FRIDAY, May 26, 16:30 – 18:00

DV_C1. Macroeconomics 3. Room: *Pere i Joan Coromines (IEC)*

AUSTERITY TO SAVE THE BANKS? A QUANTITATIVE MODEL OF SOVEREIGN DEFAULT WITH ENDOGENOUS DEFAULT COSTS AND A FINANCIAL SECTOR

Dominik Thaler
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Abstract

Why do states repay their debt? This paper develops a quantitative model of sovereign default with endogenous default costs to propose a novel answer to this question. In the model, the government ex ante has an incentive to borrow internationally due to a difference between the world interest rate and the domestic return on capital, which arises from a friction in the domestic banking sector. Since this sector is exposed to sovereign debt, sovereign default causes losses for the banks, which translate into a financial crisis. When deciding upon repayment ex post, the government trades these costs off against the advantage of not repaying international investors. Besides replicating cyclical moments, the model is able to generate not only output costs of a realistic magnitude, but also endogenously predicts that default is followed by a period during which no new foreign lending takes place. The duration of this period is in line with empirical estimates.

OPTIMAL DEBT MATURITY AND FIRM INVESTMENT

Joachim Jungherr
Institut d'Anàlisi Econòmica (CSIC), MOVE, and Barcelona GSE
Immo Schott
Université de Montréal and CIREQ

Abstract

This paper introduces a maturity choice to the standard model of firm financing and investment. Long-term debt renders the optimal firm policy time-inconsistent. Lack of commitment gives rise to debt dilution. This problem becomes more severe during downturns. We show that cyclical debt dilution generates the observed counter-cyclical behavior of default, bond spreads, leverage, and debt maturity. It also generates the pro-cyclical term structure of corporate bond spreads. Debt dilution renders the equilibrium outcome constrained-inefficient: credit spreads are too high and investment is too low. In two policy experiments we find the following: (1) an outright ban of long-term debt improves welfare in our model economy, and (2.) debt dilution accounts for 84% of the credit spread and 25% of the welfare gap with respect to the first best allocation.

Keywords: Firm Financing, Investment, Debt Maturity, Credit Spreads, Debt Dilution.
JEL Classifications: E22, E32, E44, G32.

BANK CAPITAL REDUX: SOLVENCY, LIQUIDITY, AND CRISIS?

Òscar Jordà
Federal Reserve Bank of San Francisco; and Department of Economics, University of California, Davis
Björn Richter
Department of Economics, University of Bonn
Moritz Schularick
Department of Economics, University of Bonn
Alan M. Taylor
Department of Economics and Graduate School of Management, University of California, Davis; NBER; and CEPR

Abstract

Higher capital ratios are unlikely to prevent the next financial crisis. This is empirically true both for the pre-WW2 and the post-WW2 periods, and holds both within and between countries. We reach this startling conclusion using newly collected data on the liability side of banks' balance sheets. Data coverage extends to 17 advanced economies from 1870 to 2013. A solvency indicator, the capital ratio has no value as a crisis predictor; but we find that liquidity indicators such as the loan-to-deposit ratio and the share of non-deposit funding do signal financial fragility, although they add little predictive power relative to that of credit growth on the asset side of the balance sheet. However, higher capital buffers have social benefits in terms of macro-stability: recoveries from financial crisis recessions are much quicker with higher bank capital.

Keywords: financial crises, crisis prediction, local projections, bank liabilities, capital ratio.
JEL classification: E44, G01, G21, N20.

<u>DV_C2. Monetary Economics 3</u>. Room: *Nicolau d'Olwer (IEC)*

AGGREGATE DEMAND EXTERNALITIES IN A GLOBAL LIQUIDITY TRAP

Luca Fornaro
CREI, Universitat Pompeu Fabra, Barcelona GSE and CEPR
Federica Romei
CREI, Universitat Pompeu Fabra, Barcelona GSE and CEPR

Abstract

A recent literature has suggested that macroprudential policies can act as a second-best stabilization tool when monetary policy is constrained by the zero lower bound. In this paper, we show that macroprudential policies can backfire, once their international dimension is taken into account. This happens because by implementing macroprudential policies countries increase the global supply of savings, putting downward pressure on the world interest rate and exacerbating the global liquidity trap. This paper studies optimal financial market interventions during a persistent global liquidity trap. We provide a tractable multi-country framework of an imperfectly financially integrated world, in which equilibrium interest rates are low and monetary policy is occasionally con-strained by the zero lower bound. Idiosyncratic shocks generate capital flows and asymmetric liquidity traps across countries. Due to a domestic aggregate demand externality, it is optimal for governments to implement countercyclical macroprudential policies, taxing borrowing in good times, as a precaution against the risk of a future liquidity trap triggered by a negative shock. The key insight of the paper is that this policy is inefficient from a global perspective, because it depresses global rates and deepens the recession in the countries currently stuck in a liquidity trap. This international aggregate demand externality points toward the need for international cooperation in the design of financial market interventions. Indeed, under the cooperative optimal financial policy countries internalize the fact that a stronger demand for borrowing and consumption from countries at full employment sustains global rates, reducing the recession in liquidity trap economies.

JEL Classification: E32, E44, E52, F41, F42.

MACROPRUDENTIAL POLICIES IN A LOW INTEREST-RATE ENVIRONMENT

Margarita Rubio
University of Nottingham
Fang Yao
Reserve Bank of New Zealand

Abstract

This paper analyzes the role of macroprudential policies in a low interest-rate environment, in which monetary policy can be occasionally restricted by a lower bound. We study this issue by using a DSGE model with housing and collateral constraints. The macroprudential instrument is a loan-to-value ratio (LTV) rule. We find that, when the steady-state interest rate is high, the two policies can work independently with different instruments and separate objectives. When the steady-state interest rate is low, however, monetary policy hits more frequently the zero lower bound and the macroprudential authority can act as a complementary macro-financial stabilizer for both real and financial cycles.

Keywords: Macroprudential, Monetary Policy, Zero Lower Bound, Collateral Constraint, Financial Stability.
JEL Classification: E32, E44, E58.

NARROW BANKING WITH MODERN DEPOSITORY INSTITUTIONS:
IS THERE A REASON TO PANIC?

Hugo Rodríguez Mendizábal
Institut d'Anàlisi Econòmica (CSIC), MOVE and Barcelona GSE

Abstract

What would be the effect of imposing a 100 percent reserve requirement to depository institutions? This paper contends that reserves do not compete with loans on the asset side of bank's balance sheets. Thus, they only affect liquidity provision by banks indirectly through their impact on the cost of loan and deposit creation. This cost could be driven to zero if, as the Eurosystem does, central banks remunerates required reserves at the same rate of their refinancing operations. The paper argues that the crucial constraint imposed by a fully backed banking system is collateral availability by depository institutions.

Keywords: Narrow Banking, Endogenous Money, Interbank Market, Bank Solvency, Liquidity, Monetary Policy.
JEL Classification: E4, E5, G21.

<u>DV_C3. Industrial Organization 1.</u> Room: *Pi i Sunyer (IEC)*

THE EFFECT OF ENTRY RESTRICTIONS ON PRICE.
EVIDENCE FROM THE RETAIL GASOLINE MARKET

Valeria Bernardo
GiM – IREA, Universitat de Barcelona

Abstract

I exploit a change in Spanish regulations to test the effect of entry restrictions on retail gasoline equilibrium prices. In February 2013, a Central Government reform allowed gasoline stations to operate in industrial and commercial areas. This deregulation led to a high number of new market entrants over the following two years in these newly designated free entry areas. By isolating markets exposed to entry and markets not affected by new entrants, and using a difference-in-difference approach, gasoline retail prices are found to fall on average by 1.82% in the free entry areas. This result is economically significant, representing one fifth of the average retail margin. Moreover, if adopted by every gasoline station, the price reduction would imply savings in gasoline expenditure alone of around 274 million euros per year. Additionally, the results show that the equilibrium price reduction is greatest when the entrant is unbranded and that the effect decreases with the number of entrants and over time.

Keywords: Gasoline Retail Market; Entry Restrictions; Price Competition; Public Policy Evaluation; Difference In Difference.
JEL Classification: L71; L51; D43.

CONSUMERS' COSTLY RESPONSES TO PRODUCT SAFETY THREATS

Rosa Ferrer
Universitat Pompeu Fabra and Barcelona GSE
Helena Perrone
Universitat Pompeu Fabra and Barcelona GSE

Abstract

The main goal of this study is to determine how the different components of preferences condition consumers' reactions to safety threats in markets with no close substitutes for the unsafe product. Using data from an ideal setting related to the mad cow disease epidemic, we estimate a full demand model for meat and estimate consumers' preference parameters over nutrients, safety, and taste. We find that substituting away from the threatened product (beef and veal) is costly for consumers in terms of forgone nutrients, especially iron, and taste. Counterfactuals quantify the observed decrease in demand for beef and veal following the safety threat event, which is driven by consumers updating their perceptions of this meat category's safety. We also find that the consumer demand response is heterogeneous and limited by their tastes.

Keywords: Demand Estimation, Scanner Data, Utility Parameters, Nutritional Preferences.

ESTIMATING THE STRUCTURE OF SOCIAL INTERACTIONS USING PANEL DATA

Elena Manresa
Applied Economics, MIT Sloan

Abstract

I consider the problem of quantifying externalities in settings in which an outcome depends on own characteristics and on the characteristics of other individuals. In contrast to existing approaches, which require a priori knowledge of who interacts with whom, I propose a method that estimates both the structure of interactions and spillover effects using panel data. The method is useful when the structure is stable and few individuals or groups of individuals generate spillovers of a different magnitude from the rest. I introduce the Pooled Lasso estimator, a panel data counter part of the Lasso estimator for high-dimensional, sparse random coefficients models. While spillover effects are estimated at the rate $\sqrt{s\ log\ N/T}$, average marginal effects, which can be interpreted as policy parameters, are estimated at the rate $\sqrt{s\ log\ N/(NT)}$, under mild cross-sectional dependence, even under imperfect model selection. In addition, I also introduce the Double Pooled Lasso estimator, which makes use of the double selection procedure proposed in Belloni, Chernozhukov, and Hansen (2014) to ensure that common parameters achieve the optimal rate of convergence, $\sqrt{1/(NT)}$. I apply this methodology to study R&D spillovers in productivity using the NBER matched Compustat-USPTO firm data. I find evidence that throughout the period 1980-2001, establishments engaged in the commercialization of the internet were able to generate productivity gains for the rest of the firms in the economy. In addition, I provide evidence that spillovers arising from small, R&D-intensive firms are underestimated when quantified using only patent data.

Keywords: Social Interactions, Spillovers, Networks, Panel Data, Random Coefficients, Sparse High-Dimensional Models, LASSO, Model Selection, R&D Spillovers.
JEL Classification: C23.

<u>DV_C4. Environmental Economics. Ecological Economics.</u> Room: *Puig i Cadafalch (IEC)*

CLIMATE CHANGE MITIGATION AND THE ROLE OF TECHNOLOGY CHANGE: IMPACT ON SELECTED HEADLINE TARGETS OF EUROPE'S 2020 CLIMATE AND ENERGY PACKAGE

Germà Bel

Department of Econometrics, Statistics and Applied Economics, Universitat de Barcelona

Stephan Joseph

Department of Econometrics, Statistics and Applied Economics, Universitat de Barcelona

Abstract

The European Union launched a set of policies as part of its 2020 climate and energy package aimed at meeting its 20/20/20 headline targets for smart, sustainable and inclusive growth. This paper evaluates how successful new-to-the-market climate change mitigation technologies (CCMT) are in helping EU member states (MS) to reach these goals and, furthermore, whether there are differences between sectors subject to EU-wide polices. To do so, we seek to relate CCMT patent counts to two specific headline targets: (1) achieving 20% of gross final energy consumption from renewables, and (2) achieving a 20% increase in energy efficiency. Our results provide the first ex-post evaluation of the effectiveness of these technologies for combating climate change. Moreover, our sectoral impact assessment points to significant differences in the way in which these technologies contribute to policy goals across sectors.

Keywords: Environmental Policy; Climate Change; Technological Change; Patent Count Data

BORDER CARBON ADJUSTMENTS BASED ON AVOIDED EMISSIONS: ADDRESSING THE DESIGN CHALLENGE

Paola Rocchi

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Mònica Serrano

BEAT, Department of Economics, Faculty of Economics and Business, Universitat de Barcelona

Jordi Roca

BEAT, Department of Economics, Faculty of Economics and Business, Universitat de Barcelona

Iñaki Arto

Basque Centre for Climate Change

Abstract

Carbon pricing is an essential instrument to address climate change. However, international differences in carbon control policies may cause not only carbon leakage but also competiveness disadvantages. In this context, border carbon adjustments are a promising tool for discouraging these problems. But designing a real-world border carbon adjustment instrument implies to consider significant issues: the technical plausibility, the data-available feasibility, the risk of retaliation from developing countries and the compatibility with the World Trade Organization legal framework. There are today no conclusive answers about a proper design. In this paper we propose a carbon border tax (CBT) based on avoided emissions that tries to address the above challenges. The CBT on avoided emissions is applied at product not sector level and all international prices are deflated to guarantee that import 'like' goods received a similar treatment as domestic products. Using the WIOD, we simulate a CBT based on avoided emissions applied by the European Union, and we compare the results with a theoretically superior a CBT based on embodied emissions.

Key words: Carbon Border Tax, Avoided Emissions, Climate Change, Global Public Good, European Union, GHG Emissions.
JEL Classification: H23, Q54, Q56.

SPILLOVER EFFECTS OF GREEN TECHNOLOGY INVESTMENT IN THE FACE OF ENTRY

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Ana Espínola-Arredondo
School of Economic Sciences, Washington State University

Abstract

This paper analyzes an entry-deterrence model in which the incumbent decides whether to invest in research and development (R&D) that promotes clean technology. We consider the case in which the entrant could benefit from a technology spillover. We show that if the costs of R&D and the initial spillover are low, an increase in the spillover or probability of successful R&D increases the investment in R&D. In addition, higher levels of the spillover or probability of successful R&D make entry more attractive compared to a standard entry game. The results also suggest that if the spillover is low and/or pollution inflicts minor damage on the environment, no entry is socially optimal. Finally, from a policy perspective, when there is entry and pollution is present, the regulator should focus efforts on promoting technologies with a high probability of success instead of technologies with high spillover effects.

Keywords: Entry-Deterrence, Emission Fee, Research and Development, Spillover.
JEL Classification: H23, L12, O32, Q58.

<u>DV_C5. Economics of Conflicts. Negotiations</u>. Room: *Prat de la Riba (IEC)*

PARTY BANS, DETERRENCE OR BLACKLASH? EVIDENCE FROM THE BASQUE COUNTRY

Andreu Arenas
CORE, Université Catholique de Louvain

Abstract

This paper examines how counter-terrorist political repression influences the political preferences of the aggrieved constituency. Exploiting the finite and heterogeneous nature of the ban of Batasuna -the political wing of ETA- across municipalities, and using panel data on electoral outcomes and street terrorism episodes in the Basque Country, I find that a longer ban leads to large and persistent losses in electoral support for Batasuna in local elections, driven both by a lower number of electoral lists and by less electoral success. This effect has spill-overs to support in regional elections, which persist after accounting for changes in local support. Extending the ban leads to a short-run spike in street violence by Batasuna's supporters, but it has no effects afterwards. Instrumental Variables estimates based on the rule used by the public prosecutor to denounce local candidatures support the results.

READING BETWEEN THE LINES:
PREDICTION OF POLITICAL VIOLENCE USING NEWSPAPER TEXT

Hannes Mueller
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Christopher Rauh
University of Cambridge and INET Institute

Abstract

This article provides a new methodology to predict armed conflict by using newspaper text. Through machine learning, vast quantities of newspaper text are reduced to interpretable topics. We propose the use of the within-country variation of these topics to predict the timing of conflict. This allows us to avoid the tendency of predicting conflict only in countries where it occurred before. We show that the within-country variation of topics is an extremely robust predictor of conflict and becomes particularly useful when new conflict risks arise. Two aspects seem to be responsible for these features. Topics provide depth because they consist of changing, long lists of terms which makes them able to capture the changing context of conflict. At the same time topics provide width because they summarize all text, including coverage of stabilizing factors.

Keywords: Conflict, Forecasting, Machine Learning, Panel Data, Topic Models, Latent Dirichlet Allocation.

A MODEL OF PROTESTS, REVOLUTION, AND INFORMATION

Salvador Barberà
MOVE, Universitat Autònoma de Barcelona and Barcelona GSE
Matthew O. Jackson
Department of Economics, Stanford University

Abstract

A population considering a revolt must participate in sufficient numbers to succeed. We study how their ability to coordinate is affected by their information. The effects of information are non-monotone: the population may coordinate on a revolt if there is very little information or if they know a lot about each other's preferences for change, but having each agent know about the willingness of a few others to revolt can actually make a revolt impossible. We also show that holding mass protests before a revolution can be an essential step in mobilizing a population. Protests provide costly signals of how many agents are willing to participate, while easier forms of communication (e.g., via social media) may fail to signal willingness to actively participate. Thus, although social media can enhance coordination, it may still be necessary to hold a protest before a revolution in order to measure the size of the population willing to revolt.

We also examine how having competing groups involved in a revolution can change its feasibility, as well as other extensions, such as what the minimal redistribution on the part of the government is in order to avoid a revolution, and the role of propaganda, homophily and networks, and counter-demonstrations.

Keywords: Revolution, demonstration, protests, strikes, Arab Spring
JEL Classification Codes: D74, D72, D71, D83, C72

<u>DV_C6. Public Economics 2.</u> Room: *Auditori (Residència d'Investigadors)*

PARTIAL TAX HARMONIZATION THROUGH INFRASTRUCTURE COORDINATION

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Departament d´Economia and CREIP, Universitat Rovira i Virgili
Bernd Theilen
Departament d´Economia and CREIP, Universitat Rovira i Virgili

Abstract

In this article we analyze the role that infrastructure coordination plays to in achieving partial tax harmonization in a coalition of asymmetric jurisdictions. We find that infrastructure coordination with different investment levels can facilitate partial tax harmonization between asymmetric jurisdictions when asymmetries are not too large. Furthermore, agreeing on a common investment level can be even more effective in facilitating partial tax harmonization between asymmetric juris-dictions. This result indicates that the EU structural funds policy which allows the convergence of infrastructure investments contributes to facilitating partial tax harmonization in the EU.

Keywords: Partial Tax Harmonization, Infrastructure Coordination, EU Structural Funds Policy.
JEL Classification: F15, F38, H20, H87.

PROFIT-SHARING AS TAX SAVING AND INCENTIVE DEVICE

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Abstract

The received theory of labor contract with unobservable effort and observable individual output mainly rests upon the principalagent paradigm. The proposed model tends to adapt this type of analysis to the case in which institutional constraints including social contribution rules and endogenous or legislated profit-sharing rates interfere with free contracting. It tends to formalize a situation in which profit-sharing has a double impact on the firm's objective through a social contribution saving effect and an incentive effect.

JEL classification: H3

TAX COMPETITION WITH LABOR MARKET FRICTIONS

Kangoh Lee
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Abstract
This paper studies tax competition for mobile capital with imperfect labor markets. Even with head taxes, capital may be still taxed or subsidized. In particular, when workers have a strong (weak) bargaining power over the wages, capital is subsidized (taxed). In addition, tax competition may result in too high or too low a tax rate on mobile capital, relative to the socially efficient level. Tax competition also may increase or decrease the unemployment rate, depending on the magnitude of the elasticity of the rate of filling vacancies in the labor market.

Key words: Mobile Capital; Capital Tax; Imperfect Labor Markets; Matching; Unemployment.
JEL Classification: H71, H72, H73.

DV_C7. Economics of Information. *Room: Sala de Reunions (Residència d'Investigadors)*

INFORMATION SPILLOVERS IN ASSET MARKETS WITH CORRELATED VALUES

Vladimir Asriyan
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William Fuchs
Haas School of Business, UC Berkeley
Brett Green
Haas School of Business, UC Berkeley

Abstract

We study information spillovers in a dynamic setting with correlated assets owned by privately-informed sellers. In the model, a trade of one asset can provide information about the value of other assets. Importantly, the information content of trading behavior is endogenously determined. We show that this endogeneity leads to multiple equilibria when assets are sufficiently correlated. The equilibria are ranked in terms of both trade volume and efficiency. The model has implications for policies targeting post-trade transparency. We show that introducing post-trade transparency can increase or decrease welfare and trading volume depending on the asset correlation, equilibrium being played, and the composition of market participants.

THE ENFORCEMENT OF MANDATORY DISCLOSURE RULES

Matthias Dahm
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Paula González
Department of Economics, Universidad Pablo de Olavide
Nicolás Porteiro
Department of Economics, Universidad Pablo de Olavide

Abstract

This paper examines the incentives of a firm to invest in information about the quality of its product and to disclose its findings. If the firm holds back information, it might be detected and fined. We show that optimal monitoring is determined by a trade-off. Stricter enforcement reduces the incentives for selective reporting but crowds out information search. Our model implies that (i) the probability of detection and the fine might be complements; (ii) the optimal monitoring policy does not necessarily eliminate selective reporting entirely; (iii) even when there is some selective reporting in equilibrium and more stringent monitoring is costless, increasing the probability of detection might not be beneficial; and (iv) when society values selectively reported information, the optimal fine might not be the largest possible fine.

Keywords: Strategic Information Transmission, Distrust Effect, Confidence Effect, Monitoring, Penalty, Fine, Sanction, Detection Probability.
JEL Classification: D82, L15.

MARKET POWER AND WELFARE IN ASYMMETRIC DIVISIBLE GOOD AUCTIONS

Carolina Manzano
Universitat Rovira i Virgili and CREIP
Xavier Vives
IESE Business School

Abstract
We analyze a divisible good uniform-price auction that features two groups each with a finite number of identical bidders. Equilibrium is unique, and the relative market power of a group increases with the precision of its private information but declines with its transaction costs. In line with empirical evidence, we find that an increase in transaction costs and/or a decrease in the precision of a bidding group´s information induces a strategic response from the other group, which thereafter attenuates its response to both private information and prices. A "stronger" bidding group -which has more precise private information, faces lower transaction costs, and is more oligopsonistic- has more market power and so will behave competitively only if it receives a higher per capita subsidy rate. When the strong group values the asset no less than the weak group, the expected deadweight loss increases with the quantity auctioned and also with the degree of payoff asymmetries. Market power and the deadweight loss may be negatively associated.

Keywords: Demand/Supply Schedule Competition, Private Information, Liquidity Auctions, Treasury Auctions, Electricity Auctions.
JEL Classification: D44, D82, G14, E58.

DV_C8. Contract Theory. Room: *Aula 0 (MACBA)*

CONSERVATION PROCUREMENT AUCTIONS WITH BIDIRECTIONAL EXTERNALITIES

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Ana Espínola-Arredondo
School of Economic Sciences, Washington State University
Félix Muñoz-García
School of Economic Sciences, Washington State University

Abstract

This study analyzes a conservation procurement auction with bidirectional externalities, that is, conservation output can affect the costs of individuals dedicated to market production, and vice versa. The procurer observes neither bidders´ conversation nor their market efficiency. We show that, under complete information, optimal output is lower with than without negative externalities, as the procurer needs to compensate landowners for their cost increase due to externalities. Under incomplete information, such reduction in optimal output is larger, since the procurer must now provide information rents for landowners to truthfully report both their conservation and market efficiency. We demonstrate that when conservation and market out-put generate externalities on each other, the above output inefficiencies are emphasized, but ameliorated if the procurer observes either conservation or market efficiency.

Keywords: Mechanism Design, Bidirectional Externalities, Conservation Procurement Auction.
JEL Classification: D44, D62, D82, Q15, Q51.

DYNAMIC NONMONETARY INCENTIVES

Daniel Bird
Eitan Berglas School of Economic
Alexander Frug
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Abstract
We study a principal-agent interaction where investments and rewards arrive stochastically over time, and are privately observed by the agent. Investments (costly for the agent, beneficial for the principal) can be concealed by the agent. Rewards (beneficial for the agent, costly for the principal) can be forbidden by the principal. We ask how rewards should be used and which investments incentivized. We identify the unique optimal mechanism and analyze the dynamic investment and compensation policies. When all rewards are identical, the unique optimal way to provide incentives is by a "carte-blanche" to pursue all rewards arriving in a predetermined timeframe.

Keywords: Dynamic Mechanism Design, Uncertain Action Availability.
JEL Classification: D82.

OPTIMALLY VAGUE CONTRACTS AND THE LAW

Nicola Gennaioli
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Giacomo A. M. Ponzetto
CREI, Pompeu Fabra University, IPEG and Barcelona GSE

Abstract
Many real world contracts contain vague clauses despite the enforcement risk they entail. To study the causes and consequences of this phenomenon, we build a principal-agent model in which contracts can include vague clauses whose enforcement may be distorted by biased judges and opportunistic litigants. We find three results. First, the optimal contract is vague, even if courts are very imperfect. Second, the use of vague clauses is a public good: it promotes the evolution of precedents, so future con-tracts become more complete, incentives higher powered, and surplus larger. Third, as precedents evolve, vague contracts diffuse from sophisticated to unsophisticated parties, expanding market size. The model sheds light on the evolution and diffusion of business-format franchising and equity finance.

Keywords: Incomplete Contracts, Contract Enforcement, Optimal Contracts, Legal Evolution, Precedents.
JEL Classification: D86, K12, K40.

<u>Microeconomics 2.</u> Room: *Auditori Convent (MACBA)*

FIRM DYNAMICS AND PRICING UNDER CUSTOMER CAPITAL ACCUMULATION

Sonia Gilbukh
NYU Stern
Pau Roldan
New York University

Abstract

What is the relationship between the rate at which firms accumulate their stock of demand over time and the prices that they set for their products? This paper analyzes the implications of customer capital accumulation for pricing behavior and firm dynamics. We build a tractable directed search model of the product market in which firms are ex-post heterogeneous in their customer base and commit to the prices they post. The model features dynamic contracts with endogenous customer reallocation, endogenous entry and exit of firms, and allows for a tractable characterization of the firm distribution. In equilibrium, there is price rigidity at the firm level, and price dispersion in the cross-section because firms of different sizes use different pricing strategies to strike a balance between attracting new customers and retaining incumbent ones. We show that our mechanism can generate realistic firm dynamics, a right-skewed firm size distribution, and various predictions on the cross-sectional distribution of prices, markups, and the rate and frequency of price changes.

Keywords: Firm Dynamics; Customer Capital; Product Market Frictions; Pricing.
JEL Classification: D21, D83, E2, L11.

PROMINENCE, COMPLEXITY, AND PRICING

Ioana Chioveanu
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Abstract

This paper analyzes the role of prominence in a homogeneous product duopoly market where firms simultaneously choose prices and price complexity levels. With price complexity, some consumers are unable to compare prices and firm prominence affects their choice and market outcomes. The share of confused consumers increases in the price complexity level. In equilibrium, both firms randomize on prices, and at least one firm randomizes between the lowest and the highest complexity levels. Compared to its rival, the prominent firm makes higher profit, associates a smaller price range with the lowest complexity, places a lower probability on the lowest complexity, and sets a higher average price. However, conditional on using the lowest complexity level, the prominent firm's average price is lower. Therefore, confused consumers' bias in favour of the prominent firm is consistent with the ranking of average prices firms offer with the lowest complexity.

Keywords: Oligopoly Markets, Prominence, Price Complexity, Price Dispersion.
JEL Classification: D03, D43, L13

RENT SHIFTING IN PROCUREMENT

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Daniel Cardona
Universitat de les Illes Balears and CREB

Abstract

In a procurement setting we study how a big buyer may set a contract with one of the existing suppliers in order to reduce procurement costs. The contract is not a barrier to entry (indeed both suppliers are already in the market) but anyway works as a rent-shifting mechanism from both suppliers to the buyer. Such a contract is profitable for the buyer only when its market share is sufficiently large; and when it is profitable, Buyer's profits are larger than those obtained when it can commit to have just one supplier.

DV_C10. Regional and Urban Economics 2. Room: *Fontserè (IEC)*

HOW SEGREGATED IS URBAN CONSUMPTION?

Donald R. Davis
Columbia University and NBER
Jonathan I. Dingel
Chicago Booth and NBER
Joan Monras
CEMFI
Eduardo Morales
Princeton University and NBER

Abstract

We provide measures of ethnic and racial segregation in urban consumption. Using novel user-generated online data, we estimate how spatial and social frictions influence restaurant visits within New York City. Transit time plays a first-order role in consumption choices, so consumption segregation partly reflects residential segregation. Social frictions also have a large impact on restaurant choices: individuals are less likely to visit venues in neighborhoods demographically different from their own. While spatial and social frictions jointly produce significant levels of consumption segregation, we find that restaurant consumption in New York City is only half as segregated as residences. Consumption segregation owes more to social than spatial frictions.

ARE IMMIGRANTS A THREAT OR A BOON FOR LOCAL LABOR MARKETS?

Javier Vázquez-Grenno
Universitat de Barcelona and Institut d'Economia de Barcelona

Abstract

This paper analyzes the effects of a unique immigration episode in Spain on local labor markets. Using data for Spanish urban areas, between 1998 and 2006, we estimate the effects of immigration on several labor market outcomes at the local level. Our findings reveal that, each additional immigrant, in a given urban area, is associated with an increase of between 0.4 and 0.5 local jobs, most of them in the non-tradable sectors. Coupled with this positive effect on local employment, we find that immigration did not affect native wages. In addition, we find no evidence of population displacement, but rather an increase in population. Overall, our results support the existence of significant and positive effects of immigration on local labor demand, one reason being that immigrants, as consumers, contribute to the demand for local goods/services.

Keywords: Local Labor Markets, Local Employment, Immigration.

JEL Classification: F22, F66, J61.