Persistent Shocks: A First-Order Approach

- Review of Economic Studies---2013---Marek Kapicka

This article studies efficient allocations in a dynamic private information economy with a continuum of idiosyncratic shocks that are persistent. I develop a first-order approach for this environment and show that the problem has a simple recursive structure that relies on only a small number of state variables, making the problem tractable. I find sufficient conditions that guarantee that the first-order approach is valid. To illustrate the first-order approach I numerically compute the efficient allocations in a Mirrleesean economy with productivity shocks that follow a random walk and verify the validity of the first-order approach. I show that persistent shocks create a new trade-off where the social planner decreases the informational rent of the agent today at the cost of providing higher insurance in the future. Copyright 2013, Oxford University Press.

Why are Married Men Working So Much? An Aggregate Analysis of Intra-Household Bargaining and Labour Supply

- Review of Economic Studies---2013---John A. Knowles

Are macro-economists mistaken in ignoring bargaining between spouses? This article argues that models of intra-household allocation could be useful for understanding aggregate labour supply trends in the U.S. since the 1970s. A simple calculation suggests that the standard model without bargaining predicts a 19% decline in married-male labour supply in response to the narrowing of the gender gap in wages since the 1970s. However married-men's paid labour remained stationary over the period from the mid 1970s to the recession of 2001. This article develops and calibrates to U.S. time-use survey data a model of marital bargaining in which time allocations are determined jointly with equilibrium marriage and divorce rates. The results suggest that bargaining effects raised married-men's labour supply by about 2.1 weekly hours over the period, and reduced that of married women by 2.7 hours. Bargaining therefore has a relatively small impact on aggregate labour supply, but is critical for trends in female labour supply. Also, the narrowing of the gender wage gap is found to account for a weekly 1.5 hour increase in aggregate labour supply. Copyright 2013, Oxford University Press.

On-the-Job Search and Precautionary Savings

- Review of Economic Studies---2013---Jeremy Lise

In this article, I develop and estimate a model of on-the-job search in which risk averse workers choose search effort and can borrow or save using a single risk free asset. I derive the implications for optimal savings behaviour in this environment and relate this to the frictions that characterize the endogenous earnings process implied by on-the-job search. Savings behaviour depends in a very intuitive way on the rate at which offers are received, the rate at which jobs are destroyed, and a worker's current rank in the wage distribution. The implication is that workers, who are identical in terms of preferences and opportunities, have substantially different savings behaviour depending on their history and current position in the wage distribution. The mechanism that generates the substantial differences in savings behaviour in the model is the dynamic of the "wage ladder" resulting from the search process. There is an important asymmetry between the incremental wage increases generated by on-the-job search (climbing the ladder) and the drop in income associated with job loss (falling off the ladder). The behaviour of workers in low paying jobs is primarily governed by the expectation of wage growth, while the behaviour of workers near the top of the distribution is driven by the possibility of job loss. The distributions of earnings, wealth, and consumption implied by the model (suitably aggregated) align reasonably well with the data, with the notable exception of implying substantially less concentration of wealth among the richest one percent of the population. Copyright 2013, Oxford University Press.

War Signals: A Theory of Trade, Trust, and Conflict

- Review of Economic Studies---2013---Dominic Rohner,Mathias Thoenig,Fabrizio Zilibotti

We construct a theory of persistent civil conflicts, where persistence is driven by the endogenous dynamics of inter-ethnic trust and trade. In times of peace, agents belonging to two groups are randomly matched to trade bilaterally. Trade hinges on trust and cooperation. The onset of conflict signals that the aggressor has a low propensity to cooperate, harming future trust and trade. Agents observe the history of conflicts and update their beliefs over time. The theory predicts that civil wars are persistent. Moreover, even accidental conflicts that do not reflect economic fundamentals erode trust, and can plunge a society into a vicious cycle of recurrent conflicts (a war trap). The incidence of conflict can be reduced by policies abating cultural barriers, fostering inter-ethnic trade and human capital, and shifting beliefs. Coercive peace policies, such as peacekeeping forces or externally imposed regime changes, have no enduring effects. Copyright 2013, Oxford University Press.

Household Need for Liquidity and the Credit Card Debt Puzzle

- Review of Economic Studies---2013---Irina Telyukova

In the 2001 U.S. Survey of Consumer Finances, 27% of households report simultaneously revolving significant credit card debt and holding sizeable amounts of low-return liquid assets; this is known as the "credit card debt puzzle". In this article, I quantitatively evaluate the role of liquidity demand in accounting for this puzzle: households that accumulate credit card debt may not pay it off using their money in the bank, because they anticipate needing that money in situations where credit cards cannot be used. I characterize the puzzle in survey data, and calibrate a dynamic stochastic heterogeneous-agent model of household portfolio choice, where consumer credit and liquidity coexist as means of consumption and saving, where households consume a cash good and a credit good, and where cash consumption is subject to uncertainty. The model accounts for between 44% and 56% of the households in the data who hold consumer debt and liquidity simultaneously, and for 100% of the liquidity held by a median such household. Under reasonable calibration alternatives, the model can capture the entire puzzle group size as well. One-half of money demand in the model is precautionary. Copyright 2013, Oxford University Press.

Estimating Ethnic Preferences Using Ethnic Housing Quotas in Singapore

- Review of Economic Studies---2013---Maisy Wong

This article estimates people's taste for living with own-ethnic-group neighbours using variation from a natural experiment in Singapore: ethnic housing quotas. I develop a location choice model that informs the use of policy variation from the quotas to address endogeneity issues well known in the social interactions literature. I assembled a dataset on neighbourhood-level ethnic proportions by matching more than 500,000 names in the phonebook to ethnicities. I find that all groups want to live with some own-ethnic-group neighbours but they also exhibit inverted U-shaped preferences so that once a neighbourhood has enough own ethnic neighbours, they would rather add a new neighbour from other groups. Welfare simulations show that about 30% of the neighbourhoods are within one standard deviation of the first-best allocation of ethnic groups. Copyright 2013, Oxford University Press.

Groupthink: Collective Delusions in Organizations and Markets

- Review of Economic Studies---2013---Roland Benabou

This article investigates collective denial and willful blindness in groups, organizations, and markets. Agents with anticipatory preferences, linked through an interaction structure, choose how to interpret and recall public signals about future prospects. Wishful thinking (denial of bad news) is shown to be contagious when it is harmful to others, and self-limiting when it is beneficial. Similarly, with Kreps--Porteus preferences, willful blindness (information avoidance) spreads when it increases the risks borne by others. This general mechanism can generate multiple social cognitions of reality, and in hierarchies it implies that realism and delusion will trickle down from the leaders. The welfare analysis differentiates group morale from groupthink and identifies a fundamental tension in organizations' attitudes towards dissent. Contagious exuberance can also seize asset markets, generating investment frenzies and crashes. Copyright 2013, Oxford University Press.

Regime Switches, Agents' Beliefs, and Post-World War II U.S. Macroeconomic Dynamics

- Review of Economic Studies---2013---Francesco Bianchi

The evolution of the U.S. economy over the past 55 years is examined through the lens of a micro-founded model that allows for changes in the behaviour of the Federal Reserve and in the volatility of structural shocks. Agents are aware of the possibility of regime changes and their beliefs matter for the law of motion underlying the macroeconomy. Monetary policy is identified by repeated fluctuations between a Hawk and a Dove regime, with the latter prevailing in the 1970s and during the recent crisis. To explore the role of agents' beliefs I introduce a new class of counterfactual simulations: beliefs counterfactuals. If, in the 1970s, agents had anticipated the appointment of an extremely conservative Chairman, inflation would have been lower and the inflation-output trade-off more favourable. The large drop in inflation and output at the end of 2008 would have been mitigated if agents had expected the Federal Reserve to be exceptionally active in the near future. Copyright 2013, Oxford University Press.

Liquidity, Risk, and Occupational Choices

- Review of Economic Studies---2013---Matteo Bobba

We explore which financial constraints matter most in the choice of becoming an entrepreneur. We consider a randomly assigned welfare programme in rural Mexico and show that cash transfers significantly increase entry into entrepreneurship. We then exploit cross-household variation in the timing of these transfers and find that current occupational choices are significantly more responsive to the transfers expected for the future than to those currently received. Guided by a simple occupational choice model, we argue that the programme has promoted entrepreneurship by enhancing willingness to bear risk as opposed to simply relaxing current liquidity constraints. Copyright 2013, Oxford University Press.

Leadership, Coordination, and Corporate Culture

- Review of Economic Studies---2013---Markus Brunnermeier,Laura Veldkamp

What is the role of leaders in large organizations? We propose a model in which a leader helps to overcome a misalignment of followers' incentives that inhibits coordination, while adapting the organization to a changing environment. Good leadership requires vision and special personality traits such as conviction or resoluteness to enhance the credibility of mission statements and to effectively rally agents around them. Resoluteness allows leaders to overcome a time-consistency problem that arises from the fact that leaders learn about the best course of action for the organization over time. However, resoluteness also inhibits bottom-up information flow from followers. The optimal level of resoluteness depends on followers' signal quality and the corporate culture of the organization.

Efficient Likelihood Evaluation of State-Space Representations

- Review of Economic Studies---2013---Roman Liesenfeld,Guilherme Moura,Jean-Francois Richard,Hariharan Dharmarajan

We develop a numerical procedure that facilitates efficient likelihood evaluation in applications involving non-linear and non-Gaussian state-space models. The procedure employs continuous approximations of filtering densities, and delivers unconditionally optimal global approximations of targeted integrands to achieve likelihood approximation. Optimized approximations of targeted integrands are constructed via efficient importance sampling. Resulting likelihood approximations are continuous functions of model parameters, greatly enhancing parameter estimation. We illustrate our procedure in applications to dynamic stochastic general equilibrium models.

Should Day Care be Subsidized?

- Review of Economic Studies---2013---David Domeij,Paul Klein

In an economy with distortionary taxes on labour, can subsidies on day care, financed by increased taxes, raise welfare by encouraging women with small children to work? We show, within a stylized life-cycle framework, that the Ramsey optimal policy consists in equalizing consumption/leisure wedges over the life cycle. A simple way to implement this is to make day care expenses tax deductible. Modifying and calibrating our model to fit some key facts about labour supply in Germany, we find that the reform that maximizes a distribution-neutral social welfare function involves subsidizing day care at a rate of 50% and leads to a near doubling of labour supply for mothers with small children. The overall welfare gain from this reform corresponds to a 0.4 percent increase in consumption.

Insurance and Taxation over the Life Cycle

- Review of Economic Studies---2013---Emmanuel Farhi

We consider a dynamic Mirrlees economy in a life-cycle context and study the optimal insurance arrangement. Individual productivity evolves as a Markov process and is private information. We use a first-order approach in discrete and continuous time and obtain novel theoretical and numerical results. Our main contribution is a formula describing the dynamics for the labour-income tax rate. When productivity is an AR(1) our formula resembles an AR(1) with a trend where: (i) the auto-regressive coefficient equals that of productivity; (ii) the trend term equals the covariance productivity with consumption growth divided by the Frisch elasticity of labour; and (iii) the innovations in the tax rate are the negative of consumption growth. The last property implies a form of short-run regressivity. Our simulations illustrate these results and deliver some novel insights. The average labour tax rises from 0% to 37% over 40 years, whereas the average tax on savings falls from 12% to 0% at retirement. We compare the second best solution to simple history-independent tax systems, calibrated to mimic these average tax rates. We find that age-dependent taxes capture a sizable fraction of the welfare gains. In this way, our theoretical results provide insights into simple tax systems.

Banking: A New Monetarist Approach

- Review of Economic Studies---2013---Chao Gu,Fabrizio Mattesini,Randall Wright

We develop a model where: (i) banks take deposits and make investments; (ii) their liabilities facilitate third-party transactions. Other models have (i) or (ii), not both, although we argue they are intimately connected: we show that they both emerge from limited commitment. We describe an environment, characterize desirable allocations, and interpret the outcomes as banking arrangements. Banks are essential: without them, the set of feasible allocations is inferior. As a technical contribution, we characterize dynamically optimal credit allocations with frictions, show they involve backloading, and analyse how this interacts with banking. We also confront the theory with economic history. Copyright 2013, Oxford University Press.

Health and (Other) Asset Holdings

- Review of Economic Studies---2013---Julien Hugonnier,Florian Pelgrin

Despite clear evidence of correlations between financial and medical statuses and decisions, most models treat financial and health-related choices separately. This article bridges this gap by proposing a tractable dynamic framework for the joint determination of optimal consumption, portfolio holdings, health investment, and health insurance. We solve for the optimal rules in closed form and capitalize on this tractability to gain a better understanding of the conditions under which separation between financial and health-related decisions is sensible, and of the pathways through which wealth and health determine allocations, welfare and other variables of interest such as expected longevity or the value of health. Furthermore we show that the model is consistent with the observed patterns of individual allocations and provide realistic estimates of the parameters that confirm the relevance of all the main characteristics of the model. Copyright 2013, Oxford University Press.

Credit Constraints, Heterogeneous Firms, and International Trade

- Review of Economic Studies---2013---Kalina Manova

Financial market imperfections severely restrict international trade flows because exporters require external capital. This article identifies and quantifies the three mechanisms through which credit constraints affect trade: the selection of heterogeneous firms into domestic production, the selection of domestic manufacturers into exporting, and the level of firm exports. I incorporate financial frictions into a heterogeneous-firm model and apply it to aggregate trade data for a large panel of countries. I establish causality by exploiting the variation in financial development across countries and the variation in financial vulnerability across sectors. About 20%--25% of the impact of credit constraints on trade is driven by reductions in total output. Of the additional, trade-specific effect, one-third reflects limited firm entry into exporting, while two-thirds are due to contractions in exporters' sales. Financially developed economies export more in financially vulnerable sectors because they enter more markets, ship more products to each destination, and sell more of each product. These results have important policy implications for less developed nations that rely on exports for economic growth but suffer from weak financial institutions. Copyright 2013, Oxford University Press.

Consumption-Based Asset Pricing with Higher Cumulants

- Review of Economic Studies---2013---Ian Martin

I extend the Epstein--Zin-lognormal consumption-based asset-pricing model to allow for general i.i.d. consumption growth. Information about the higher moments--equivalently, cumulants--of consumption growth is encoded in the cumulant-generating function. I use the framework to analyse economies with rare disasters, and argue that the importance of such disasters is a double-edged sword: parameters that govern the frequency and sizes of rare disasters are critically important for asset pricing, but extremely hard to calibrate. I show how to sidestep this issue by using observable asset prices to make inferences without having to estimate higher moments of the underlying consumption process. Extensions of the model allow consumption to diverge from dividends, and for noni.i.d. consumption growth. Copyright 2013, Oxford University Press.

The Three Horsemen of Riches: Plague, War, and Urbanization in Early Modern Europe

- Review of Economic Studies---2013---Hans-Joachim Voth

How did Europe escape the "Iron Law of Wages?" We construct a simple Malthusian model with two sectors and multiple steady states, and use it to explain why European per capita incomes and urbanization rates increased during the period 1350--1700. Productivity growth can only explain a small fraction of the rise in output per capita. Population dynamics--changes of the birth and death schedules--were far more important determinants of steady states. We show how a major shock to population can trigger a transition to a new steady state with higher per-capita income. The Black Death was such a shock, raising wages substantially. Because of Engel's Law, demand for urban products increased, and urban centers grew in size. European cities were unhealthy, and rising urbanization pushed up aggregate death rates. This effect was reinforced by diseases spread through war, financed by higher tax revenues. In addition, rising trade also spread diseases. In this way higher wages themselves reduced population pressure. We show in a calibration exercise that our model can account for the sustained rise in European urbanization as well as permanently higher per capita incomes in 1700, without technological change. Wars contributed importantly to the "Rise of Europe", even if they had negative short-run effects. We thus trace Europe's precocious rise to economic riches to interactions of the plague shock with the belligerent political environment and the nature of cities. Copyright 2013, Oxford University Press.

Optimal Contracts with Shirking

- Review of Economic Studies---2013---John Y. Zhu

I explicitly derive the optimal dynamic incentive contract in a standard continuous-time agency setting where the agent has a shirking action. My solution generates two dynamic contracts new to the literature. Both contracts include phases when the agent frequently shirks. In one contract, the shirking phases are relaxation periods rewarding the agent for good performance. In the other, the shirking phases are suspension-type arrangements punishing the agent for poor performance. In addition, I also explore the relationships between optimal contracting and taxes, bargaining, and renegotiation. Copyright 2013, Oxford University Press.

Progressive Screening: Long-Term Contracting with a Privately Known Stochastic Process

- Review of Economic Studies---2013---Raphael Boleslavsky,Maher Said

We examine a model of long-term contracting in which the buyer is privately informed about the stochastic process by which her value for a good evolves. In addition, the realized values are also private information. We characterize a class of environments in which the profit-maximizing long-term contract offered by a monopolist takes an especially simple structure: we derive sufficient conditions on primitives under which the optimal contract consists of a menu of deterministic sequences of static contracts. Within each sequence, higher realized values lead to greater quantity provision; however, an increasing proportion of buyer types are excluded over time, eventually leading to inefficiently early termination of the relationship. Moreover, the menu choices differ by future generosity, with more costly (up front) plans guaranteeing greater quantity provision in the future. Thus, the seller screens process information in the initial period and then progressively screens across realized values so as to reduce the information rents paid in future periods. Copyright , Oxford University Press.

Informed Trading and Portfolio Returns

- Review of Economic Studies---2013---Alexei Boulatov,Terrence Hendershott,Dmitry Livdan

We solve a multi-period model of strategic trading with long-lived information in multiple assets with correlated innovations in fundamental values. Market makers in each asset can only condition their pricing functions on trading in each asset. Using daily non-public data from the New York Stock Exchange, we test the model's predictions on the conditional and unconditional lead--lag relations of institutional order flow and returns within portfolios. We find support for the model prediction of positive autocorrelations in portfolio returns as well as the predictions for how informed order flow positively predicts future returns and future informed order flow. We show that these relations strengthen for portfolios formed from assets within the same industry, which likely have higher correlation of fundamental values. Furthermore, we discuss issues that arise when testing implications of strategic models with imperfect proxies for the underlying strategic behaviour. Copyright , Oxford University Press.

Assigning Resources to Budget-Constrained Agents

- Review of Economic Studies---2013---Yeon-Koo Che,Ian Gale,Jinwoo Kim

This article studies different methods of assigning a good to budget-constrained agents. Schemes that assign the good randomly and allow resale may outperform the competitive market in terms of Utilitarian efficiency. The socially optimal mechanism involves random assignment at a discount--an in-kind subsidy--and a cash incentive to discourage low-valuation individuals from claiming the good. Copyright , Oxford University Press.

An Elementary Theory of Global Supply Chains

- Review of Economic Studies---2013---Arnaud Costinot,Jonathan Vogel,Su Wang

This article develops an elementary theory of global supply chains. We consider a world economy with an arbitrary number of countries, one factor of production, a continuum of intermediate goods and one final good. Production of the final good is sequential and subject to mistakes. In the unique free trade equilibrium, countries with lower probabilities of making mistakes at all stages specialize in later stages of production. Using this simple theoretical framework, we offer a first look at how vertical specialization shapes the interdependence of nations. Copyright , Oxford University Press.

The Effect of Immigration along the Distribution of Wages

- Review of Economic Studies---2013---Christian Dustmann,Tommaso Frattini,Ian Preston

This paper analyses the effect immigration has on the wages of native workers. Unlike most previous work, we estimate wage effects along the distribution of native wages. We derive a flexible empirical strategy that does not rely on pre-allocating immigrants to particular skill groups. In our empirical analysis, we demonstrate that immigrants downgrade considerably upon arrival. As for the effects on native wages, we find a pattern of effects whereby immigration depresses wages below the 20th percentile of the wage distribution but leads to slight wage increases in the upper part of the wage distribution. This pattern mirrors the evidence on the location of immigrants in the wage distribution. We suggest that possible explanations for the overall slightly positive effect on native wages, besides standard immigration surplus arguments, could involve deviations of immigrant remuneration from contribution to production either because of initial mismatch or immigrant downgrading. Copyright , Oxford University Press.

A Structural Approach to Identifying the Sources of Local Currency Price Stability

- Review of Economic Studies---2013---Pinelopi Goldberg,Rebecca Hellerstein

The inertia of the local currency prices of traded goods in the face of exchange rate changes is a well-documented phenomenon in International Economics. This paper develops a structural model to identify the sources of this local currency price stability and applies it to micro-data from the beer market. The empirical procedure exploits manufacturers' and retailers' first-order conditions in conjunction with detailed information on the frequency of price adjustments following exchange rate changes to quantify the relative importance of local non-traded cost components, markup adjustment by manufacturers and retailers, and nominal price rigidities in the incomplete transmission of such changes to prices. We find that, on average, approximately 60% of the incomplete exchange rate pass-through is due to local non-traded costs; 8% to markup adjustment; 30% to the existence of own brand price adjustment costs; and 1% to the indirect/strategic effect of such costs, though these results vary considerably across individual brands according to their market shares. Copyright , Oxford University Press.

Credit within the Firm

- Review of Economic Studies---2013---Luigi Guiso,Luigi Pistaferri,Fabiano Schivardi

We use variation in the degree of development of local credit markets and matched employer--employee data to assess the role of the firm as an internal credit market. We find that firms operating in less financially developed markets offer lower entry wages but faster wage growth than firms in more financially developed markets. This helps firms finance their operations by implicitly raising funds from workers. We control for local market fixed effects and only exploit time variation in the degree of local financial development induced by an exogenous liberalization, so that the effect we find is unlikely to reflect unobserved local factors that systematically affect wage--tenure profiles. We estimate that the amount of credit generated by implicit lending within the firm is economically important and can be as large as 30 percent of the bank lending. Consistent with credit market imperfections opening up trade opportunities within the firm, we find that the internal rate of return of implicit loans lies between the rate at which workers savings are remunerated in the market and the rate that firms pay on their loans from banks. Copyright , Oxford University Press.

Inventories, Markups, and Real Rigidities in Menu Cost Models

- Review of Economic Studies---2013---Oleksiy Kryvtsov,Virgiliu Midrigan

A growing consensus in New Keynesian macroeconomics is that nominal cost rigidities, rather than countercyclical markups, account for the bulk of the real effects of monetary policy shocks. We revisit these conclusions using theory and data on inventories. We study an economy with nominal rigidities in which goods are storable. Our theory predicts that if costs of production are sticky and markups do not vary much in response to, say, expansionary monetary policy, firms react by excessively accumulating inventories in anticipation of future cost increases. In contrast, if the data inventories are fairly constant over the cycle and in response to changes in monetary policy. We show that costs must increase and markups must decline sufficiently in times of a monetary expansion in order to reduce firm's incentive to hold inventories and thus bring the model's inventory predictions in line with the data. Versions of the model consistent with the dynamics of inventories in the data imply that countercyclical markups account for a sizable fraction of the response of real variables to monetary shocks. Copyright , Oxford University Press.

Aggregating Information by Voting: The Wisdom of the Experts versus the Wisdom of the Masses

- Review of Economic Studies---2013---Joseph McMurray

This article analyzes participation and information aggregation in a common-value election with continuous private signals. In equilibrium, some citizens ignore their private information and abstain from voting, in deference to those with higher-quality signals. Even as the number of highly informed peers grows large, however, citizens with only moderate expertise continue voting, so that voter participation remains at realistic levels (e.g. 50 to 60 percent, for simple examples). The precise level of voter turnout, along with the margin of victory, are determined by the distribution of expertise.

Improving a voter's information makes her more willing to vote, consistent with a growing body of empirical evidence, but makes her peers more willing to abstain, providing a new explanation for various empirical patterns of voting. Equilibrium participation is optimal, even though the marginal voter may have very little (e.g. below-average) expertise, and even though non-voters' information is not utilized. Copyright , Oxford University Press.

Quick Job Entry or Long-Term Human Capital Development? The Dynamic Effects of Alternative Training Schemes

- Review of Economic Studies---2013---Aderonke Osikominu

This article investigates how precisely short-term, job search-oriented training programs as opposed to long-term, human capital intensive training programs work. We evaluate and compare their effects on time until job entry, stability of employment, and earnings. Further, we examine the heterogeneity of treatment effects according to the timing of training during unemployment as well as across different subgroups of participants. We find that participating in short-term training reduces the remaining time in unemployment and moderately increases job stability. Long-term training programs initially prolong the remaining time in unemployment, but once the scheduled program end is reached participants exit to employment at a much faster rate than without training. In addition, they benefit from substantially more stable employment spells and higher earnings. Overall, long-term training programs are well effective in supporting the occupational advancement of very heterogeneous groups of participants, including those with generally weak labor market prospects. However, from a fiscal perspective only the low-cost short-term training schemes are cost efficient in the short run. Copyright , Oxford University Press.

Discrete Choice Non-Response

- Review of Economic Studies---2013---Esmeralda Ramalho,Richard Smith

Missing values are endemic in the data sets available to econometricians. This paper suggests a semiparametrically efficient likelihood-based approach to deal with general non-ignorable missing data problems for discrete choice models. Our concern is when the dependent variable and/or covariates are unobserved for some sampling units. A supplementary random sample of observations on all covariates may be available. The key insight of this paper is the recognition of non-response as a modification of choice-based (CB) samples. Semiparametrically efficient generalized method of moments (GMM) estimation appropriate for CB samples is then adapted for the non-response framework considered in this paper. Simulation results for various GMM estimators proposed here are very encouraging. Copyright , Oxford University Press.

Robust Predictions in Infinite-Horizon Games--an Unrefinable Folk Theorem

- Review of Economic Studies---2013---Jonathan Weinstein,Muhamet Yildiz

We show that in any game that is continuous at infinity, if a plan of action a i is played by a type t i in a Bayesian Nash equilibrium, then there are perturbations of t i for which a i is the only rationalizable plan and whose unique rationalizable belief regarding the play of the game is arbitrarily close to the equilibrium belief of t i . As an application to repeated games, we prove an unrefinable folk theorem: any individually rational and feasible payoff is the unique rationalizable payoff vector for some perturbed type profile. This is true even if perturbed types are restricted to believe that the repeated-game payoff structure and the discount factor are common knowledge. Copyright , Oxford University Press.

Cooperation with Network Monitoring

- Review of Economic Studies---2013---Alexander Wolitzky

This paper studies the maximum level of cooperation that can be sustained in perfect Bayesian equilibrium in repeated games with network monitoring, where players observe each other's actions either perfectly or not at all. The foundational result is that the maximum level of cooperation can be robustly sustained in grim trigger strategies. If players are equally well monitored, comparative statics on the maximum level of cooperation are highly tractable and depend on the monitoring technology only through a simple statistic, its effective contagiousness. Typically, cooperation in the provision of pure public goods is greater in larger groups, while cooperation in the provision of divisible public goods is greater in smaller groups, and making monitoring less uncertain in the second-order stochastic dominance sense increases cooperation. For fixed monitoring networks, a new notion of network centrality is developed, which determines which players cooperate more in a given network, as well as which networks support greater cooperation.

Intertemporal Distortions in the Second Best

- Review of Economic Studies---2012---Stefania Albanesi,Roc Armenter

This paper studies the long-run properties of intertemporal distortions in a broad class of second-best economies. Our unified framework encompasses and extends many well-known models, such as variants of the Ramsey taxation model with aggregate or idiosyncratic risk, and economies with incentive compatibility constraints due to limited commitment, political economy, self-enforcement or private information, or combinations of these. We identify a sufficient condition that rules out permanent intertemporal distortions: if there exists an allocation that satisfies all constraints and eventually converges to the limiting first-best allocation, then intertemporal distortions are temporary in the second best. This result uncovers a common optimality principle linking the intertemporal allocation of resources with the ability to front-load distortions for this broad class of environments. A series of applications illustrates the significance of these findings.

Discretionary Policy and Multiple Equilibria in LQ RE Models

- Review of Economic Studies---2012---Andrew Blake,Tatiana Kirsanova

We study stationary discretionary equilibria in dynamic linear-quadratic rational expectations models. Past papers have assumed that this is uniquely determined; we show that such models can have multiple equilibria in some situations. We demonstrate the existence of multiple discretionary equilibria using a number of examples of increasing complexity and discuss their potential to explain interesting economic phenomena. We investigate the general properties of discretionary equilibria and discuss the design implications for the numerical algorithms needed to find them.

Name Your Own Price at Priceline.com: Strategic Bidding and Lockout Periods

- Review of Economic Studies---2012---Chia-Hui Chen

A buyer suggests prices to N sellers in a time period and buys from the seller who accepts the bid first. The number of bidding rounds is determined by how frequently the buyer can make an offer. We show that with no limit on the frequency and without discounting, the price path is either kept flat initially with large jumps at the end or increasing steadily over time. Which class of path occurs in equilibrium depends on the buyer's trade-off between committing to a price ceiling versus finely screening the sellers' costs. With discounting, limiting the number of rounds mitigates the delay caused by the reluctance to raise bids in the first class of equilibrium and therefore can benefit the buyer. This result suggests why, in reality, bargaining parties often take measures to make their offers rigid and consequently force themselves to make fewer offers.

The Optimal Inflation Rate in New Keynesian Models: Should Central Banks Raise Their Inflation Targets in Light of the Zero Lower Bound?

- Review of Economic Studies---2012---Olivier Coibion,Yuriy Gorodnichenko,Johannes Wieland

We study the effects of positive steady-state inflation in New Keynesian models subject to the zero bound on interest rates. We derive the utility-based welfare loss function taking into account the effects of positive steady-state inflation and solve for the optimal level of inflation in the model. For plausible calibrations with costly but infrequent episodes at the zero lower bound, the optimal inflation rate is low, typically

Urban Growth and Transportation

- Review of Economic Studies---2012---Gilles Duranton,Matthew Turner

We estimate the effects of interstate highways on the growth of U.S. cities between 1983 and 2003. We find that a 10% increase in a city's initial stock of highways causes about a 1.5% increase in its employment over this 20 year period. To estimate a structural model of urban growth and transportation, we rely on an instrumental variables estimation that uses a 1947 plan of the interstate highway system, an 1898 map of railroads, and maps of the early explorations of the U.S. as instruments for 1983 highways. Copyright , Oxford University Press.

Charity as a Substitute for Reputation: Evidence from an Online Marketplace

- Review of Economic Studies---2012---Daniel W. Elfenbein,Raymond Fisman,Brian Mcmanus

Consumers respond positively to products tied to charity, particularly from sellers that are relatively new and hence have limited alternative means of assuring quality. We establish this result using data from a diverse group of eBay sellers who "experiment" with charity by varying the presence of a donation in a set of otherwise matched product listings. Most of charity's benefits accrue to sellers without extensive eBay histories. Consistent with charity serving as a quality signal, we find fewer customer complaints among charity-intensive sellers. Copyright , Oxford University Press.

Non-linear Capital Taxation Without Commitment

- Review of Economic Studies---2012---Emmanuel Farhi,Christopher Sleet,Iván Werning,Sevin Yeltekin

We study efficient non-linear taxation of labour and capital in a dynamic Mirrleesian model incorporating political economy constraints. Policies are chosen sequentially over time, without commitment. Our main result is that the marginal tax on capital income is progressive, in the sense that richer agents face higher marginal tax rates. Copyright , Oxford University Press.

Explaining and Forecasting Results of the Self-sufficiency Project

- Review of Economic Studies---2012---Christopher Ferrall

This paper studies the self-sufficiency project (SSP), a controlled randomized experiment concerning welfare, by estimating a model of endogenous skill accumulation, multidimensional job opportunities, and time-varying opportunity costs of labour market time. Methods for estimating dynamic programming models with unobserved heterogeneity are extended to account for unexpected policy interventions and endogenous sample selection and initial conditions. Parameters are identified and consistently estimated by imposing optimal responses to the exact form of the SSP earnings supplement and the experimental program, which induces exogenous variation between treatment groups and within groups as treatment progresses. The estimated model tracks primary outcomes well in and out of sample, except for underestimating trends in the sample of new welfare applicants. Predictions from counterfactual experiments run counter to non-structural results reported elsewhere, and they suggest that details of the SSP's design are critical for interpretation of results. The separate SSP Plus treatment may have longer lasting and more generalized impacts than the in-sample impacts suggest. Copyright , Oxford University Press.

Climate Contracts: A Game of Emissions, Investments, Negotiations, and Renegotiations

- Review of Economic Studies---2012---Bard Harstad

The paper presents a dynamic game where players contribute to a public bad, invest in technologies, and write incomplete contracts. Despite the n + 1 stocks in the model, the analysis is tractable and the symmetric Markov perfect equilibrium unique. If only the contribution levels are contractible, then investments are suboptimally small if the contract is short term or close to its expiration date. To encourage investments, the optimal contract is more ambitious if it is short term, and it is tougher to satisfy close to its expiration date and for players with small investment costs. If renegotiation is possible, such an incomplete contract implements the first-best. The framework helps to analyse emissions, investments, and international environmental agreements, and the results have important lessons for how to design a climate treaty. Copyright , Oxford University Press.

Housing Liquidity, Mobility, and the Labour Market

- Review of Economic Studies---2012---Allen Head,Huw Lloyd-Ellis

We study the interactions among geographical mobility, unemployment, and home-ownership in an economy with heterogeneous locations, endogenous construction, and search frictions in the markets for both labour and housing. The decision of home-owners to accept job offers from other cities depends on how quickly they can sell their houses (i.e. the houses' liquidity), which in turn depends on local labour market conditions. Consequently, home-owners accept job offers from other cities at a lower rate than do renters, generating a link between home-ownership and unemployment both at the city level and in the aggregate. When calibrated to match aggregate U.S. statistics on mobility, housing, and labour flows, the model predicts that the effect of home-ownership on aggregate unemployment is small. When unemployment is high, however, changes in the rate of home-ownership can have economically significant effects. Copyright , Oxford University Press.

Social Decision Theory: Choosing within and between Groups

- Review of Economic Studies---2012---Fabio Maccheroni,Massimo Marinacci,Aldo Rustichini

We study the behavioural foundation of interdependent preferences, where the outcomes of others affect the welfare of the decision maker. These preferences are taken as given, not derived from more primitive ones. Our aim is to establish an axiomatic foundation providing the link between observation of choices and a functional representation which is convenient, free of inconsistencies and can provide the basis for measurement. The dependence among preferences may take place in two conceptually different ways, expressing two different views of the nature of interdependent preferences. The first is Festinger's view that the evaluation of peers' outcomes is useful to improve individual choices by learning from the comparison. The second is Veblen's view that interdependent preferences keep track of social status derived from a social value attributed to the goods one consumes. Corresponding to these two different views, we have two different formulations. In the first, the decision maker values his outcomes and those of others on the basis of his own utility. In the second, he ranks outcomes according to a social value function. We give different axiomatic foundations to these two different, but complementary, views of the nature of the interdependence. On the basis of this axiomatic foundation, we build a behavioural theory of comparative statics within subjects and across subjects. We characterize preferences according to the relative importance assigned to gains and losses in social domain, that is pride and envy. This parallels the standard analysis of private gains and losses (as well as that of regret and relief). We give an axiomatic foundation of interpersonal comparison of preferences, ordering individuals according to their sensitivity to social ranking. These characterizations provide the behavioural foundation for applied analysis of market and game equilibria with interdependent preferences. Copyright , Oxford University Press.

Beliefs and Private Monitoring

- Review of Economic Studies---2012---Christopher Phelan,Andrzej Skrzypacz

This paper develops new recursive, set based methods for studying repeated games with private monitoring. For any finite-state strategy profile, we find necessary and sufficient conditions for whether there exists a distribution over initial states such that the strategy, together with this distribution, form a correlated sequential equilibrium (CSE). Also, for any given correlation device for determining initial states (including degenerate cases where players' initial states are common knowledge), we provide necessary and sufficient conditions for the correlation device and strategy to be a CSE, or in the case of a degenerate correlation device, for the strategy to be a sequential equilibrium. We also consider several applications. In these, we show that the methods are computationally feasible, and how to construct and verify equilibria in a secret price-setting game. Copyright , Oxford University Press.

Taxes and Time Allocation: Evidence from Single Women and Men

- Review of Economic Studies---2012---Alexander Gelber,Joshua W. Mitchell

The classic model of Becker (1965, "A Theory of the Allocation of Time", Economic Journal, 125, 493--517) suggests that labour supply decisions should be analysed within the broader context of time allocation and market good consumption choices, but most empirical work on policy has focused exclusively on measuring impacts on market work. This paper examines how income taxes affect time allocation during the entire day and how these time allocation decisions interact with expenditure patterns. Using the Panel Study of Income Dynamics from 1975 to 2004, we analyse the response of single women's housework, labour supply, and other time to variation in tax and transfer schedules across income levels, number of children, states, and time. We find that when the economic reward to participating in the labour force increases, market work increases and housework decreases, with the decrease in housework accounting for approximately two-thirds of the increase in market work. Analysis of repeated cross sections of time diary data from 1975 to 2004 shows that "home production" decreases substantially when market hours of work increase in response to policy changes. Data on expenditures show some evidence that expenditures on market goods likely to substitute for housework increase in response to a greater incentive to join the labour force. The baseline estimates imply that the elasticity of substitution between consumption of home and market goods is 2.61. The results are consistent with the Becker model. Meanwhile, single men show little response to changes in tax policy, and we are able to rule out an elasticity of substitution between home and market goods for this group of more than 1.66. Copyright , Oxford University Press.

Intertemporal Labour Supply with Search Frictions

- Review of Economic Studies---2012---Claudio Michelacci,Josep Pijoan-Mas

Starting in the 1970's, wage inequality and the number of hours worked by employed U.S. prime-age male workers have both increased. We argue that these two facts are related. We use a labour market model with on-the-job search where by working longer hours individuals acquire greater skills. Since job candidates are ranked by productivity, greater skills not only increase worker's productivity in the current job but also help the worker to obtain better jobs. When job offers become more dispersed, wage inequality increases and workers work longer hours to obtain better jobs. As a result, average hours per worker in the economy increase. This mechanism accounts for around two-thirds of the increase in hours observed in data. Part of the increase is inefficient since workers obtain better jobs at the expense of other workers competing for the same jobs. Copyright , Oxford University Press.

Optimal Bandwidth Choice for the Regression Discontinuity Estimator

- Review of Economic Studies---2012---Guido Imbens,Karthik Kalyanaraman

We investigate the choice of the bandwidth for the regression discontinuity estimator. We focus on estimation by local linear regression, which was shown to have attractive properties (Porter, J. 2003, "Estimation in the Regression Discontinuity Model" (unpublished, Department of Economics, University of Wisconsin, Madison)). We derive the asymptotically optimal bandwidth under squared error loss. This optimal bandwidth depends on unknown functionals of the distribution of the data and we propose simple and consistent estimators for these functionals to obtain a fully data-driven bandwidth algorithm. We show that this bandwidth estimator is optimal according to the criterion of Li (1987, "Asymptotic Optimality for C p , C L , Cross-validation and Generalized Cross-validation: Discrete Index Set", Annals of Statistics, 15, 958--975), although it is not unique in the sense that alternative consistent estimators for the unknown functionals would lead to bandwidth estimators with the same optimality properties. We illustrate the proposed bandwidth, and the sensitivity to the choices made in our algorithm, by applying the methods to a data set previously analysed by Lee (2008, "Randomized Experiments from Non-random Selection in U.S. House Elections", Journal of Econometrics, 142, 675--697) as well as by conducting a small simulation study. Copyright , Oxford University Press.

Information Projection: Model and Applications

- Review of Economic Studies---2012---Kristóf Madarász

People exaggerate the extent to which their information is shared with others. This paper introduces the concept of such information projection and provides a simple but widely applicable model. The key application describes a novel agency conflict in a frictionless learning environment. When monitoring with ex post information, biased evaluators exaggerate how much experts could have known ex ante and underestimate experts on average. Experts, to defend their reputations, are too eager to base predictions on ex ante information that substitutes for the information jurors independently learn ex post and too reluctant to base predictions on ex ante information that complements the information jurors independently learn ex post. Instruments that mitigate Bayesian agency conflicts are either ineffective or directly backfire. Applications to defensive medicine are discussed. Copyright , Oxford University Press.

Identifying Distributional Characteristics in Random Coefficients Panel Data Models

- Review of Economic Studies---2012---Manuel Arellano,Stéphane Bonhomme

We study the identification of panel models with linear individual-specific coefficients when T is fixed. We show identification of the variance of the effects under conditional uncorrelatedness. Identification requires restricted dependence of errors, reflecting a trade-off between heterogeneity and error dynamics. We show identification of the probability distribution of individual effects when errors follow an Autoregressive Moving Average process under conditional independence. We discuss Generalized Method of Moments estimation of moments of effects and errors and construct non-parametric estimators of their densities. As an application, we estimate the effect that a mother smoking during pregnancy has on her child's birth weight. Copyright , Oxford University Press.

Gender Interactions within Hierarchies: Evidence from the Political Arena

- Review of Economic Studies---2012---Stefano Gagliarducci,M. Daniele Paserman

This paper studies gender interactions within hierarchical organizations using a large data set on the duration of Italian municipal governments elected between 1993 and 2003. A municipal government can be viewed as a hierarchy, whose stability over time depends on the degree of cooperation between and within ranks. We find that in municipalities headed by female mayors, the probability of early termination of the legislature is higher. This result persists and becomes stronger when we control for municipality fixed effects as well as for non-random sorting of women into municipalities using regression discontinuity in gender-mixed electoral races decided by a narrow margin. The likelihood that a female mayor survives until the end of her term is lowest when the council is entirely male and in regions with less favourable attitudes towards working women. This evidence is suggestive that group dynamics are an important factor in driving the gender difference. Other interpretations receive less support in the data. Our results may provide an alternative explanation for the underrepresentation of women in leadership positions. Copyright , Oxford University Press.

Inverse Probability Tilting for Moment Condition Models with Missing Data

- Review of Economic Studies---2012---Bryan Graham,Cristine Pinto,Daniel Egel

We propose a new inverse probability weighting (IPW) estimator for moment condition models with missing data. Our estimator is easy to implement and compares favourably with existing IPW estimators, including augmented IPW estimators, in terms of efficiency, robustness, and higher-order bias. We illustrate our method with a study of the relationship between early Black--White differences in cognitive achievement and subsequent differences in adult earnings. In our data set, the early childhood achievement measure, the main regressor of interest, is missing for many units. Copyright , Oxford University Press.

Inefficiencies from Metropolitan Political and Fiscal Decentralization: Failures of Tiebout Competition

- Review of Economic Studies---2012---Stephen M. Calabrese,Dennis Epple,Richard Romano

We examine the welfare effects of provision of local public goods in an empirically relevant setting using a multi-community model with mobile and heterogeneous households and with flexible housing supplies. We characterize the first-best allocation and show efficiency can be implemented with decentralization using head taxes. We calibrate the model and compare welfare in property-tax equilibria, both decentralized and centralized, to the efficient allocation. Inefficiencies with decentralization and property taxation are large, dissipating most if not all the potential welfare gains that efficient decentralization could achieve. In property-tax equilibrium, centralization is frequently more efficient! An externality in community choice underlies the failure to achieve efficiency with decentralization and property taxes: poorer households crowd richer communities and free ride by consuming relatively little housing thereby avoiding taxes. Copyright , Oxford University Press.

Taxation and Household Labour Supply

- Review of Economic Studies---2012---Nezih Guner,Remzi Kaygusuz,Gustavo Ventura

We evaluate reforms to the U.S. tax system in a life cycle set-up with heterogeneous married and single households and with an operative extensive margin in labour supply. We restrict our model with observations on gender and skill premia, labour-force participation of married females across skill groups, children, and the structure of marital sorting. We concentrate on two revenue-neutral tax reforms: a proportional income tax and a reform in which married individuals file taxes separately (separate filing). Our findings indicate that tax reforms are accompanied by large increases in labour supply that differ across demographic groups, with the bulk of the increase coming from married females. Under a proportional income tax reform, married females account for more than 50% of the changes in hours across steady states, while under separate filing reform, married females account for all the change in hours. Copyright , Oxford University Press.

Incentives for Unaware Agents

- Review of Economic Studies---2012---Ernst-Ludwig von Thadden,Xiaojian Zhao

The paper introduces the problem of unawareness into principal--agent theory and discusses optimal incentive contracts when the agent may be unaware of her action space. Depending on the agent's default behaviour, it can be optimal for the principal to propose an incomplete contract (that keeps the agent unaware) or a complete contract. The key trade-off is that of enlarging the agent's choice set versus adding costly incentive constraints. If agents differ in their unawareness, optimal contracts show a self-reinforcing pattern: if there are few unaware agents in the economy optimal contracts promote awareness, if unawareness is wide spread optimal contracts shroud the contracting environment, thus keeping the agent unaware. Copyright , Oxford University Press.

The More We Know about the Fundamental, the Less We Agree on the Price

- Review of Economic Studies---2012---Péter Kondor

I allow trading horizon heterogeneity across groups in a standard differential information model of a financial market. This approach can explain the well-established phenomenon that, after a public announcement, trading volume increases, more private information is incorporated into prices and volatility increases. In such environments, public information has the important secondary role of helping agents learn about the information of other agents. Therefore, whenever the correlation between the private information of different groups is sufficiently low, a public announcement increases disagreement among short-horizon traders regarding the expected selling price even as it decreases disagreement about the fundamental value of the asset. Additional testable implications are also suggested. Copyright , Oxford University Press.

Information, Liquidity, Asset Prices, and Monetary Policy

- Review of Economic Studies---2012---Benjamin Lester,Andrew Postlewaite,Randall Wright

What determines which assets are used in transactions? We develop a framework where the extent to which assets are recognizable determines the extent to which they are acceptable in exchange--i.e. it determines their liquidity. Recognizability and liquidity are endogenized by allowing agents to invest in information. We analyse the effects of monetary policy. There can be multiple equilibria, with different transaction patterns, and these patterns are not invariant to policy. We show that small changes in information may generate large responses in asset prices, allocations, and welfare. We also discuss some issues in international economics, including exchange rates and dollarization. Copyright , Oxford University Press.

A Search-Theoretic Model of the Retail Market for Illicit Drugs

- Review of Economic Studies---2012---Manolis Galenianos,Rosalie Liccardo Pacula,Nicola Persico

A search-theoretic model of the retail market for illegal drugs is developed. Trade occurs in bilateral, potentially long-lived matches between sellers and buyers. Buyers incur search costs when experimenting with a new seller. Moral hazard is present because buyers learn purity only after a trade is made. This model is consistent with some new stylized facts about the drugs market, and it is informative for policy design. The effectiveness of different enforcement strategies is evaluated, including some novel ones that leverage the moral hazard present in the market. Copyright , Oxford University Press.

Communication and Learning

- Review of Economic Studies---2012---Luca Anderlini,Dino Gerardi,Roger Lagunoff

We study strategic information transmission in an organization consisting of an infinite sequence of individual decision-makers. Each decision-maker chooses an action and receives an informative but imperfect signal of the once-and-for-all realization of an unobserved state. The state affects all individuals' preferences over present and future decisions. Decision-makers do not directly observe the realized signals or actions of their predecessors. Instead, they must rely on cheap-talk messages in order to accumulate information about the state. Each decision-maker is therefore both a receiver of information with respect to his decision and a sender with respect to all future decisions. We show that if preferences are not perfectly aligned, "full learning" equilibria--ones in which the individuals' posterior beliefs eventually place full weight on the true state--do not exist. This is so both in the case of private communication, in which each individual only hears the message of his immediate predecessor, and in the case of public communication, in which a decision-maker hears the message of all his predecessors. Surprisingly, in the latter case full learning may be impossible even in the limit as all members of the organization become perfectly patient. We also consider the case where all individuals have access to a mediator who can work across time periods arbitrarily far apart. In this case, full learning equilibria exist. Copyright 2012, Oxford University Press.

Reputation in Long-Run Relationships

- Review of Economic Studies---2012---Alp Atakan,Mehmet Ekmekci

We model a long-run relationship as an infinitely repeated game played by two equally patient agents. In each period, the agents play an extensive-form stage game of perfect information with either locally non-conflicting interests or strictly conflicting interests. There is incomplete information about the type of Player 1, while Player 2's type is commonly known. We show that a sufficiently patient Player 1 can leverage Player 2's uncertainty about his type to secure his highest pay-off, compatible with Player 2's individual rationality, in any perfect Bayesian equilibrium of the repeated game. Copyright 2012, Oxford University Press.

Employment, Hours of Work and the Optimal Taxation of Low-Income Families

- Review of Economic Studies---2012---Richard Blundell,Andrew Shephard

The optimal design of low-income support is examined using a structural labour supply model. The approach incorporates unobserved heterogeneity, fixed costs of work, childcare costs and the detailed non-convexities of the tax and transfer system. The analysis considers purely Pareto improving reforms and also optimal design under social welfare functions with different degrees of inequality aversion. We explore the gains from tagging and also examine the case for the use of hours-contingent payments. Using the tax schedule for lone parents in the U.K. as our policy environment, the results point to a reformed non-linear tax schedule with tax credits only optimal for low earners. The results also suggest a welfare improving role for tagging according to child age and for hours-contingent payments, although the case for the latter is mitigated when hours cannot be monitored or recorded accurately by the tax authorities. Copyright 2012, Oxford University Press.

A New Test of Borrowing Constraints for Education

- Review of Economic Studies---2012---Meta Brown,John Scholz,Ananth Seshadri

We discuss a simple model in which parents and children make investments in the children's education and investments for other purposes and parents can transfer cash to their children. We show that for an identifiable set of parent--child pairs, parents will rationally underinvest in their child's education. For these parent--child pairs, additional financial aid will increase educational attainment. The model highlights an important feature of higher education finance, the "expected family contribution" (EFC) that is based on income, assets, and other factors. The EFC is neither legally guaranteed nor universally offered: our model identifies the set of families that are disproportionately likely to not provide their full EFC. Using a common proxy for financial aid, we show, in data from the Health and Retirement Study, that financial aid increases the educational attainment of children whose families are more likely than others to underinvest in education. Financial aid has no effect on the educational attainment of children in other families. The theory and empirical evidence identifies a set of children who face quantitatively important borrowing constraints for higher education. Copyright 2012, Oxford University Press.

Dynamic Trading and Asset Prices: Keynes vs. Hayek

- Review of Economic Studies---2012---Giovanni Cespa,Xavier Vives

We investigate the dynamics of prices, information, and expectations in a competitive, noisy, dynamic asset pricing equilibrium model with long-term investors. We argue that the fact that prices can score worse or better than consensus opinion in predicting the fundamentals is a product of endogenous short-term speculation. For a given positive level of residual pay-off uncertainty, if liquidity trades display low persistence, rational investors act like market makers and accommodate the order flow and prices are farther away from fundamentals compared to consensus. This defines a "Keynesian" region; the complementary region is "Hayekian" in that rational investors chase the trend and prices are systematically closer to fundamentals than average expectations. The standard case of no residual uncertainty and liquidity trading following a random walk is on the frontier of the two regions and identifies the set of deep parameters for which rational investors abide by Keynes' dictum of concentrating on an asset "long-term prospects and those only". The analysis also explains momentum and reversal in stock returns and how accommodation and trend-chasing strategies differ from these phenomena. Copyright 2012, Oxford University Press.

What Goods Do Countries Trade? A Quantitative Exploration of Ricardo's Ideas

- Review of Economic Studies---2012---Arnaud Costinot,Dave Donaldson,Ivana Komunjer

The Ricardian model predicts that countries should produce and export relatively more in industries in which they are relatively more productive. Though one of the most celebrated insights in the theory of international trade, this prediction has received little attention in the empirical literature since the mid-1960s. The main reason behind this lack of popularity is the absence of clear theoretical foundations to guide the empirical analysis. Building on the seminal work of Eaton and Kortum ("Technology, Geography, and Trade", Econometrica, 70, 1741--1779 2002), we offer such foundations and use them to quantify the importance of Ricardian comparative advantage. In the process, we also provide a theoretically consistent alternative to Balassa's (1965, "An Empirical Demonstration of Classical Comparative Cost Theory", Review of Economics and Statistics, 45, 231--238) well-known index of "revealed comparative advantage". Copyright 2012, Oxford University Press.

Quality Sorting and Trade: Firm-level Evidence for French Wine

- Review of Economic Studies---2012---Matthieu Crozet,Keith Head,Thierry Mayer

Empirical investigation of the quality interpretation of the Melitz (2003) model of firm heterogeneity and trade has been limited by the lack of direct data on quality. This paper matches firm-level export data with expert assessments of the quality of champagne producers to estimate the key parameters of that model. Quality monotonically increases firm-level prices, the probability of market entry, and export values. The estimated model--which calibrates the relative importance of firm-level quality and idiosyncratic demand--accurately predicts the average quality exported to each country. Simulations show that the data reject the polar alternatives where outcomes are based entirely on either quality or randomness. Copyright 2012, Oxford University Press.

The Intergenerational Transmission of Risk and Trust Attitudes

- Review of Economic Studies---2012---Thomas Dohmen,Armin Falk,David Huffman,Uwe Sunde

Recent theories endogenize the attitude endowments of individuals, assuming that they are shaped by the attitudes of parents and other role models. This paper tests empirically for the relevance of three aspects of the attitude transmission process highlighted in this theoretical literature: (1) transmission of attitudes from parents to children; (2) an impact of prevailing attitudes in the local environment on child attitudes; and (3) positive assortative mating of parents, which enhances the ability of a parent to pass on his or her attitudes to the child. We focus on two fundamentally important attitudes, willingness to take risks and willingness to trust others. We find empirical support for all three aspects, providing an empirical underpinning for the literature. An investigation of underlying mechanisms shows that socialization is important in the transmission process. Various parental characteristics and aspects of family structure are found to strengthen the socialization process, with implications for modeling the socialization production function and for policies focused on affecting children's non-cognitive skills. The paper also provides evidence that the transmission of risk and trust attitudes affects a wide variety of child outcomes, implying a potentially large total effect on children's economic situation. Copyright 2012, Oxford University Press.

Bubbly Liquidity

- Review of Economic Studies---2012---Emmanuel Farhi,Jean Tirole

This paper analyses the possibility and the consequences of rational bubbles in a dynamic economy where financially constrained firms demand and supply liquidity. Bubbles are more likely to emerge, the scarcer the supply of outside liquidity and the more limited the pledgeability of corporate income; they crowd investment in (out) when liquidity is abundant (scarce). We analyse extensions with firm heterogeneity and stochastic bubbles. Copyright 2012, Oxford University Press.

The War of Information

- Review of Economic Studies---2012---Faruk Gul,Wolfgang Pesendorfer

We analyse political contests (campaigns) between two parties with opposing interests. Parties provide costly information to voters who choose a policy. The information flow is continuous and stops when both parties quit. Parties' actions are strategic substitutes: increasing one party's cost makes that party provide more and its opponent provide less information. For voters, parties' actions are complements and hence raising the advantaged party's cost may be beneficial. Asymmetric information adds a signalling component resulting in a belief threshold at which the informed party's decision to continue campaigning offsets other unfavourable information. Copyright 2012, Oxford University Press.

A Model of Capital and Crises

- Review of Economic Studies---2012---Zhigu He,Arvind Krishnamurthy

We develop a model in which the capital of the intermediary sector plays a critical role in determining asset prices. The model is cast within a dynamic general equilibrium economy, and the role for intermediation is derived endogenously based on optimal contracting considerations. Low intermediary capital reduces the risk-bearing capacity of the marginal investor. We show how this force helps to explain patterns during financial crises. The model replicates the observed rise during crises in Sharpe ratios, conditional volatility, correlation in price movements of assets held by the intermediary sector, and fall in riskless interest rates. Copyright 2012, Oxford University Press.

Robust Collusion with Private Information

- Review of Economic Studies---2012---David Miller

The game-theoretic literature on collusion has been hard pressed to explain why a cartel should engage in price wars, without resorting to either impatience, symmetry restrictions, inability to communicate, or failure to optimize. This paper introduces a new explanation that relies on none of these assumptions: if the cartel's member firms have private information about their costs, price wars can be optimal in the face of complexity. Specifically, equilibria that are robust to pay-off irrelevant disruptions of the information environment generically cannot attain or approximate efficiency. An optimal robust equilibrium must allocate market shares inefficiently and may call for price wars under certain conditions. For a two-firm cartel, cost interdependence is a sufficient condition for price wars to arise in an optimal robust equilibrium. That optimal equilibria are inefficient generically applies not only to collusion games but also to the entire separable pay-off environment--a class that includes most typical economic models. Copyright 2012, Oxford University Press.

Holdouts in Sovereign Debt Restructuring: A Theory of Negotiation in a Weak Contractual Environment

- Review of Economic Studies---2012---Rohan Pitchford,Mark Wright

Why is it difficult to restructure sovereign debt in a timely manner? In this paper, we present a theory of the sovereign debt-restructuring process in which delay arises as individual creditors hold up a settlement in order to extract greater payments from the sovereign. We then use the theory to analyse recent policy proposals aimed at ensuring equal repayment of creditor claims. Strikingly, we show that such collective action policies may increase delay by encouraging free riding on negotiation costs, even while preventing hold-up and reducing total negotiation costs. A calibrated version of the model can account for observed delays and finds that free riding is quantitatively relevant: whereas in simple low-cost debt-restructuring operations, collective mechanisms will reduce delay by more than 60%, in high-cost complicated restructurings, the adoption of such mechanisms results in a doubling of delay. Copyright 2012, Oxford University Press.

Peer Effects in Science: Evidence from the Dismissal of Scientists in Nazi Germany

- Review of Economic Studies---2012---Fabian Waldinger

This paper analyses peer effects among university scientists. Specifically, it investigates whether the quality and the number of peers affect the productivity of researchers in physics, chemistry, and mathematics. The usual endogeneity problems related to estimating peer effects are addressed by using the dismissal of scientists by the Nazi government in 1933 as a source of exogenous variation in the peer group of scientists staying in Germany. To investigate localized peer effects, I construct a new panel data set covering the universe of scientists at the German universities from 1925 to 1938 from historical sources. I find no evidence for peer effects at the local level. Even very high-quality scientists do not affect the productivity of their local peers. Copyright 2012, Oxford University Press.

Trade, Firms, and Wages: Theory and Evidence

- Review of Economic Studies---2012---Mary Amiti,Donald Davis

How does trade liberalization affect wages? This is the first paper to consider in theory and data how the impact of final and intermediate input tariff cuts on workers' wages varies with the global engagement of their firm. Our model predicts that a fall in output tariffs lowers wages at import-competing firms but boosts wages at exporting firms. Similarly, a fall in input tariffs raises wages at import-using firms relative to those at firms that only source inputs locally. Using highly detailed Indonesian manufacturing census data for the period 1991--2000, we find considerable support for the model's predictions. Copyright 2012, Oxford University Press.

Education Choices in Mexico: Using a Structural Model and a Randomized Experiment to Evaluate PROGRESA

- Review of Economic Studies---2012---Orazio Attanasio,Costas Meghir,Ana Santiago

In this paper, we use an economic model to analyse data from a major randomized social experiment, namely PROGRESA in Mexico, and to evaluate its impact on school participation. We show the usefulness of using experimental data to estimate a structural economic model as well as the importance of a structural model in interpreting experimental results. The availability of the experiment also allows us to estimate the program's general equilibrium effects, which we then incorporate into our simulations. Our main findings are (i) the program's grant has a much stronger impact on school enrolment than an equivalent reduction in child wages; (ii) the program has a positive effect on the enrollment of children, especially after primary school; this result is well replicated by the parsimonious structural model; (iii) there are sizeable effects of the program on child wages, which, however, reduce the effectiveness of the program only marginally; and (iv) a revenue neutral change in the program that would increase the grant for secondary school children while eliminating for the primary school children would have a substantially larger effect on enrollment of the latter, while having minor effects on the former. Copyright 2012, Oxford University Press.

Shifting the Blame: On Delegation and Responsibility

- Review of Economic Studies---2012---Björn Bartling,Urs Fischbacher

To fully understand the motives for delegating a decision right, it is important to study responsibility attributions for outcomes of delegated decisions. We conducted laboratory experiments in which subjects could either choose a fair allocation or an unfair allocation or delegate the choice, and we used a punishment option to elicit responsibility attributions. Our results show that, first, responsibility attribution can be effectively shifted and, second, this can constitute a strong motive for the delegation of a decision right. Moreover, we propose a simple measure of responsibility and show that this measure outperforms measures based on inequity aversion or reciprocity in predicting punishment behaviour. Copyright 2012, Oxford University Press.

Understanding the City Size Wage Gap

- Review of Economic Studies---2012---Nathaniel Baum-Snow,Ronni Pavan

In this paper, we decompose city size wage premia into various components. We base these decompositions on an estimated on-the-job search model that incorporates latent ability, search frictions, firm-worker match quality, human capital accumulation, and endogenous migration between large, medium, and small cities. Counterfactual simulations of the model indicate that variation in returns to experience and differences in wage intercepts across location type are the most important mechanisms contributing to observed city size wage premia. Variation in returns to experience is more important for generating wage premia between large and small locations, while differences in wage intercepts are more important for generating wage premia between medium and small locations. Sorting on unobserved ability within education group and differences in labour market search frictions and distributions of firm-worker match quality contribute little to observed city size wage premia. These conclusions hold for separate samples of high school and college graduates. Copyright 2012, Oxford University Press.

Social Networks and the Dynamics of Labour Market Outcomes: Evidence from Refugees Resettled in the U.S

- Review of Economic Studies---2012---Lori Beaman

This paper examines the dynamic implications of social networks for the labour market outcomes of refugees resettled in the U.S. A theoretical model of job information transmission shows that the relationship between social network size and labour market outcomes is heterogeneous and depends on the vintage of network members: an increase in network size can negatively impact some cohorts in a network while benefiting others. To test this prediction, I use new data on political refugees resettled in the U.S. and exploit the fact that these refugees are distributed across cities by a resettlement agency, precluding individuals from sorting. The results indicate that an increase in the number of social network members resettled in the same year or one year prior to a new arrival leads to a deterioration of outcomes, while a greater number of tenured network members improves the probability of employment and raises the hourly wage. Copyright 2012, Oxford University Press.

Learning from a Piece of Pie

- Review of Economic Studies---2012---Pierre Chiappori,Olivier Donni,Ivana Komunjer

We investigate the empirical content of the Nash solution to two-player bargaining games. The bargaining environment is described by a set of variables that may affect agents' preferences over the agreement sharing, the status quo outcome, or both. The outcomes (i.e. whether an agreement is reached, and if so the individual shares) and the environment (including the size of the pie) are known, but neither are the agents' utilities nor their threat points. We consider both a deterministic version of the model in which the econometrician observes the shares as deterministic functions of the variables under consideration and a stochastic one in which because of latent disturbances only the joint distribution of incomes and outcomes is recorded. We show that in the most general framework any outcome can be rationalized as a Nash solution. However, even mild exclusion restrictions generate strong implications that can be used to test the Nash bargaining assumption. Stronger conditions further allow to recover the underlying structure of the bargaining, and in particular, the cardinal representation of individual preferences in the absence of uncertainty. An implication of this finding is that empirical works entailing Nash bargaining could (and should) use much more general and robust versions than they usually do. Copyright 2012, Oxford University Press.

Buying Shares and/or Votes for Corporate Control

- Review of Economic Studies---2012---Eddie Dekel,Asher Wolinsky

We explore how allowing votes to be traded separately of shares may affect the efficiency of corporate control contests. Our basic set-up and the nature of the questions continue the work of Grossman and Hart (1980) , Harris and Raviv (1988) , and Blair, Golbe and Gerard (1989). We consider three cases with respect to the allowable price offers (for shares and for votes when they can be traded separately): unrestricted price offers, quantity-restricted price offers, and price offers contingent on winning. Our main results are characterizations of the equilibria and of the circumstances under which vote buying is harmful. We show that allowing votes to be traded separately of shares results in inefficiencies in all the cases we study. Similarly allowing quantity-restricted offers is also harmful, but allowing conditional offers is not in itself detrimental to efficiency. The paper also makes a methodological contribution to the analysis of takeover games with atomless shareholders. It provides a way of dealing with asymmetric equilibria that must be dealt with for a complete analysis and it proves existence of an equilibrium. Copyright 2012, Oxford University Press.

Estimating a Dynamic Adverse-Selection Model: Labour-Force Experience and the Changing Gender Earnings Gap 1968--1997

- Review of Economic Studies---2012---George-Levi Gayle,Limor Golan

This paper addresses two questions: What accounts for the gender gap in labour-market outcomes? What are the driving forces behind the changes in the gender labour-market outcomes over the period 1968--1997? It formulates a dynamic general equilibrium model of labour supply, occupational sorting, and human-capital accumulation in which gender discrimination and an earnings gap arise endogenously. It uses this model to quantify the driving forces behind the decline in the gender earnings gap and the increase in female labour-force participation, the proportion of women working in professional occupations, and hours worked. It finds that labour-market experience is the most important factor explaining the gender earnings gap. In addition, statistical discrimination accounts for a large fraction of the observed gender earnings gap and its decline. It also finds that a large increase in aggregate productivity in professional occupations plays a major role in the increase in female labour-force participation, number of hours worked, and the proportion of females working in professional occupations. Although of less importance, demographic changes account for a substantial part of the increase in female labour-force participation and hours worked, whereas home production technology shocks do not. Copyright 2012, Oxford University Press.

Dynamic Contracts with Moral Hazard and Adverse Selection

- Review of Economic Studies---2012---Alex Gershkov,Motty Perry

We study a novel dynamic principal--agent setting with moral hazard and adverse selection (persistent as well as repeated). In the model, an agent whose skills are his private information faces a finite sequence of tasks, one after the other. Upon arrival of each task, the agent learns its level of difficulty and then chooses whether to accept or refuse each task in turn and how much effort to exert. Although his decision to accept or refuse a task is publicly known, the agent's effort level is his private information. We characterize optimal contracts and show that the per-period utility of the agent approaches his per-period utility when his skills are publicly known, as the discount factor and the time horizon increase. Copyright 2012, Oxford University Press.

Prices, Plant Size, and Product Quality

- Review of Economic Studies---2012---Maurice Kugler,Eric Verhoogen

Drawing on uncommonly rich and representative data from the Colombian manufacturing census, this paper documents new empirical relationships between input prices, output prices, and plant size and proposes a model of endogenous input and output quality choices by heterogeneous firms to explain the observed patterns. The key empirical facts are that, on average within narrowly defined sectors, (1) larger plants charge more for their outputs and (2) larger plants pay more for their material inputs. The latter fact generalizes the well-known positive correlation between plant size and wages. Similar correlations hold between prices and export status. We show that the empirical patterns are consistent with a parsimonious extension of the Melitz (2003 , "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," Econometrica, 71, 1695--1725) framework to include endogenous choice of input and output quality. Using a measure of the scope for quality differentiation from Sutton (1998 , Technology and Market Structure: Theory and History. Cambridge: MIT Press), we show that differences across sectors in the relationships between prices and plant size are consistent with our model. Available evidence suggests that differences in observable measures of market power do not provide a complete explanation for the empirical patterns. We interpret the results as supportive of the hypothesis that quality differences of both inputs and outputs play an important role in generating the price--plant size correlations. Copyright 2012, Oxford University Press.

Endogenous Information Acquisition in Coordination Games

- Review of Economic Studies---2012---David Myatt,Chris Wallace

In the context of a "beauty-contest" coordination game (in which pay-offs depend on the quadratic distance of actions from an unobserved state variable and from the average action), players choose how much costly attention to pay to various informative signals. Each signal has an underlying accuracy (how precisely it identifies the state) and a clarity (how easy it is to understand). The unique linear equilibrium has interesting properties: the signals which receive attention are the clearest available, even if they have poor underlying accuracy; the number of signals observed falls as the complementarity of players' actions rises; and, if actions are more complementary, the information endogenously acquired in equilibrium is more public in nature. The consequences of "rational-inattention" constraints on information transmission and processing are also studied. Copyright 2012, Oxford University Press.

Eliciting Welfare Preferences from Behavioural Data Sets

- Review of Economic Studies---2012---Ariel Rubinstein,Yuval Salant

An individual displays various preference orderings in different payoff-irrelevant circumstances. It is assumed that the variation in the observed preference orderings is the outcome of some cognitive process that distorts the underlying preferences of the individual. We introduce a framework for eliciting the individual's underlying preferences in such cases and then demonstrate it for two cognitive processes--satisficing and small assessment errors. Copyright 2012, Oxford University Press.

Education Quality and Development Accounting

- Review of Economic Studies---2012---Todd Schoellman

This paper measures the role of quality-adjusted years of schooling in accounting for cross-country output per worker differences. While data on years of schooling are readily available, data on education quality are not. I use the returns to schooling of foreign-educated immigrants in the U.S. to measure the education quality of their birth country. Immigrants from developed countries earn higher returns than do immigrants from developing countries. I show how to incorporate this measure of education quality into an otherwise standard development accounting exercise. The main result is that cross-country differences in education quality are roughly as important as cross-country differences in years of schooling in accounting for output per worker differences, raising the total contribution of education from 10% to 20% of output per worker differences. Copyright 2012, Oxford University Press.

How Q and Cash Flow Affect Investment without Frictions: An Analytic Explanation

- Review of Economic Studies---2011---Andrew B. Abel,Janice C. Eberly

We derive a closed-form solution for Tobin's Q in a stochastic dynamic framework. We show analytically that investment is positively related to Tobin's Q and cash flow, even in the absence of adjustment costs or financing frictions. Both Q and investment move in the same direction as expected revenue growth, so changes in expected revenue growth induce Q and investment to comove positively. Similarly, shocks to current cash flow, arising from shocks to the user cost of capital in our model, cause investment and cash flow per unit of capital to comove positively. Furthermore, we show that this alternative mechanism for the relationship among investment, Q, and cash flow delivers larger cash flow effects for smaller- and faster-growing firms, as observed in the data. Moreover, the empirically small sensitivity of investment to Tobin's Q does not imply implausibly large adjustment costs in our model (since there are no adjustment costs). Calibrating the model generates values of Q similar to those in the data; investment is more sensitive to cash flow than it is to Q, and both responses are of empirically plausible magnitudes. Copyright 2011, Oxford University Press.

Bayesian Learning in Social Networks

- Review of Economic Studies---2011---Daron Acemoglu,Munther A. Dahleh,Ilan Lobel,Asuman Ozdaglar

We study the (perfect Bayesian) equilibrium of a sequential learning model over a general social network. Each individual receives a signal about the underlying state of the world, observes the past actions of a stochastically generated neighbourhood of individuals, and chooses one of two possible actions. The stochastic process generating the neighbourhoods defines the network topology. We characterize pure strategy equilibria for arbitrary stochastic and deterministic social networks and characterize the conditions under which there will be asymptotic learning--convergence (in probability) to the right action as the social network becomes large. We show that when private beliefs are unbounded (meaning that the implied likelihood ratios are unbounded), there will be asymptotic learning as long as there is some minimal amount of "expansion in observations". We also characterize conditions under which there will be asymptotic learning when private beliefs are bounded. Copyright 2011, Oxford University Press.

Term Length and the Effort of Politicians

- Review of Economic Studies---2011---Ernesto Dal Bó,Martín Rossi

We evaluate the effects of a fundamental lever of constitutional design: the duration of public office terms. We present a simple model grounded in interviews with legislators and highlight three forces shaping incentives to exert legislative effort. We exploit two natural experiments in the Argentine Congress (where term lengths were assigned randomly) to ascertain which forces are empirically dominant. Results for separate measures as well as an aggregate index of legislative effort show that longer terms increase effort. Shorter terms appear to discourage effort not due to campaign distractions but due to an investment payback logic: when effort yields returns over multiple periods, longer terms yield a higher chance of capturing those returns. A broader implication is that job stability may promote effort despite making individuals less accountable. Copyright 2011, Oxford University Press.

Set Identification in Models with Multiple Equilibria

- Review of Economic Studies---2011---Alfred Galichon,Marc Henry

We propose a computationally feasible way of deriving the identified features of models with multiple equilibria in pure or mixed strategies. It is shown that in the case of Shapley regular normal form games, the identified set is characterized by the inclusion of the true data distribution within the core of a Choquet capacity, which is interpreted as the generalized likelihood of the model. In turn, this inclusion is characterized by a finite set of inequalities and efficient and easily implementable combinatorial methods are described to check them. In all normal form games, the identified set is characterized in terms of the value of a submodular or convex optimization program. Efficient algorithms are then given and compared to check inclusion of a parameter in this identified set. The latter are illustrated with family bargaining games and oligopoly entry games. Copyright 2011, Oxford University Press.

Initiating Bargaining

- Review of Economic Studies---2011---David Goldreich,Lukasz Pomorski

While there is an extensive literature on how economic agents bargain to divide an asset, little is known about the decision to initiate bargaining and how the initiation affects the outcome of bargaining. We address these questions in the context of high-stakes poker tournaments in which the last few players often negotiate the division of the remaining prize money rather than risk playing the tournament to the end. In 63% of the tournaments in our sample players enter into negotiations, and in 31%, they successfully reach an agreement. We find that the identity of the player who initiates bargaining affects whether a deal is completed but does not affect the terms of the eventual deal. The initiator tends to have a weaker than average position at the table, but the likelihood that a deal will be completed increases in the initiator's strength in the game and history of winning past tournaments. These findings indicate that initiating negotiations conveys information that is relevant to whether a deal will emerge. Nevertheless, initiating bargaining does not affect the initiator's pay-off in a completed deal. Lastly, we find strong evidence that bargaining tends to be initiated and is more likely to be successful when participants' stakes are about equal, consistent with the theoretical work of Cramton, Gibbons and Klemperer (1987, "Dissolving a Partnership Efficiently", Econometrica, 55, 615--632). Copyright 2011, Oxford University Press.

Portfolio Choices and Asset Prices: The Comparative Statics of Ambiguity Aversion

- Review of Economic Studies---2011---Christian Gollier

This paper investigates the comparative statics of "more ambiguity aversion" as defined by Klibanoff, Marinacci and Mukerji (2005 , "A Smooth Model of Decision Making under Ambiguity", Econometrica, 73 (6), 1849--1892). The analysis uses the static two-asset portfolio problem with one safe asset and one uncertain one. While it is intuitive that more ambiguity aversion would reduce demand for the uncertain asset, this is not necessarily the case. We derive sufficient conditions for a reduction in the demand for the uncertain asset and for an increase in the equity premium. An example that meets the sufficient conditions is when the set of plausible distributions for returns on the uncertain asset can be ranked according to their monotone likelihood ratio. It is also shown how ambiguity aversion distorts the price kernel in the alternative portfolio problem with complete markets for contingent claims. Copyright 2011, Oxford University Press.

Interregional Redistribution and Mobility in Federations: A Positive Approach

- Review of Economic Studies---2011---Anke Kessler,Nico A. Hansen,Christian Lessmann

The paper studies the effects and the determinants of interregional redistribution in a model of residential and political choice. We find that paradoxical consequences of interjurisdictional transfers arise if people are mobile: while self-sufficient regions are necessarily identical with respect to policies and average incomes in our model, interregional redistribution always leads to the divergence of regional policies and per capita incomes. Thus, interregional redistribution prevents interregional equality. At the same time, however, transfers may allow for more interpersonal equality among the inhabitants of each region. The voting population may therefore in a decision over the fiscal constitution deliberately implement such a transfer scheme to foster regional divergence. Empirical evidence from panel data from OECD countries and Canadian provinces is consistent with the theory. Copyright 2011, Oxford University Press.

Verifying Competitive Equilibria in Dynamic Economies

- Review of Economic Studies---2011---Felix Kubler

In this paper, I examine ϵ-equilibria of stationary dynamic economies with heterogeneous agents and possibly incomplete financial markets. I give a simple example to show that even for arbitrarily small ϵ > 0, allocation and prices can be far away from exact equilibrium allocations and prices. That is, errors in market clearing or individuals' optimality conditions do not provide enough information to assess the quality of an approximation. I derive a sufficient condition for an ϵ-equilibrium to be close to an exact equilibrium. If the economic fundamentals are semi-algebraic, one can verify computationally whether this condition holds. The condition can be interpreted economically as a robustness requirement on the set of ϵ-equilibria which form a neighbourhood of the computed approximation. I illustrate the main result and the computational method using an infinite horizon economy with overlapping generations and incomplete financial markets. Copyright 2011, Oxford University Press.

Information Acquisition and Reputation Dynamics

- Review of Economic Studies---2011---Qingmin Liu

We study dynamic incentives and behaviour in markets with costly discovery of past transactions. In our model, a sequence of short-lived customers interact over time with a single long-lived firm that privately knows its type (good or opportunistic). Customers must pay to observe the firm's past behaviour. We characterize the equilibrium structure that features accumulation, consumption, and restoration of reputation. The opportunistic firm deliberately builds its reputation up to a point where the maximum periods of information acquired by customers do not reveal past opportunistic behaviour and exploits the customers who most trust the firm.

Learning and Information Aggregation in an Exit Game

- Review of Economic Studies---2011---Pauli Murto,Juuso Välimäki

We analyse information aggregation in a stopping game with uncertain pay-offs that are correlated across players. Players learn from their own private experiences as well as by observing the actions of other players. We give a full characterization of the symmetric mixed strategy equilibrium, and show that information aggregates in randomly occurring exit waves. Observational learning induces the players to stay in the game longer. The equilibria display aggregate randomness even for large numbers of players.

Parental Job Loss and Children's School Performance

- Review of Economic Studies---2011---Mari Rege,Kjetil Telle,Mark Votruba

Using Norwegian register data, we estimate how children's school performance is affected by their parents' exposure to plant closure. Our estimates suggest that paternal job loss has a negative effect on children's school performance. In contrast, maternal job loss is associated with a non-significant increase in school performance. Importantly, the negative effect of paternal job loss appears largely unrelated to its effect on father's income, father's employment status, a shift in maternal time towards employment, marital dissolution, and residential relocation. A disparate effect of job loss across fathers and mothers is, however, consistent with recent empirical studies documenting that the mental distress experienced by displaced workers is generally more severe for men than women.

The Surprising Power of Age-Dependent Taxes

- Review of Economic Studies---2011---Matthew Weinzierl

This paper provides a new, empirically driven application of the dynamic Mirrleesian framework by studying a feasible and potentially powerful tax reform: age-dependent labour income taxation. I show analytically how age dependence improves policy on both the intratemporal and intertemporal margins. I use detailed numerical simulations, calibrated with data from the U.S. Panel Study of Income Dynamics, to generate robust policy implications: age dependence (1) lowers marginal taxes on average and especially on high-income young workers and (2) lowers average taxes on all young workers relative to older workers when private saving and borrowing are restricted. Finally, I calculate and characterize the welfare gains from age dependence. Despite its simplicity, age dependence generates a welfare gain equal to between $0 \cdot 6\%$ and $1 \cdot 5\%$ of aggregate annual consumption, and it captures more than 60% of the gain from reform to the dynamic optimal policy. The gains are due to substantial increases in both efficiency and equity. When age dependence is restricted to be Pareto improving, the welfare gain is nearly as large.

Media Bias and Influence: Evidence from Newspaper Endorsements

- Review of Economic Studies---2011---Chun-Fang Chiang,Brian Knight

This paper investigates the relationship between media bias and the influence of the media on voting in the context of newspaper endorsements. We first develop a simple econometric model in which voters choose candidates under uncertainty and rely on endorsements from better informed sources. Newspapers are potentially biased in favour of one of the candidates and voters thus rationally account for the credibility of any endorsements. Our primary empirical finding is that endorsements are influential in the sense that voters are more likely to support the recommended candidate after publication of the endorsement. The degree of this influence, however, depends upon the credibility of the endorsement. In this way, endorsements for the Democratic candidate from left-leaning newspapers are less influential than are endorsements from neutral or right-leaning newspapers and likewise for endorsements for the Republican. We also find that endorsements are more influential among moderate voters and those more likely to be exposed to the endorsement. In sum, these findings suggest that voters do rely on the media for information during campaigns but that the extent of this reliance depends upon the degree and direction of any bias. Copyright 2011, Oxford University Press.

Ambiguity and Rational Expectations Equilibria

- Review of Economic Studies---2011---Scott Condie,Jayant Ganguli

This paper demonstrates the existence and robustness of partially revealing rational expectations equilibria in general exchange economies when some traders have non-smooth ambiguity-averse preferences. This finding illustrates that models with non-smooth ambiguity aversion provide a relatively tractable framework through which partial information revelation may be studied in a general equilibrium setting without relying on particular distributional or von Neumann--Morgenstern utility assumptions or the presence of "noise." Copyright 2011, Oxford University Press.

Executive Control and Legislative Success

- Review of Economic Studies---2011---Daniel Diermeier,Razvan Vlaicu

The higher legislative success of parliamentary governments relative to presidential governments has been used to argue that legislative success is driven by parliamentary governments' superior agenda power or their control of legislative majorities. We show that this approach is at odds with some of the empirical regularities across and within political systems. We then propose a legislative bargaining model to elucidate this puzzle. In the model, the policies of a confidence-dependent parliamentary government enjoy more predictable support from governing coalition members because their short-term policy goals are less important than the government's survival. Coalition support is stronger when the government has more agenda power and is weaker with a larger ruling coalition. We explore the empirical implications of these findings and their consequences for the comparative study of legislative institutions. Copyright 2011, Oxford University Press.

Identifying Sorting--In Theory

- Review of Economic Studies---2011---Jan Eeckhout,Philipp Kircher

Assortative matching between workers and firms provides evidence of the complementarities or substitutes in production. The presence of complementarities is important for policies that aim to achieve the optimal allocation of resources, e.g. unemployment insurance. We argue that using wage data alone, it is virtually impossible to identify whether assortative matching is positive or negative. Even though we cannot identify the sign of the sorting, we can identify the strength, i.e. the magnitude of the cross-partial and the associated welfare loss. We first show that the wage for a given worker is non-monotonic in the type of his employer. This is due to the fact that in a sorting model, wages reflect the opportunity cost of mismatch. We analytically show that this non-monotonicity prevents standard firm fixed effects to correlate with the true type of the firm. We then propose an alternative procedure that measures the strength of sorting in the presence of search frictions. Knowing the strength of sorting facilitates the measurement of the output loss due to mismatch. Copyright 2011, Oxford University Press.

Critical Types

- Review of Economic Studies---2011---Jeffrey Ely,Marcin Pęski

How can we know in advance whether simplifying assumptions about beliefs will make a difference in the conclusions of game-theoretic models? We define critical types to be types whose rationalizable correspondence is sensitive to assumptions about arbitrarily high-order beliefs. We show that a type is critical if and only if it exhibits common belief in some non-trivial event. We use this characterization to show that all types in commonly used type spaces are critical. On the other hand, we show that regular types (types that are not critical) are generic, although perhaps inconvenient to use in applications. Copyright 2011, Oxford University Press.

Sixty Years after the Magic Carpet Ride: The Long-Run Effect of the Early Childhood Environment on Social and Economic Outcomes

- Review of Economic Studies---2011---Eric Gould,Victor Lavy,M. Daniele Paserman

This paper estimates the effect of the early childhood environment on a large array of social and economic outcomes lasting almost 60 years. To do this, we exploit variation in the living conditions experienced by Yemenite children after being airlifted to Israel in 1949. We find that children who were placed in a more modern environment (i.e. with better sanitary and infrastructure conditions) were more likely to obtain higher education, marry at an older age, have fewer children, and work at age 55. They were also more likely to be assimilated into Israeli society, to be less religious, and have more worldly tastes in music and food. However, these effects are found mainly for women and not for men. We also find an effect on the next generation--children who lived in a better environment grew up to have children with more education. Copyright 2011, Oxford University Press.

Discrete Bids and Empirical Inference in Divisible Good Auctions

- Review of Economic Studies---2011---Jakub Kastl

I examine a model of a uniform price auction of a perfectly divisible good with private information in which the bidders submit discrete bidpoints rather than continuous downward sloping demand functions. I characterize necessary conditions for equilibrium bidding. The characterization reveals a close relationship between bidding in multiunit auctions and oligopolistic behaviour. I demonstrate that a recently proposed indirect approach to the revenue comparisons of discriminatory and uniform price auctions is not valid if bid functions have steps. In particular, bidders may bid above their marginal valuation in a uniform price auction. In order to demonstrate that discrete bidding can have important consequences for empirical analysis I use my model to examine a data set consisting of individual bids in uniform price treasury auctions of the Czech government. I propose an alternative method for evaluating the performance of the employed mechanism. My results suggest that the uniform price auction performs well, both in terms of efficiency of the allocation and in terms of revenue maximization. I estimate that the employed mechanism failed to extract at most 3 basis points in terms of the annual yield of T-bills worth of expected surplus while implementing an allocation resulting in almost all the efficient surplus. Failing to account for discreteness of bids would in my application result in overestimating the unextracted revenue by more than 50%. Copyright 2011, Oxford University Press.

Optimal Procurement Contracts with Pre-Project Planning

- Review of Economic Studies---2011---Daniel Krähmer,Roland Strausz

The paper studies procurement contracts with pre-project investigations in the presence of adverse selection and moral hazard. To model the procurer's problem, we extend a standard sequential screening model to endogenous information acquisition with moral hazard. The optimal contract displays systematic distortions in information acquisition. Due to a rent effect, adverse selection induces too much information acquisition to prevent cost overruns and too little information acquisition to prevent false project cancellations. Moral hazard mitigates the distortions related to cost overruns yet exacerbates those related to false negatives. The optimal mechanism is a menu of option contracts that achieves the dual goal of providing incentives for information acquisition and truthful information revelation. Copyright 2011, Oxford University Press.

On the Mechanics of Firm Growth

- Review of Economic Studies---2011---Erzo Luttmer

The Pareto-like tail of the size distribution of firms can arise from random growth of productivity or stochastic accumulation of capital. If the shocks that give rise to firm growth are perfectly correlated within a firm, then the growth rates of small and large firms are equally volatile, contrary to what is found in the data. If firm growth is the result of many independent shocks within a firm, it can take hundreds of years for a few large firms to emerge. This paper describes an economy with both types of shocks that can account for the thick-tailed firm size distribution, high entry and exit rates, and the relatively young age of large firms. The economy is one in which aggregate growth is driven by the creation of new products by both new and incumbent firms. Some new firms have better ideas than others and choose to implement those ideas at a more rapid pace. Eventually, such firms slow down when the quality of their ideas reverts to the mean. As in the data, average growth rates in a cross section of firms will appear to be independent of firm size, for all but the smallest firms. Copyright 2011, Oxford University Press.

Strength in Numbers: Networks as a Solution to Occupational Traps

- Review of Economic Studies---2011---Kaivan Munshi

The "new classical" theory states that families in low-skill occupations with low levels of human capital can stay poor from one generation to the next, while families in high-skill occupations with correspondingly high levels of human capital stay wealthy, despite being endowed with the same level of ability on average. This paper proposes an informal institutional mechanism--the community-based network--through which families belonging to the same neighbourhood or kinship group can bootstrap their way out of such low-skill occupational traps. The insight from the dynamic model that is developed is that once they form, new networks providing mutual support to their members and substituting for inherited parental human capital and wealth will strengthen most rapidly in historically disadvantaged communities, generating a correspondingly high level of intergenerational mobility. These predictions are successfully tested using unique data from India. The analysis in this paper, coupled with an emerging empirical literature on networks and migration, provides a new perspective on mobility in developing countries, with restrictive traditional networks decaying even as new networks supporting collective mobility form and strengthen over time. Copyright 2011, Oxford University Press.

Enforcing International Trade Agreements with Imperfect Private Monitoring

- Review of Economic Studies---2011---Jee-Hyeong Park

To analyse the role that the World Trade Organization (WTO) plays in enforcing international trade agreements, this paper first explores what countries can achieve alone by characterizing optimal private trigger strategies (PTS) under which each country triggers a punishment phase by imposing an explicit tariff based on privately observed imperfect signals of the other country's concealed trade barriers. It identifies the condition under which countries can restrain the use of concealed barriers based on PTS and establishes that countries will not reduce the cooperative protection level to its minimum attainable level under the optimal PTS. This paper then considers third-party trigger strategies (TTS) under which the WTO allows each country to initiate a punishment phase based on the WTO's judgement about potential violations. By comparing the optimal PTS and optimal TTS, it demonstrates that the WTO facilitates a better cooperative equilibrium by changing the nature of punishmenttriggering signals from private to public, which in turn enables countries to use a more efficient punishment, such as an asymmetric and a minimum punishment. Copyright 2011, Oxford University Press.

Prices and Exchange Rates: A Theory of Disconnect

- Review of Economic Studies---2011---Antonio Rodriguez-Lopez

I present a sticky-wage model of exchange rate pass-through with heterogeneous producers and endogenous markups. The model shows that low levels of exchange rate pass-through to firm- and aggregate-level import prices coexist with large movements in trade flows. After an exchange rate shock, aggregate import prices are subject to a composition bias due to changes in the extensive margin of trade (the number of goods traded between countries). At the firm level, each producer adjusts its markups depending on its own productivity and the change in the competitive environment generated by the exchange rate movement. Firm-level price responses are asymmetric--different for appreciations and depreciations--and adjustments in the intensive margin of trade (firm-level exports) are substantial. In general equilibrium, the model shows that firm reallocations increase the persistence of exogenous shocks. Copyright 2011, Oxford University Press.

Monetary Policy Shifts and the Term Structure

- Review of Economic Studies---2011---Andrew Ang,Jean Boivin,Sen Dong,Rudy Loo-Kung

We estimate the effect of shifts in monetary policy using the term structure of interest rates. In our no-arbitrage model, the short rate follows a version of the Taylor's (1993 , "Discretion Versus Policy Rules in Practice", Carnegie-Rochester Conference Series on Public Policy, 39, 195--214) rule where the coefficients on the output gap and inflation vary over time. The monetary policy loading on the output gap has averaged around $0 \cdot 4$ and has not changed very much over time. The overall response of the yield curve to output gap components is relatively small. In contrast, the inflation loading has changed substantially over the last 50 years and ranges from close to zero in 2003 to a high of $2 \cdot 4$ in 1983. Long-term bonds are sensitive to inflation policy shifts with increases in inflation loadings leading to higher short rates and widening yield spreads. Copyright 2011, Oxford University Press.

Domestic Political Survival and International Conflict: Is Democracy Good for Peace?

- Review of Economic Studies---2011---Sandeep Baliga,David Lucca,Tomas Sjostrom

We build a game-theoretic model where aggression can be triggered by domestic political concerns as well as the fear of being attacked. In the model, leaders of full and limited democracies risk losing power if they do not stand up to threats from abroad. In addition, the leader of a fully democratic country loses the support of the median voter if he attacks a non-hostile country. The result is a non-monotonic relationship between democracy and peace. Using Polity data, we classify countries as full democracies, limited democracies, and dictatorships. For the period 1816--2000, Correlates of War data suggest that limited democracies are more aggressive than other regime types, including dictatorships, and not only during periods when the political regime is changing. In particular, a dyad of limited democracies is more likely to be involved in a militarized dispute than any other dyad (including "mixed" dyads, where the two countries have different regime types). Thus, while full democratization might advance the cause of peace, limited democratization might advance the cause of war. We also find that as the environment becomes more hostile, fully democratic countries become more aggressive faster than other regime types. Copyright 2011, Oxford University Press.

Competence and Ideology

- Review of Economic Studies---2011---Dan Bernhardt,Odilon Câmara,Francesco Squintani

We develop a dynamic repeated election model in which citizen candidates are distinguished by both their ideology and valence. Voters observe an incumbent's valence and policy choices but only know the challenger's party. Our model provides a rich set of novel results. In contrast to existing predictions from static models, we prove that dynamic considerations make higher-valence incumbents more likely to compromise and win re-election, even though they compromise to more extreme policies. Consequently, we find that the correlation between valence and extremist policies rises with office-holder seniority. This result may help explain previous empirical findings. Despite this result, we establish that the whole electorate gains from improvements in the distribution of valences. In contrast, fixing average valence, the greater dispersion in valence associated with a high-valence political elite always benefits the median voter but can harm a majority of voters when voters are sufficiently risk averse. We then consider interest groups (IGs) or activists who search for candidates with better skills. We derive a complete theoretical explanation for the intuitive conjectures that policies are more extreme when IGs and activists have more extreme ideologies, and that such extremism reduces the welfare of all voters. Copyright 2011, Oxford University Press.

Investor Overconfidence and the Forward Premium Puzzle

- Review of Economic Studies---2011---Craig Burnside,Bing Han,David Hirshleifer,Tracy Yue Wang

We offer an explanation for the forward premium puzzle in foreign exchange markets based upon investor overconfidence. In the model, overconfident individuals overreact to their information about future inflation, which causes greater overshooting in the forward rate than in the spot rate. Thus, when agents observe a signal of higher future inflation, the consequent rise in the forward premium predicts a subsequent downward correction of the spot rate. The model can explain the magnitude of the forward premium bias and several other stylized facts related to the joint behaviour of forward and spot exchange rates. Our approach is also consistent with the availability of profitable carry trade strategies. Copyright 2011, Oxford University Press.

Inference for Extremal Conditional Quantile Models, with an Application to Market and Birthweight Risks

- Review of Economic Studies---2011---Victor Chernozhukov,Ivan Fernandez-Val

Quantile regression (QR) is an increasingly important empirical tool in economics and other sciences for analysing the impact a set of regressors has on the conditional distribution of an outcome. Extremal QR, or QR applied to the tails, is of interest in many economic and financial applications, such as conditional value at risk, production efficiency, and adjustment bands in (S,s) models. This paper provides feasible inference tools for extremal conditional quantile models that rely on extreme value approximations to the distribution of self-normalized QR statistics. The methods are simple to implement and can be of independent interest even in the univariate (non-regression) case. We illustrate the results with two empirical examples analysing extreme fluctuations of a stock return and extremely low percentiles of live infant birthweight in the range between 250 and 1500 g. Copyright 2011, Oxford University Press.

Campaign Advertising and Election Outcomes: Quasi-natural Experiment Evidence from Gubernatorial Elections in Brazil

- Review of Economic Studies---2011---Bernardo S. Da Silveira,Joao De Mello

Whether campaign advertising influences election outcomes is an open question; a paradox given the amount spent on campaigning in general and TV advertising in particular. We argue that such "absence of documentation" is due to the focus of the empirical literature on the U.S., where the allocation of campaign spending and advertising is decentralized. We explore a quasi-natural experiment that enables us to mitigate the omitted variables and reverse causality problems caused by decentralized allocation. In Brazil, gubernatorial elections work in a two-round system. In the first round, candidates' TV time shares are determined by their coalitions' share of seats in the National Parliament. In the second round, TV time is split equally between the first-round winner and runner-up. Using differences between rounds as a source of variation, we find a large causal effect of TV advertising on election outcomes. Copyright 2011, Oxford University Press.

Other-Regarding Preferences in General Equilibrium

- Review of Economic Studies---2011---Martin Dufwenberg,Paul Heidhues,Georg Kirchsteiger,Frank Riedel,Joel Sobel

We study competitive market outcomes in economies where agents have other-regarding preferences (ORPs). We identify a separability condition on monotone preferences that is necessary and sufficient for one's own demand to be independent of the allocations and characteristics of other agents in the economy. Given separability, it is impossible to identify ORPs from market behaviour: agents behave as if they had classical preferences that depend only on own consumption in competitive equilibrium. If preferences, in addition, depend only on the final allocation of consumption in society, the Second Welfare Theorem holds as long as any increase in resources can be distributed in a way that makes all agents better off. The First Welfare Theorem generally does not hold. Allowing agents to care about their own consumption and the distribution of consumption possibilities in the economy, the competitive equilibria are efficient given prices if and only if there is no Pareto-improving redistribution of income. Copyright 2011, Oxford University Press.

A Spatial Theory of Media Slant and Voter Choice

- Review of Economic Studies---2011---J. Duggan,Cesar Martinelli

We develop a theory of media slant as a systematic filtering of political news that reduces multidimensional politics to the one-dimensional space perceived by voters. Economic and political choices are interdependent in our theory: expected electoral results influence economic choices, and economic choices in turn influence voting behaviour. In a two-candidate election, we show that media favouring the front-runner will focus on issues unlikely to deliver a surprise, while media favouring the underdog will gamble for resurrection. We characterize the socially optimal slant and show that it coincides with the one favoured by the underdog under a variety of circumstances. Balanced media, giving each issue equal coverage, may be worse for voters than partisan media. Copyright 2011, Oxford University Press.

Preemption Games with Private Information

- Review of Economic Studies---2011---Hugo A. Hopenhayn,Francesco Squintani

Preemption games are widely used to model economic problems such as patent races. We introduce private information into these games and allow for this information to stochastically change over time. This reflects, e.g. how R&D competitors improve their innovations over time and keep these innovations secret before patenting them. The analysis initially appears intractable because of the complexity of the equilibrium updating of beliefs on opponents' information. However, we demonstrate the existence of a class of equilibria and calculate these equilibria in closed form. We find that the expected durations in these equilibria are longer than when players' information is public but, in some cases, shorter than in the collusive outcome. Hence, R&D secrecy slows down innovation disclosure. Copyright 2011, Oxford University Press.

Negatively Correlated Bandits

- Review of Economic Studies---2011---Nicolas Klein,Sven Rady

We analyse a two-player game of strategic experimentation with two-armed bandits. Either player has to decide in continuous time whether to use a safe arm with a known pay-off or a risky arm whose expected pay-off per unit of time is initially unknown. This pay-off can be high or low and is negatively correlated across players. We characterize the set of all Markov perfect equilibria in the benchmark case where the risky arms are known to be of opposite type and construct equilibria in cut-off strategies for arbitrary negative correlation. All strategies and pay-offs are in closed form. In marked contrast to the case where both risky arms are of the same type, there always exists an equilibrium in cut-off strategies, and there always exists an equilibrium exhibiting efficient long-run patterns of learning. These results extend to a three-player game with common knowledge that exactly one risky arm is of the high pay-off type. Copyright 2011, Oxford University Press.

Incentives in Competitive Search Equilibrium

- Review of Economic Studies---2011---Espen Moen,Åsa Rosén

This paper proposes a labour market model with job search frictions where workers have private information on match quality and effort. Firms use wage contracts to motivate workers. In addition, wages are also used to attract employees. We define and characterize competitive search equilibrium in this context, and show that it satisfies a simple modified Hosios rule. We also analyse the interplay between macroeconomic variables and optimal wage contracts. Finally, we show that private information may increase the responsiveness of the unemployment rate to changes in the aggregate productivity level and, in particular, to changes in the information structure. Copyright 2011, Oxford University Press.

Subjective Performance and the Value of Blind Evaluation

- Review of Economic Studies---2011---Curtis R. Taylor,Huseyin Yildirim

The incentive and project selection effects of agent anonymity are investigated in a setting where an evaluator observes a subjective signal of project quality. Although the evaluator cannot commit ex ante to an acceptance criterion, she decides up front between informed review, where the agent's ability is directly observable, or blind review, where it is not. An ideal acceptance criterion balances the goals of incentive provision and project selection. Relative to this, informed review results in an excessively steep equilibrium acceptance policy: the standard applied to low-ability agents is too stringent and the standard applied to high-ability agents is too lenient. Blind review, in which all types face the same standard, often provides better incentives, but it ignores valuable information for selecting projects. The evaluator prefers a policy of blind (respectively informed) review when the ability distribution puts more weight on high (respectively low) types, the agent's pay-off from acceptance is high (respectively low), or the quality signal is precise (respectively imprecise). Applications discussed include the admissibility of character evidence in criminal trials and academic refereeing. Copyright 2011, Oxford University Press.

On the Justice of Decision Rules

- Review of Economic Studies---2011---Jose Apesteguia,Miguel Ballester,Rosa Ferrer

Which decision rules are the most efficient? Which are the best in terms of maximin or maximax? We study these questions for the case of a group of individuals faced with a collective choice from a set of alternatives. A key message from our results is that the set of optimal decision rules is well defined, particularly simple, and well known: the class of scoring rules. We provide the optimal scoring rules for the three different ideals of justice under consideration: utilitarianism (efficiency), maximin, and maximax. The optimal utilitarian scoring rule depends crucially on the probability distribution of the utilities. The optimal maximin (respectively maximax) scoring rule takes the optimal utilitarian scoring rule and applies a factor that shifts it towards negative voting (respectively plurality voting). Copyright 2011, Oxford University Press.

On the Faustian Dynamics of Policy and Political Power

- Review of Economic Studies---2011---Jinhui Bai,Roger Lagunoff

This paper examines the Faustian dynamics of policy and power. We posit a general class of dynamic games in which current policies affect the future distribution of political power, resulting in the following "Faustian trade-off": if the current ruler chooses his preferred policy, he then sacrifices future political power; yet if he wants to preserve his future power, he must sacrifice his present policy objectives. The trade-off comes from the fact that the current political ruler/pivotal voter cannot uncouple the direct effect of his policy from its indirect effect on future power. A policy-endogenous (PE) equilibrium describes this endogenous transfer of power and the resulting evolution of policy and political power over time. We show that the Faustian trade-off in a PE equilibrium is decomposed into two basic rationales. The political preservation effect induces more tempered policy choices than if one's policy choice did not affect one's political fortunes. However, the reformation effect induces "more aggressive" policies in order to exploit the productivity gains from policies chosen by even more aggressive successors. We distinguish between political systems that give rise to monotone Faustian dynamics--political power that progressively evolves towards more fiscally liberal types of leaders--and cyclical Faustian dynamics--political power that oscillates between liberal and conservative types of leaders. In each case, we show that the Faustian trade-off moderates the choices of each type of leader. Copyright 2011, Oxford University Press.

Globalization and Risk Sharing

- Review of Economic Studies---2011---Fernando Broner,Jaume Ventura

We study the effects of globalization on risk sharing and welfare. Like the previous literature, we assume that governments cannot commit to enforce the repayment of debts owed by their citizens. Unlike the previous literature, we assume that governments cannot discriminate between domestic and foreign creditors when enforcing debt payments. This creates novel interactions between domestic and international trade in assets. (i) Increases in domestic trade raise the benefits of enforcement and facilitate international trade. In fact, in our set-up, countries can obtain international risk sharing even in the absence of default penalties. (ii) Increases in foreign trade raise the costs of enforcement and hamper domestic trade. As a result, globalization may worsen domestic risk sharing and lower welfare. We show how these effects depend on various characteristics of tradable goods and explore the roles of borrowing limits, debt renegotiations, and trade policy. Copyright 2011, Oxford University Press.

Dynamic Price Competition with Network Effects

- Review of Economic Studies---2011---Luis Cabral

I consider a dynamic model of competition between two proprietary networks. Consumers die and are replaced with a constant hazard rate, and firms compete for new consumers to join their network by offering network entry prices. I derive a series of results pertaining to (a) existence and uniqueness of symmetric equilibria, (b) monotonicity of the pricing function (e.g. larger networks set higher prices), (c) network size dynamics (increasing dominance vs. reversion to the mean), and (d) firm value (how it varies with network effects). Finally, I apply my general framework to the study of termination charges in wireless telecommunications. I consider various forms of regulation and examine their impact on firm profits and market share dynamics. Copyright 2011, Oxford University Press.

Adverse Selection and Convertible Bonds

- Review of Economic Studies---2011---Archishman Chakraborty,Bilge Yilmaz

Informational asymmetries between a firm and investors may lead to adverse selection in capital markets. This paper demonstrates that when the market obtains noisy information about a firm over time, this adverse selection problem can be costlessly solved by issuing callable convertible bonds with restrictive call provisions. Such securities can be designed to make the payoff to new claimholders independent of the private information of the manager. This eliminates the possibility of any dilution of equity or underinvestment and implements the symmetric information outcome in either a pooling or a separating equilibrium. The same first-best efficient outcome can also be implemented by issuing floating-price and mandatory convertibles. Copyright 2011, Oxford University Press.

The Revealed Preference Approach to Collective Consumption Behaviour: Testing and Sharing Rule Recovery

- Review of Economic Studies---2011---Laurens Cherchye,Bram De Rock,Frederic Vermeulen

We present a revealed preference methodology for empirically analysing collective consumption behaviour. First, we introduce an integer programming (IP) methodology for testing data consistency with collective consumption models that account for publicly as well as privately consumed goods. This IP methodology can include information on "assignable quantities" for private goods. Next, we show that the IP methodology allows for recovering the personalized (Lindahl) prices for the public goods and the personalized quantities for the private goods. In turn, this implies recovery of the sharing rule (i.e. personalized income share levels). An empirical application demonstrates the practical usefulness of the methodology. Copyright 2011, Oxford University Press.

A Multiplier Approach to Understanding the Macro Implications of Household Finance

- Review of Economic Studies---2011---YiLi Chien,Harold Cole,Hanno Lustig

Our paper examines the impact of heterogeneous trading technologies for households on asset prices and the distribution of wealth. We distinguish between passive traders who hold fixed portfolios of stocks and bonds, and active traders who adjust their portfolios to changes in expected returns. To solve the model, we derive an optimal consumption sharing rule that does not depend on the trading technology, and we derive an aggregation result for state prices. This allows us to solve for equilibrium prices and allocations without having to search for market clearing prices in each asset market separately. We show that the fraction of total wealth held by active traders, not the fraction held by all participants, is critical for asset prices because only these traders respond to variation in state prices and hence absorb the residual aggregate risk created by non-participants. We calibrate the heterogeneity in trading technologies to match the equity premium and the risk-free rate. The calibrated model reproduces the skewness and kurtosis of the wealth distribution in the data. In contrast to existing asset pricing models with heterogeneous agents, our model matches the high volatility of returns and the low volatility of the risk-free rate. Copyright 2011, Oxford University Press.

Consideration Sets and Competitive Marketing

- Review of Economic Studies---2011---Kfir Eliaz,Ran Spiegler

We study a market model in which competing firms use costly marketing devices to influence the set of alternatives which consumers perceive as relevant. Consumers in our model are boundedly rational in the sense that they have an imperfect perception of what is relevant to their decision problem. They apply well-defined preferences to a "consideration set", which is a function of the marketing devices employed by the firms. We examine the implications of this behavioural model in the context of a competitive market model, particularly on industry profits, vertical product differentiation, the use of marketing devices, and consumers' conversion rates. Copyright 2011, Oxford University Press.

Learning and Complementarities in Speculative Attacks

- Review of Economic Studies---2011---Itay Goldstein,Emre Ozdenoren,Kathy Yuan

We study a model where the aggregate trading of currency speculators reveals new information to the central bank and affects its policy decision. We show that the learning process gives rise to coordination motives among speculators leading to large currency attacks and introducing non-fundamental volatility into exchange rates and policy decisions. We show that the central bank can improve the ex ante effectiveness of its policy by committing to put a lower weight ex post on the information from the market, and that transparency may either increase or decrease the effectiveness of learning from the market, depending on how it is implemented. Copyright 2011, Oxford University Press.

Identification and Estimation of Auction Models with Unobserved Heterogeneity

- Review of Economic Studies---2011---Elena Krasnokutskaya

In many procurement auctions, the bidders' unobserved costs depend both on a common shock and on idiosyncratic private information. Assuming a multiplicative structure, I derive sufficient conditions under which the model is identified and propose a non-parametric estimation procedure that results in uniformly consistent estimators of the cost components' distributions. The estimation procedure is applied to data from Michigan highway procurement auctions. Private information is estimated to account for 34% of the variation in bidders' costs. It is shown that accounting for unobserved auction heterogeneity has important implications for the evaluation of the distribution of rents, efficiency, and optimal auction design. Copyright 2011, Oxford University Press.

Consumption Inequality and Intra-household Allocations

- Review of Economic Studies---2011---Jeremy Lise,Shannon Seitz

The consumption literature uses adult equivalence scales to measure individual-level inequality. This practice imposes the assumption that there is no within-household inequality. In this paper, we show that ignoring consumption inequality within households produces misleading estimates of inequality along two dimensions. To illustrate this point, we use a collective model of household behaviour to estimate consumption inequality in the U.K. from 1968 to 2001. First, the use of adult equivalence scales underestimates the initial level of cross-sectional consumption inequality by 50%, as large differences in the earnings of husbands and wives translate into large differences in consumption allocations within households. Second, we estimate the rise in between-household inequality has been accompanied by an offsetting reduction in within-household inequality. Our findings also indicate that increases in marital sorting on wages and hours worked can simultaneously explain two-thirds of the decline in within-household inequality and between a quarter and one-half of the rise in between-household inequality for one and two adult households. Copyright 2011, Oxford University Press.

Social Learning and Peer Effects in Consumption: Evidence from Movie Sales

- Review of Economic Studies---2011---Enrico Moretti

Using box-office data for all movies released between 1982 and 2000, I quantify how much the consumption decisions of individuals depend on information they receive from their peers, when quality is ex ante uncertain. In the presence of social learning, we should see different box-office sales dynamics depending on whether opening weekend demand is higher or lower than expected. I use a unique feature of the movie industry to identify ex ante demand expectations: the number of screens dedicated to a movie in its opening weekend reflects the sales expectations held by profit-maximizing theatre owners. Several pieces of evidence are consistent with social learning. First, sales of movies with positive surprise and negative surprise in opening weekend demand diverge over time. If a movie has better than expected appeal and therefore experiences larger than expected sales in Week 1, consumers in Week 2 update upward their expectations of quality, further increasing Week 2 sales. Second, this divergence is small for movies for which consumers have strong priors and large for movies for which consumers have weak priors. Third, the effect of a surprise is stronger for audiences with large social networks. Finally, consumers do not respond to surprises in first-week sales that are orthogonal to movie quality, like weather shocks. Overall, social learning appears to be an important determinant of sales in the movie industry, accounting for 32% of sales for the typical movie with positive surprise. This implies the existence of a large "social multiplier" such that the elasticity of aggregate demand to movie quality is larger than the elasticity of individual demand. Copyright 2011, Oxford University Press.

Estimating Intertemporal Allocation Parameters using Synthetic Residual Estimation

- Review of Economic Studies---2010---Sule Alan,Martin Browning

We present a novel structural estimation procedure for models of intertemporal allocation. This is based on modelling expectations errors directly; we refer to it as synthetic residual estimation (SRE). The flexibility of SRE allows us to account for measurement error in consumption and for heterogeneity in intertemporal allocation parameters. An investigation of the small sample properties of the SRE estimator indicates that it dominates generalized method of moments (GMM) estimation of both exact and approximate Euler equations in the case when we have short panels and noisy consumption data. We apply SRE to two panels drawn from the Panel Study of Income Dynamics (PSID) and estimate the joint distribution of the discount factor and the elasticity of intertemporal substitution. We reject strongly homogeneity of the discount factor and the elasticity of intertemporal substitution. We find that, on average, the more educated are more patient and less willing to substitute intertemporally than the less educated. Within education strata, patience and willingness to substitute are positively correlated. Copyright , Wiley-Blackwell.

Missing Women: Age and Disease

- Review of Economic Studies---2010---Siwan Anderson,Debraj Ray

Relative to developed countries and some parts of the developing world, most notably sub-Saharan Africa, there are far fewer women than men in India and China. It has been argued that as many as a 100 million women could be missing. The possibility of gender bias at birth and the mistreatment of young girls are widely regarded as key explanations. We provide a decomposition of these missing women by age and cause of death. While we do not dispute the existence of severe gender bias at young ages, our computations yield some striking new findings: (1) the vast majority of missing women in India and a significant proportion of those in China are of adult age; (2) as a proportion of the total female population, the number of missing women is largest in sub-Saharan Africa, and the absolute numbers are comparable to those for India and China; (3) almost all the missing women stem from disease-by-disease comparisons and not from the changing composition of disease, as described by the epidemiological transition. Finally, using historical data, we argue that a comparable proportion of women was missing at the start of the 20th century in the United States, just as they are in India, China, and sub-Saharan Africa today. Copyright , Wiley-Blackwell.

Can Gender Parity Break the Glass Ceiling? Evidence from a Repeated Randomized Experiment

- Review of Economic Studies---2010---Manuel Bagues,Berta Esteve-Volart

This paper studies whether the gender composition of recruiting committees matters. We make use of the unique evidence provided by Spanish public examinations, where the allocation of candidates to evaluating committees is random. We analyse how the chances of success of 150,000 female and male candidates for positions in the four main Corps of the Spanish Judiciary from 1987 to 2007 were affected by the gender composition of their evaluation committee. We find that a female (male) candidate is significantly less likely to be hired whenever she (he) is randomly assigned to a committee where the share of female (male) evaluators is relatively greater. Evidence from multiple choice tests suggests that this is due to the fact that female majority committees overestimate the quality of male candidates. Copyright , Wiley-Blackwell.

Political Competition, Policy and Growth: Theory and Evidence from the US

- Review of Economic Studies---2010---Timothy Besley,Torsten Persson,Daniel Sturm

This paper develops a simple model to analyse how a lack of political competition may lead to policies that hinder economic growth. We test the predictions of the model on panel data for the US states. In these data, we find robust evidence that lack of political competition in a state is associated with anti-growth policies: higher taxes, lower capital spending, and a reduced likelihood of using rightto- work laws. We also document a strong link between low political competition and low income growth. Copyright , Wiley-Blackwell.

Modelling Income Processes with Lots of Heterogeneity

- Review of Economic Studies---2010---Martin Browning,Mette Ejrnæs,Javier Alvarez

We model earnings processes allowing for lots of heterogeneity across agents. We also introduce an extension to the linear ARMA model which allows the initial convergence in the long run to be different from that implied by the conventional ARMA model. This is particularly important for unit root tests, which are actually tests of a composite of two independent hypotheses. We fit to a variety of statistics including most of those considered by previous investigators. We use a sample drawn from the Panel Study of Income Dynamics (PSID), and focus on white males with a high-school degree. Despite this observable homogeneity, we find more latent heterogeneity than previous investigators. We show that allowance for heterogeneity makes substantial differences to estimates of model parameters and to outcomes of interest. Additionally, we find strong evidence against the hypothesis that any worker has a unit root. Copyright , Wiley-Blackwell.

Habits Revealed

- Review of Economic Studies---2010---Ian Crawford

This paper sets out necessary and sufficient empirical conditions for rational intrinsic habits models in the revealed preference tradition of Samuelson (1948) , Houthakker (1950) , Afriat (1967) , and Browning (1989) . The conditions in the paper are shown to be computationally straightforward and to yield set identification for certain features of the model. The ideas outlined are applied to a microeconomic panel dataset. The addition of habit formation to the discounted utility model is shown to improve the rationalizability of the microdata considerably. Even if habit formation is rejected, it is shown that modest and plausible allowance for heterogeneity in prices and interest rates is sufficient to bring consumption behaviour into line with the theory. Copyright , Wiley-Blackwell.

Exploring Higher Order Risk Effects

- Review of Economic Studies---2010---Cary Deck,Harris Schlesinger

Precautionary saving has been linked to the property of prudence, and the property of temperance has been used to show how the presence of an unavoidable risk affects one’s behaviour towards a second risk. These two higher order risk effects also play key roles in aversion to negative skewness and to kurtosis, respectively. This article presents a laboratory experiment to determine whether subjects are prudent and/or temperate. The experiment is based upon preferences over lottery pairs in simple 50-50 gambles. Subjects are asked in which of two states of nature they would prefer to receive a zero-mean gamble. For prudence, the choices are between a lower and higher wealth outcome. For temperance, the choices are between a state with no other risk and a state with a second (independent) risk. The results show behavioural evidence for prudence, but they also show evidence of intemperate behaviour. Implications of these results for both expected-utility and non-expected-utility models are examined. Copyright , Wiley-Blackwell.

How Important Is Human Capital? A Quantitative Theory Assessment of World Income Inequality

- Review of Economic Studies---2010---Andres Erosa,Tatyana Koreshkova,Diego Restuccia

We build a model of heterogeneous individuals—who make investments in schooling quantity and quality—to quantify the importance of differences in human capital vs. total factor productivity (TFP) in explaining the variation in per capita income across countries. The production of human capital requires expenditures and time inputs; the relative importance of these inputs determines the predictions of the theory for inequality both within and across countries. We discipline our quantitative assessment with a calibration firmly grounded on US micro evidence. Since in our calibrated model economy human capital production requires a significant amount of expenditures, TFP changes affect disproportionately the benefits and costs of human capital accumulation. Our main finding is that human capital accumulation strongly amplifies TFP differences across countries: to explain a 20-fold difference in the output per worker, the model requires a 5-fold difference in the TFP of the tradable sector, vs. an 18-fold difference if human capital is fixed across countries. Copyright , Wiley-Blackwell.

The Long and Short (of) Quality Ladders

- Review of Economic Studies---2010---Amit Khandelwal

Prices are typically used as proxies for countries' export quality. I relax this strong assumption by exploiting both price and quantity information to estimate the quality of products exported to the United States. Higher quality is assigned to products with higher market shares conditional on price. The estimated qualities reveal substantial heterogeneity in product markets' scope for quality differentiation, or their "quality ladders". I use this variation to explain the heterogeneous impact of low-wage competition on US manufacturing employment and output. Markets characterized by relatively short quality ladders are associated with larger employment and output declines resulting from low-wage competition. Copyright , Wiley-Blackwell.

Labour-Market Matching with Precautionary Savings and Aggregate Fluctuations

- Review of Economic Studies---2010---Per Krusell,Toshihiko Mukoyama,Ayşegül Şahin

We analyse a Bewley-Huggett-Aiyagari incomplete-markets model with labour-market frictions. Consumers are subject to idiosyncratic employment shocks against which they cannot insure directly. The labour market has a Diamond-Mortensen-Pissarides structure: firms enter by posting vacancies and match with workers bilaterally, with match probabilities given by an aggregate matching function. Wages are determined through Nash bargaining. We also consider aggregate productivity shocks and a complete set of contingent claims conditional on this risk. We use the model to evaluate a tax-financed unemployment insurance scheme. Higher insurance is beneficial for consumption smoothing, but because it raises workers' outside option value, it discourages firm entry. We find that the latter effect is more potent for welfare outcomes; we tabulate the effects quantitatively for different kinds of consumers. We also demonstrate that productivity changes in the model—in steady state as well as stochastic ones—generate rather limited unemployment effects, unless workers are close to indifferent between working and not working; thus, recent findings are corroborated in our more general setting. Copyright , Wiley-Blackwell.

Efficient Estimation of the Parameter Path in Unstable Time Series Models

- Review of Economic Studies---2010---Ulrich K. Müller,Philippe-Emmanuel. Petalas

The paper investigates inference in non-linear and non-Gaussian models with moderately time-varying parameters. We show that for many decision problems, the sample information about the parameter path can be summarized by an artificial linear and Gaussian model, at least asymptotically. The approximation allows for computationally convenient path estimators and parameter stability tests. Also, in contrast to standard Bayesian techniques, the artificial model can be robustified so that in misspecified models, decisions about the path of the (pseudo-true) parameter remain as good as in a corresponding correctly specified model. Copyright , Wiley-Blackwell.

Choosing the Carrot or the Stick? Endogenous Institutional Choice in Social Dilemma Situations

- Review of Economic Studies---2010---Matthias Sutter,Stefan Haigner,Martin Kocher

We analyse an experimental public goods game in which group members can endogenously determine whether they want to supplement a standard voluntary contribution mechanism with the possibility of rewarding or punishing other group members. We find a significantly positive effect of endogenous institutional choice on the level of cooperation in comparison to the same exogenously implemented institutions. This suggests that participation rights enhance cooperation in groups. With endogenous choice, groups typically vote for the reward option, although punishment is even more effective in sustaining high levels of cooperation. Our results are evaluated against the predictions of social preference models. Copyright , Wiley-Blackwell.

Why Has House Price Dispersion Gone Up?

- Review of Economic Studies---2010---Stijn Van Nieuwerburgh,Pierre-Olivier Weill

We set up and solve a spatial, dynamic equilibrium model of the housing market based on two main assumptions: households with heterogenous abilities flow in and out metropolitan areas in response to local wage shocks, and the housing supply cannot adjust instantly because of regulatory constraints. In our equilibrium, house prices compensate for cross-sectional productivity differences. We increase productivity dispersion in the calibrated model in order to match the 30-year increase in cross-sectional wage dispersion that we document based on metropolitan-level data. We show that the model quantitatively matches the observed 30-year increase in dispersion of house prices across US metropolitan areas. It is consistent with several other features of the cross-sectional distribution of house prices and wages. Copyright , Wiley-Blackwell.

Dynamic Mirrlees Taxation under Political Economy Constraints

- Review of Economic Studies---2010---Daron Acemoglu,Mikhail Golosov,Aleh Tsyvinski

We study the structure of non-linear taxes in a dynamic economy subject to political economy problems. In contrast to existing literature, taxes are set by a self-interested politician, without any commitment power, who is partly controlled by the citizens. We prove that: (1) a version of the revelation principle applies; and (2) the provision of incentives to politicians can be separated from the provision of incentives to individuals. Using these results, we provide conditions under which distortions created by political economy problems persist or disappear. We then extend these results to environments with partially benevolent governments and potential ex post conflict among the citizens. Copyright , Wiley-Blackwell.

Moderation in Groups: Evidence from Betting on Ice Break-ups in Alaska

- Review of Economic Studies---2010---Renee Adams,Daniel Ferreira

We use a large sample of guessed ice break-up dates for the Tanana River in Alaska to study differences between outcomes of decisions made by individuals versus groups. We estimate the distribution of guesses conditional on whether they were made by individual bettors or betting pools. We document two major distinctions between the two sets of guesses: (1) the distribution of guesses made by groups of bettors appears to conform more to the distribution of historical break-up dates than the distribution of guesses made by individual bettors, and (2) the distribution for groups has less mass in its tails and displays lower variability than the distribution for individuals. We argue that these two pieces of evidence are consistent with the hypothesis that group decisions are more moderate, either because groups have to reach a compromise when their members disagree or because individuals with extreme opinions are less likely to be part of a group. Copyright , Wiley-Blackwell.

Equilibrium Asset Prices and Investor Behaviour in the Presence of Money Illusion

- Review of Economic Studies---2010---Suleyman Basak,Hongjun Yan

This article analyses the implications of money illusion for investor behaviour and asset prices in a securities market economy with inflationary fluctuations. We provide a belief-based formulation of money illusion which accounts for the systematic mistakes in evaluating real and nominal quantities. The impact of money illusion on security prices and their dynamics is demonstrated to be considerable even though its welfare cost on investors is small in typical environments. A money-illusioned investor's real consumption is shown to generally depend on the price level, and specifically to decrease in the price level. A general-equilibrium analysis in the presence of money illusion generates implications that are consistent with several empirical regularities. In particular, the real bond yields and dividend price ratios are positively related to expected inflation, the real short rate is negatively correlated with realized inflation, and money illusion may induce predictability and excess volatility in stock returns. The basic analysis is generalized to incorporate heterogeneous investors with differing degrees of illusion. Copyright , Wiley-Blackwell.

Satisficing Contracts

- Review of Economic Studies---2010---Patrick Bolton,Antoine Faure-Grimaud

We propose a model of equilibrium contracting between two agents who are "boundedly rational" in the sense that they face time costs of deliberating current and future transactions. We show that equilibrium contracts may be incomplete and assign control rights: they may leave some enforceable future transactions unspecified and instead specify which agent has the right to decide these transactions. Control rights allow the controlling agent to defer time-consuming deliberations on those transactions to a later date, making her less inclined to prolong negotiations over an initial incomplete contract. Still, agents tend to resolve conflicts up-front by writing more complete initial contracts. A more complete contract can take the form of either a finer adaptation to future contingencies, or greater coarseness. Either way, conflicts among contracting agents tend to result in excessively complete contracts in the sense that the maximization of joint payoffs would result in less complete contracts. Copyright , Wiley-Blackwell.

Interfirm Mobility, Wages and the Returns to Seniority and Experience in the United States

- Review of Economic Studies---2010---Moshe Buchinsky,Denis Fougere,Francis Kramarz,Rusty Tchernis

In this paper, we expand on the seminal work of Altonji and Shakotko (1987) and Topel (1991) and reinvestigate the returns to seniority in the United States. We begin with the same wage equation as in previous studies. We extend the model of Hyslop (1999) and explicitly model the participation/employment and inter-firm mobility decisions, which, in turn, define the individual's experience and seniority. We introduce into the wage equation a summary of the workers' entire career path. The three-equation system is estimated simultaneously using data from the Panel Study of Income Dynamics (PSID). We find that for each of the three education groups studied the returns to seniority are larger than those previously found in the literature. Copyright , Wiley-Blackwell.

Partial Identification of the Distribution of Treatment Effects in Switching Regime Models and its Confidence Sets

- Review of Economic Studies---2010---Yanqin Fan,Jisong Wu

In this paper, we establish sharp bounds on the joint distribution of potential outcomes and the distribution of treatment effects in parametric switching regime models with normal mean-variance mixture errors and in the semi-parametric switching regime models of Heckman (1990) . Our results for parametric switching regime models with normal mean-variance mixture errors extend some existing results for the Gaussian switching regime model and our results for semi-parametric switching regime models supplement the point identification results of Heckman (1990) . Compared with the corresponding sharp bounds when selection is random, we observe that self-selection tightens the bounds on the joint distribution of the potential outcomes and the distribution of treatment effects. These bounds depend on the identified model parameters only and can be easily estimated once the identified model parameters are estimated. The important issue of inference is briefly discussed. Copyright , Wiley-Blackwell.

Ramsey Tax Cycles

- Review of Economic Studies---2010---Marcus Hagedorn

This paper asks whether tax cycles or tax smoothing represents the optimal policy in models without any extrinsic uncertainty. To answer this question, I develop a general framework for studying tax cycles in a large class of models that feature various types of frictions. This framework adds various wedges, resembling tax wedges, to the labour market, to the product market, and to money acquisition into an otherwise frictionless economy, so that it nests a large class of models used for policy analysis. I derive a criterion for this general framework that indicates when cycles are welfare-improving in a frictionless economy, and why frictions make cycles more likely to be optimal. I then calibrate two models with frictions, a labour search model and a monetary model, and show that cycles are welfare-improving under standard preferences. Copyright , Wiley-Blackwell.

Strategic Communication Networks

- Review of Economic Studies---2010---Jeanne Hagenbach,Frederic Koessler

We consider situations in which every agent would like to take an action that is coordinated with those of others, as well as close to a common state of nature, with the ideal proximity to that state varying across agents. Before this coordination game is played, agents decide to whom they reveal their private information about the state. The information transmission occurring in the cheap-talk communication stage is characterized by a strategic communication network whose links represent truthful information transmission. In equilibrium, whether communication takes place between two agents depends not only on the conflict of interest between these agents, but also on the number and preferences of the other agents with whom they communicate. In particular, communication to a large group of recipients may be feasible even though communication to a small subset of that group may not be. We show that agents who are more central in terms of preference tend to communicate more and to have a greater impact on decisions. Copyright , Wiley-Blackwell.

Labour Market Rigidities, Trade and Unemployment

- Review of Economic Studies---2010---Elhanan Helpman,Oleg Itskhoki

We study a two-country, two-sector model of international trade in which one sector produces homogeneous products and the other produces differentiated products. Both sectors are subjected to search and matching frictions in the labour market and wage bargaining. As a result, some of the workers searching for jobs end up being unemployed. Countries are similar except for frictions in their labour markets, such as efficiency of matching and costs of posting vacancies, which can vary across the sectors. The differentiated-product industry has firm heterogeneity and monopolistic competition. We study the interaction of labour market rigidities and trade impediments in shaping welfare, trade flows, productivity, and unemployment. We show that both countries gain from trade. A country with relatively lower frictions in the differentiated-product industry exports differentiated products on net. A country benefits from lowering frictions in its differentiated sector's labour market, but this harms the country's trade partner. Alternatively, a simultaneous, proportional lowering of labour market frictions in the differentiated sectors of both countries benefits both of them. The opening to trade raises a country's rate of unemployment if its relative labour market frictions in the differentiated sector are low, and it reduces the rate of unemployment if its relative labour market frictions in the differentiated sector are high. Cross-country differences in rates of unemployment exhibit rich patterns. In particular, lower labour market frictions do not ensure lower unemployment, and unemployment and welfare can both rise in response to falling labour market frictions and falling trade costs. Copyright , Wiley-Blackwell.

Interdependent Durations

- Review of Economic Studies---2010---Bo E. Honor,Aureo de Paula

This paper studies the identification of a simultaneous equation model involving duration measures. It proposes a game theoretic model in which durations are determined by strategic agents. In the absence of strategic motives, the model delivers a version of the generalized accelerated failure time model. In its most general form, the system resembles a classical simultaneous equation model in which endogenous variables interact with observable and unobservable exogenous components to characterize an economic environment. In this paper, the endogenous variables are the individually chosen equilibrium durations. Even though a unique solution to the game is not always attainable in this context, the structural elements of the economic system are shown to be semi-parametrically identified. We also present a brief discussion of estimation ideas and a set of simulation studies on the model. Copyright , Wiley-Blackwell.

Effects of Free Choice Among Public Schools

- Review of Economic Studies---2010---Victor Lavy

In this paper, I investigate the impact of a programme in Tel-Aviv, Israel, that terminated an existing interdistrict busing integration programme and allowed students free choice among public schools. The identification is based on difference-in-differences and regression discontinuity designs that yield various alternative comparison groups drawn from untreated tangent neighbourhoods and adjacent cities. Across identification methods and comparison groups, the results consistently suggest that choice significantly reduces the drop-out rate and increases the cognitive achievements of high-school students. It also improves behavioural outcomes such as teacher-student relationships and students' social acclimation and satisfaction at school, and reduces the level of violence and classroom disruption. Copyright , Wiley-Blackwell.

Accounting for Incomplete Pass-Through

- Review of Economic Studies---2010---Emi Nakamura,Dawit Zerom

Recent theoretical work has suggested a number of potentially important factors in causing incomplete pass-through of exchange rates to prices, including markup adjustment, local costs and barriers to price adjustment. We empirically analyse the determinants of incomplete pass-through in the coffee industry. The observed pass-through in this industry replicates key features of pass-through documented in aggregate data: prices respond sluggishly and incompletely to changes in costs. We use microdata on sales and prices to uncover the role of markup adjustment, local costs and barriers to price adjustment in determining incomplete pass-through using a structural oligopoly model that nests all three potential factors. The implied pricing model explains the main dynamic features of short and long-run pass-through. Local costs reduce long-run pass-through (after six quarters) by 59% relative to a Constant Elasticity of Substitution benchmark. Markup adjustment reduces pass-through by an additional 33%, where the extent of markup adjustment depends on the estimated "super-elasticity" of demand. The estimated menu costs are small (0.23% of revenue) and have a negligible effect on long-run pass-through but are quantitatively successful in explaining the delayed response of prices to costs. We find that delayed pass-through in the coffee industry occurs almost entirely at the wholesale rather than the retail level. Copyright , Wiley-Blackwell.

Social Incentives in the Workplace

- Review of Economic Studies---2010---Oriana Bandiera,Iwan Barankay,Imran Rasul

We present evidence on social incentives in the workplace, namely on whether workers' behaviour is affected by the presence of those they are socially tied to, even in settings where there are no externalities among workers due to either the production technology or the compensation scheme in place. To do so, we combine data on individual worker productivity from a firm's personnel records with information on each worker's social network of friends in the firm. We find that compared to when she has no social ties with her coworkers, a given worker's productivity is significantly higher when she works alongside friends who are more able than her, and significantly lower when she works with friends who are less able than her. As workers are paid piece rates based on individual productivity, social incentives can be quantified in monetary terms and are such that (i) workers who are more able than their friends are willing to exert less effort and forgo 10% of their earnings; (ii) workers who have at least one friend who is more able than themselves are willing to increase their effort and hence productivity by 10%. The distribution of worker ability is such that the net effect of social incentives on the firm's aggregate performance is positive. The results suggest that firms can exploit social incentives as an alternative to monetary incentives to motivate workers. Copyright , Wiley-Blackwell.

Strategic Voting over Strategic Proposals

- Review of Economic Studies---2010---Philip Bond,Hülya Eraslan

Prior research on "strategic voting" has reached the conclusion that unanimity rule is uniquely bad: it results in destruction of information, and hence makes voters worse off. We show that this conclusion depends critically on the assumption that the issue being voted on is exogenous, that is, independent of the voting rule used. We depart from the existing literature by endogenizing the proposal that is put to a vote, and establish that under many circumstances unanimity rule makes voters better off. Moreover, in some cases unanimity rule also makes the proposer better off, even when he has diametrically opposing preferences. In this case, unanimity is the Pareto dominant voting rule. Voters prefer unanimity rule because it induces the proposing individual to make a more attractive proposal. The proposing individual prefers unanimity rule because the acceptance probabilities for moderate proposals are higher. We apply our results to jury trials and debt restructuring. Copyright , Wiley-Blackwell.

Generalized Non-Parametric Deconvolution with an Application to Earnings Dynamics

- Review of Economic Studies---2010---Stéphane Bonhomme,Jean-Marc Robin

In this paper, we construct a non-parametric estimator of the distributions of latent factors in linear independent multi-factor models under the assumption that factor loadings are known. Our approach allows estimation of the distributions of up to L(L+ 1)/2 factors given L measurements. The estimator uses empirical characteristic functions, like many available deconvolution estimators. We show that it is consistent, and derive asymptotic convergence rates. Monte Carlo simulations show good finite-sample performance, less so if distributions are highly skewed or leptokurtic. We finally apply the generalized deconvolution procedure to decompose individual log earnings from the panel study of income dynamics (PSID) into permanent and transitory components. Copyright , Wiley-Blackwell.

Endowments, Output, and the Bias of Directed Innovation

- Review of Economic Studies---2010---Bernardo S. Blum

In this paper, I ask the question: Does the output-mix of countries change in response to changes in factor endowments? If so: How long does it take? Using data on capital, as well as skilled and unskilled labour employed in three-digit International Standard Industrial Classification (ISIC) manufacturing industries for a sample of 27 developing and developed countries over the 1973--1990 period, I find that the output-mix of countries does not change in response to endowment changes, even after 15 years. This answer raises another question: How then do countries absorb changes in factor endowments? The data show that in both the short and long runs, an increase in the supply of a production factor reduces its rate of return and makes it more intensively used in all sectors of the economy: changes in production techniques. In the long run, the point estimate is that the reduction in the rate of return is more than 50% larger than in the short run. This is consistent with induced innovations being predominantly biased towards the scarce factor. Copyright , Wiley-Blackwell.

The Flat Rental Puzzle

- Review of Economic Studies---2010---Sungjin Cho,John Rust

Why is the price of renting an automobile "flat" as a function of its age or odometer value? Specifically, why is it that car rental companies do not offer customers the option of renting older cars at a discount, instead of offering only relatively new cars at full price? We also tackle a related puzzle: why do car rental companies trade-in their vehicles so early? Most US companies purchase brand new rental cars and replace them after 2 years or when their odometer exceeds 34,000 km. That is a very costly strategy due to the well-known by rapid depreciation in used car prices. We show that in a competitive rental market, prices are a declining function of odometer and cars are rented over their full economic lifespan. Our solution to these puzzles is that actual rental markets are not fully competitive and firms may be behaving suboptimally. We provide a case study of a large car rental company that provided us access to its operating data. We develop a model of the company's operations that predicts that the company can significantly increase its profits by keeping its rental cars twice as long as it currently does, discounting the rental prices of older vehicles to induce its customers to rent them. The company undertook an experiment to test our model's predictions. We report initial findings from this experiment which involved over 4500 rentals of over 500 cars in 4 locations over a 5-month period. The results are consistent with the predictions of our model, and suggest that a properly chosen declining rental price function can increase overall revenues. Profits also increase significantly, since doubling the holding period of rental cars cuts discounted replacement costs by nearly 40%. Copyright , Wiley-Blackwell.

Service Offshoring and White-Collar Employment

- Review of Economic Studies---2010---Rosario Crinò

This paper empirically studies the effects of service offshoring on white-collar employment, using data for more than 100 US occupations over the period 1997--2006. A model of firm behaviour based on separability allows derivation of the labour demand elasticity with respect to service offshoring for each occupation. Estimation is performed with quasi-maximum likelihood, to account for high degrees of censoring in the employment variable. The estimated elasticities are then related to proxies for the skill level and the degree of tradability of the occupations. Results suggest that service offshoring is skill-biased, because it increases employment in more skilled occupations relative to less skilled occupations. At a given skill level, however, service offshoring penalizes tradable occupations relative to non-tradable occupations. Copyright , Wiley-Blackwell.

Private Information, Wage Bargaining and Employment Fluctuations

- Review of Economic Studies---2010---John Kennan

Shimer (2005) pointed out that although we have a satisfactory theory of why some workers are unemployed at any given time, we don't know why the number of unemployed workers varies so much over time. The basic Mortensen--Pissarides model does not generate nearly enough volatility in unemployment for plausible parameter values. This paper extends the Mortensen--Pissarides model to allow for informational rents. Productivity is subject to publicly observed aggregate shocks, and to idiosyncratic shocks that are seen only by the employer. It is shown that there is a unique equilibrium, provided that the idiosyncratic shocks are not too large. The main result is that small fluctuations in productivity that are privately observed by employers can give rise to a kind of wage stickiness in equilibrium, and the informational rents associated with this stickiness are sufficient to generate relatively large unemployment fluctuations. Copyright , Wiley-Blackwell.

Structural Vector Autoregressions: Theory of Identification and Algorithms for Inference

- Review of Economic Studies---2010---Juan F Rubio-Ramirez,Daniel Waggoner,Tao Zha

Structural vector autoregressions (SVARs) are widely used for policy analysis and to provide stylized facts for dynamic stochastic general equilibrium (DSGE) models; yet no workable rank conditions to ascertain whether an SVAR is globally identified have been established. Moreover, when nonlinear identifying restrictions are used, no efficient algorithms exist for small-sample estimation and inference. This paper makes four contributions towards filling these important gaps in the literature. First, we establish general rank conditions for global identification of both identified and exactly identified models. These rank conditions are sufficient for general identification and are necessary and sufficient for exact identification. Second, we show that these conditions can be easily implemented and that they apply to a wide class of identifying restrictions, including linear and certain nonlinear restrictions. Third, we show that the rank condition for exactly identified models amounts to a straightforward counting exercise. Fourth, we develop efficient algorithms for small-sample estimation and inference, especially for SVARs with nonlinear restrictions. Copyright , Wiley-Blackwell.

From Pigou to Extended Liability: On the Optimal Taxation of Externalities Under Imperfect Financial Markets

- Review of Economic Studies---2010---Jean Tirole

Pigovian taxation of externalities has limited appeal if the tortfeaser has insufficient resources to pay the damage when it occurs. To defend Pigovian taxation in the presence of judgement-proof agents, its proponents point at the many institutions extending liability to third parties. Yet little is known about the validity of Pigou's analysis in this context. The paper analyses the costs and benefits of extended liability and investigates whether full internalization is called for in the presence of agency costs between potential tortfeasers and providers of guarantees. Its contribution is two-fold. It first shows that the better the firms' corporate governance and the stronger their balance sheet, the more closely taxes should track the corresponding externality. It then develops the first analysis of extended liability when guarantors themselves may be judgement-proof, and the extension of liability may give rise to further externalities. Relatedly, it derives the curvature of the optimal taxation of externalities in a multi-plant firm. Copyright , Wiley-Blackwell.

The Gambler's and Hot-Hand Fallacies: Theory and Applications

- Review of Economic Studies---2010---Matthew Rabin,Dimitri Vayanos

We develop a model of the gambler's fallacy--the mistaken belief that random sequences should exhibit systematic reversals. We show that an individual who holds this belief and observes a sequence of signals can exaggerate the magnitude of changes in an underlying state but underestimate their duration. When the state is constant, and so signals are i.i.d., the individual can predict that long streaks of similar signals will continue--a hot-hand fallacy. When signals are serially correlated, the individual typically under-reacts to short streaks, over-reacts to longer ones, and under-reacts to very long ones. Our model has implications for a number of puzzles in finance, e.g. the active-fund and fund-flow puzzles, and the presence of momentum and reversal in asset returns. Copyright , Wiley-Blackwell.

Information Acquisition and Under-Diversification

- Review of Economic Studies---2010---Stijn Van Nieuwerburgh,Laura Veldkamp

If an investor wants to form a portfolio of risky assets and can exert effort to collect information on the future value of these assets before he invests, which assets should he learn about? The best assets to acquire information about are ones the investor expects to hold. But the assets the investor holds depend on the information he observes. We build a framework to solve jointly for investment and information choices, with general preferences and information cost functions. Although the optimal research strategies depend on preferences and costs, the main result is that the investor who can first collect information systematically deviates from holding a diversified portfolio. Information acquisition can rationalize investing in a diversified fund and a concentrated set of assets, an allocation often observed, but usually deemed anomalous. Copyright , Wiley-Blackwell.

Politicians, Taxes and Debt

- Review of Economic Studies---2010---Pierre Yared

The standard analysis of the efficient management of income taxes and debt assumes a benevolent government and ignores potential distortions arising from rent-seeking politicians. This paper departs from this framework by assuming that a rent-seeking politician chooses policies. If the politician chooses extractive policies, citizens throw him out of power. We analyse the efficient sustainable equilibrium. Unlike in the standard economy, temporary economic shocks generate volatile and persistent changes in taxes along the equilibrium path. This serves to optimally limit rent-seeking by the politician and to optimally generate support for the politician from the citizens. Taxes resembling those of the benevolent government are very costly since the government over-saves and resources are wasted on rents. Political distortions thus cause the complete debt market to behave as if it were incomplete. However, in contrast to an incomplete market economy, in the long run, taxes do not converge to zero, and under some conditions, they resemble taxes under a benevolent government. Copyright , Wiley-Blackwell.

Jane Martin: Special Tribute

- Review of Economic Studies---2010---Mark Armstrong

2010

Dynamic Matching and Evolving Reputations

- Review of Economic Studies---2010---Axel Anderson,Lones Smith

This paper introduces a general model of matching that includes evolving public Bayesian reputations and stochastic production. Despite productive complementarity, assortative matching robustly fails for high discount factors, unlike in Becker (1973) . This failure holds around the highest (lowest) reputation agents for "high skill" ("low skill") technologies. We find that matches of likes eventually dissolve. In another lifecycle finding, young workers are paid less than their marginal product, and old workers more. Also, wages rise with tenure but need not reflect marginal products: information rents produce non-monotone and discontinuous wage profiles. Copyright , Wiley-Blackwell.

Competitive Non-linear Pricing and Bundling

- Review of Economic Studies---2010---Mark Armstrong,John Vickers

We examine competitive non-linear pricing in a model in which consumers have heterogeneous and elastic demands and can buy from more than one supplier. It is an equilibrium for firms to offer a menu of efficient two-part tariffs, where the discount for one-stop shopping is such that the elasticity of "demand for two-stop shopping" equals two. Compared with linear pricing, non-linear pricing tends to raise profit but harm consumers when: (i) demand is elastic, (ii) there is heterogeneity in consumer demand, (iii) consumers incur shopping costs when buying from more than one firm, and (iv) a consumer's brand preference for one product is correlated with her brand preference for another product. Non-linear pricing is more likely to lead to welfare gains when (iii) and (iv) hold, but (ii) does not. Copyright , Wiley-Blackwell.

The Swing Voter's Curse in the Laboratory

- Review of Economic Studies---2010---Marco Battaglini,Rebecca B. Morton,Thomas Palfrey

This paper reports the first laboratory study of the swing voter's curse and provides insights on the larger theoretical and empirical literature on "pivotal voter" models. Our experiment controls for different information levels of voters, as well as the size of the electorate, the distribution of preferences and other theoretically relevant parameters. The design varies the share of partisan voters and the prior belief about a payoff relevant state of the world. Our results support the equilibrium predictions of the Feddersen-Pesendorfer model. The voters act as if they are aware of the swing voter's curse and adjust their behaviour to compensate. While the compensation is not complete and there is some heterogeneity in individual behaviour, we find that aggregate outcomes, such as efficiency, turnout and margin of victory, closely track the theoretical predictions. Copyright , Wiley-Blackwell.

Managerial Skills Acquisition and the Theory of Economic Development

- Review of Economic Studies---2010---Paul Beaudry,Patrick Francois

Why don't all countries converge rapidly to the use of most efficient or best practice technologies? Micro level studies suggest managerial skills play a key role in the adoption of modern technologies. In this paper we model the interactive process between on-the-job managerial skill acquisition and the adoption of modern technology. We use the model to illustrate why some countries develop managerial skills quickly and adopt best practice technologies, while others stay backwards. The model also explains why managers will not migrate from rich countries to poor countries, as would be needed to generate convergence. Finally we show why standard growth accounting exercises will incorrectly attribute a large proportion of managerial skills' contribution to total factor productivity and we quantify the importance of this bias. Copyright , Wiley-Blackwell.

Non-Parametric Identification and Estimation of Truncated Regression Models

- Review of Economic Studies---2010---Songnian Chen

In this paper, we consider non-parametric identification and estimation of truncated regression models in both cross-sectional and panel data settings. For the cross-sectional case, Lewbel and Linton (2002) considered non-parametric identification and estimation through continuous variation under a log-concavity condition on the error distribution. We obtain non-parametric identification under weaker conditions. In particular, we obtain non-parametric identification through discrete variation under a non-periodicity condition on the hazard function of the error distribution. Furthermore, we show that the presence of continuous regressors may lead to stronger identification results. Our non-parametric estimator is shown to be consistent and asymptotically normal, and outperforms that of Lewbel and Linton (2002) in a simulation study. For the panel data setting, we provide the first systematic treatment of non-parametric identification and estimation of the truncated panel data model with fixed effects by extending our treatment of the cross-sectional case. We also consider various other extensions. Copyright , Wiley-Blackwell.

Millian Efficiency with Endogenous Fertility

- Review of Economic Studies---2010---J. Ignacio Conde-Ruiz,Eduardo Giménez,Mikel Pérez-Nievas

Should governments implement policies that affect fertility decisions on efficiency grounds? What is the correct notion of efficiency to use? To address these issues, this paper develops an extension of the notion of Pareto efficiency, referred to as Millian efficiency, to evaluate symmetric allocations in an overlapping generations setting with endogenous fertility. This extension is based on preferences of those agents who are actually alive, and exclusively allows for welfare comparisons of symmetric allocations. First, we provide necessary and sufficient conditions to determine whether an allocation is Millian efficient or not, and we show that the sufficient conditions for dynamic efficiency offered by Cass (1972) and Balasko and Shell (1980) cannot be directly applied when fertility decisions are endogenous. Second, we characterize Millian efficient allocations as the equilibria of a decentralized price mechanism, and we present a sufficient condition for dynamic efficiency that uses the sequence of prices associated to such decentralized equilibria. Finally, we analyse how intergenerational policies should be designed to restore efficiency and achieve net welfare gains in two different settings in which markets yield inefficient allocations: dynamic inefficiencies and financial market incompleteness regarding human capital. In the former, a pay-as-you-go social security system eliminates dynamic inefficiencies, provided pensions are explicitly linked with fertility decisions. In the latter, a specific link between social security and public education becomes a necessary condition for Millian efficiency. Copyright , Wiley-Blackwell.

Multi-Product Firms and Flexible Manufacturing in the Global Economy

- Review of Economic Studies---2010---Carsten Eckel,J. Peter Neary

We present a new model of multi-product firms (MPFs) and flexible manufacturing, and explore its implications in partial and general oligopolistic equilibrium. Globalization affects the scale and scope (or intensive margin and intra-firm extensive margin) of MPFs through a competition effect and a demand effect. The model highlights a new source of gains from trade: productivity increases as firms become "leaner and meaner", concentrating on their core competence; but also a new source of losses from trade: product variety may fall. Our results also hold under free entry, which allows in addition for adjustment along the traditional inter-firm extensive margin. Copyright , Wiley-Blackwell.

Network Games

- Review of Economic Studies---2010---Andrea Galeotti,Sanjeev Goyal,Matthew Jackson,Fernando Vega-Redondo,Leeat Yariv

In contexts ranging from public goods provision to information collection, a player's well-being depends on his or her own action as well as on the actions taken by his or her neighbours. We provide a framework to analyse such strategic interactions when neighbourhood structure, modelled in terms of an underlying network of connections, affects payoffs. In our framework, individuals are partially informed about the structure of the social network. The introduction of incomplete information allows us to provide general results characterizing how the network structure, an individual's position within the network, the nature of games (strategic substitutes vs. complements and positive vs. negative externalities) and the level of information shape individual behaviour and payoffs. Copyright , Wiley-Blackwell.

On-the-Job Search, Mismatch and Efficiency *

- Review of Economic Studies---2010---Pieter Gautier,C. N. Teulings,Aico van Vuuren

This paper characterizes the equilibrium for a large class of search models with two-sided heterogeneity and on-the-job search. Besides the well-known congestion externalities, we show that on-the-job search in combination with monopsonistic wage setting without commitment creates a "business-stealing" externality.

In the absence of congestion effects, this leads to excessive vacancy creation. Under wage setting with commitment this externality is absent because when posting a wage, firms take into account the expected productivity of future workers in their current jobs. If firms are able to make and respond to counteroffers, then they will not have to pay no-quit premia and this also leads to excessive vacancy creation. Copyright , Wiley-Blackwell.

Pairwise-Difference Estimation of a Dynamic Optimization Model

- Review of Economic Studies---2010---Han Hong,Matthew Shum

We develop a new estimation methodology for dynamic optimization models with unobserved shocks and deterministic accumulation of the observed state variables. Investment models are an important example of such models. Our pairwise-difference approach exploits two common features of these models: (1) the monotonicity of the agent's decision (policy) function in the shocks, conditional on the observed state variables; and (2) the state-contingent nature of optimal decision making which implies that, conditional on the observed state variables, the variation in observed choices across agents must be due to randomness in the shocks across agents. We illustrate our procedure by estimating a dynamic trading model for the milk production quota market in Ontario, Canada. Copyright , Wiley-Blackwell.

Optimal Monetary Policy with Uncertain Fundamentals and Dispersed Information *

- Review of Economic Studies---2010---Guido Lorenzoni

This paper studies optimal monetary policy in a model where aggregate fluctuations are driven by the private sector's uncertainty about the economy's fundamentals. Information on aggregate productivity is dispersed across agents and there are two aggregate shocks: a standard productivity shock and a "noise shock" affecting public beliefs about aggregate productivity. Neither the central bank nor individual agents can distinguish the two shocks when they are realized. Despite the lack of superior information, monetary policy can affect the economy's relative response to the two shocks. As time passes, better information on past fundamentals becomes available. The central bank can then adopt a backward-looking policy rule, based on more precise information about past shocks. By announcing its response to future information, the central bank can influence the expected real interest rate faced by forward-looking consumers with different beliefs and thus affect the equilibrium allocation. If the announced future response is sufficiently aggressive, the central bank can completely eliminate the effect of noise shocks. However, this policy is typically suboptimal, as it leads to an excessively compressed distribution of relative prices. The optimal monetary policy balances the benefits of aggregate stabilization with the costs in terms of cross-sectional efficiency. Copyright , Wiley-Blackwell.

Quantile Maximization in Decision Theory *

- Review of Economic Studies---2010---Marzena Rostek

This paper introduces a model of preferences, in which, given beliefs about uncertain outcomes, an individual evaluates an action by a quantile of the induced distribution. The choice rule of Quantile Maximization unifies maxmin and maxmax as maximizing the lowest and the highest quantiles of beliefs distributions, respectively, and offers a family of less extreme preferences. Taking preferences over acts as a primitive, we axiomatize Quantile Maximization in a Savage setting. Our axiomatization also provides a novel derivation of subjective beliefs, which demonstrates that neither the monotonicity nor the continuity conditions assumed in the literature are essential for probabilistic sophistication. We characterize preferences of quantile maximizers towards downside risk. We discuss how the distinct properties of the model, robustness and ordinality, can be useful in studying choice behaviour for categorical variables and in economic policy design. We also offer applications to poll design and insurance problems. Copyright , Wiley-Blackwell.

Dynamic Kidney Exchange

- Review of Economic Studies---2010---Utku Unver

We study how barter exchanges should be conducted through a centralized mechanism in a dynamically evolving agent pool with time- and compatibility-based preferences. We derive the dynamically efficient two-way and multi-way exchange mechanisms that maximize total discounted exchange surplus. Recently several live-donor kidney exchange programmes were established to swap incompatible donors of end-stage kidney disease patients. Since kidney exchange can be modelled as a special instance of our more general model, dynamically efficient kidney exchange mechanisms are derived as corollaries. We make policy recommendations using simulations. Copyright , Wiley-Blackwell.