

PAPER ABSTRACTS

Academia Sinica

1. Kan Kamhon (Director)

2. Been-Lon Chen

Title: Quantifying Declines in Labor Supply between Employment and Hours: Labor Taxes vs. Labor Regulations

(with Chih-Fang Lai (National Taiwan University) and Chia-Hui Lu (National Taipei University))

From the early 1970s to the early 2000s, hours worked per person in Europe have declined by about 30% relative to the US. The breakdown of the decline is about 45% from employment rates and 55% from hours worked per worker. Two competing standpoints are high labor taxes and large labor regulations in Europe. This paper studies a neoclassical-growth and labor-search model and assesses relative importance of the effects of two competing viewpoints on average labor supply in Europe relative to the US. By calculating effective labor taxes and labor regulations across European countries and calibrating the model to fit the data for the US economy, we find that labor regulations cause larger declines in employment but slightly increase hours worked per worker, while labor taxes reduce both employment and hours worked per worker. In particular, labor taxes can account for the breakdown of the declining labor supply into shares between falling employment and lower hours worked per worker, but labor regulations cannot. Overall, labor taxes can better account for a lower labor supply than labor regulations.

3. Hanjoon Michael Jung

Title: Sender's Small Concern for Credibility and Receiver's Dilemma

We model a dilemma that receivers can face when the sender has small concern for his credibility. In an information transmission situation between one sender and possibly many receivers, suppose that the sender has small concern for his credibility in reporting truthful information. Then, responding to the receivers' strategies, the sender could have an incentive to reveal the true information which is referred to as Boosted Incentive Truthfulness (BIT). Next, due to this BIT, the receivers cannot completely ignore the sender's signals. As a result, the receivers get to play only the sender's favorite outcome. This is the Receiver's Dilemma. We formulate general situations and conditions under which the receivers would fall in this dilemma. Then, we provide three possible scenarios of the Receiver's Dilemma.

PAPER ABSTRACTS

4. Chih-Chun Yang

Title: Subjective Coalitional Equilibria and Coalitional Rationalizability

I propose a new notion of equilibrium in a finite normal form game where players are able to communicate by using correlated strategies and do not share a common prior belief. Subjective coalitional equilibrium is a refinement of Brandenburger and Dekel's (1987, *Econometrica*, 55, 1391-1402) a posteriori equilibrium. I prove that every finite normal form game has a subjective coalitional equilibrium. I show that Luo and Yang's (2009, *JET* 144, 248-263) coalitional rationalizable set is outcome equivalent to a subjective coalitional equilibrium. Moreover, under the assumption of independent common priors, subjective coalitional equilibria are ex ante identical to the intersection of the set of Nash equilibria and coalitional rationalizable sets.

5. C.C. Yang

Title: Optimal Linear and Two-Bracket Income Taxes with Idiosyncratic Risk

(with Minchung Hsu (GRIPS))

This paper quantitatively characterizes optimal linear and two-bracket income taxes in the presence of idiosyncratic risk. We consider a dynamic-stochastic-general-equilibrium model in which (i) agents face earning shocks that match real-world data, (ii) tax distortion exerts its impact on both labor-leisure and consumption-saving decisions, and (iii) tax design involves both redistributing income and providing insurance. It is shown that, given government consumption as of 17% of GDP, the optimal linear tax rate is 33% while the optimal two-bracket tax has 40% and 30% tax rates for the first and the second bracket, respectively. Other substantive findings include: (i) similar to Slemrod et al. (1994), the welfare gain is minor if using a two-bracket tax rather than being confined to a linear tax; (ii) a significant fraction of agents supply zero labor or hold zero asset at the optimal; (iii) neglecting tax distortion imposed on either of labor-leisure and consumption-saving decisions will prescribe tax codes that deviate substantially from the optimal; (iv) the optimal two-bracket tax schedule will turn from regressive to progressive in the marginal tax rate once the volatility of idiosyncratic shocks becomes sufficiently large.

PAPER ABSTRACTS

Kyoto University

1. Takashi Komatsubara

Title: Price Competition or Tacit Collusion

(with Makoto Yano (Kyoto University))

Every now and then, we observe a fierce price war in a real world market, through which competing firms end up with a Bertrand-like price competition equilibrium. Despite this, very little has been known in the existing literature as to why a price competition market is formed. We address this question in the context of a choice between engaging in price competition and holding a price leader. Focusing on a duopoly market, we demonstrate that if supply is tight relative to demand, and if the cost differential between firms is reasonably large, a price competition market is formed non-cooperatively.

2. Satoshi Mizobata

Title: Russian Transnational Corporations and their Management Strategies

Recent developments in FDI show that more and more emerging economies are involved in exporting foreign capital. Transnational corporations (TNCs) are no longer a unique phenomenon of developed countries. The present paper analyzes the activity of Russian TNCs. While looking at both the inward and outward FDI structure, we try to understand preconditions for the emergence and development of Russian TNCs, their formation process, evolution and motivation. Transnationalization process in Russia explicitly shows the domestic economic and business structure in Russia. Among the specific features of TNCs we identified the following ones: inclination towards natural resources, energy and metallurgy sectors; strong interrelation with the state; path-dependency in formation of TNCs and its impact on motivation for transnationalization (Soviet legacy); specific character of relations with CIS countries. Moreover, we indicated specific features related to the macro-economic structure of the Russian economy, namely the specific route for capital inflow and outflow and its strong relation with foreign liabilities structure, existence of offshore-type TNCs without clear property rights and industrial structure, usage of offshore schemes for tax evasion and as sources for transferring of the governmental aid in conditions of crisis. The paper points out to the necessity of revision of TNCs (MNCs) theory in emerging economies and sheds light on existence of the so-called Russian type emerging TNCs.

PAPER ABSTRACTS

3. Kenji Sato

Title : An Iteratively Expansive Unimodal Map is Strong Ergodic Chaos

(with Makoto Yano (Kyoto University))

Ergodic chaos plays a major role in the modern literature on economic fluctuations and business cycles due to its observability property. In this talk, we introduce a very simple sufficient condition for the existence of ergodic chaos with a unique ergodic measure and demonstrate that a wide range of economic models give rise to observable chaos in a strict sense. Application examples include a two-sector growth model with durable capital and Matsuyama's model of endogenous growth.

National University of Singapore

1. Soo Hong Chew, National University of Singapore

Title: Source Preference: Theory and Evidence from Choice Experiments incorporating Neuroimaging and Molecular Genetics

People exhibit source preference when they are not indifferent among identically distributed risks arising from different sources of uncertainty. Source preference encompasses a range of decision making 'anomalies' including ambiguity aversion and familiarity bias, and can relate to market level phenomena such as the observed affinity for risk taking in racetracks and casinos and the home bias puzzle in financial markets. Incorporating neuroimaging and molecular genetics into laboratory experiments enables a deeper understanding of decision making behaviour beyond revealed preference.

2. Julian Wright, National University of Singapore

Title: Ad-valorem Platform Fees and Efficient Price Discrimination

(with Zhu Wang (Research Department, Federal Reserve Bank of Richmond))

Online shopping platforms (such as Amazon and eBay) or payment card networks (such as Visa and MasterCard) serve to facilitate transactions between buyers and sellers. While these platforms typically only incur small per-transaction costs, they often charge sellers a substantial proportional fee plus a small fixed transaction fee. In this paper, we investigate the implications of this use of ad-valorem fees (fees based on

PAPER ABSTRACTS

value) by a monopoly platform. The platform has to deal with trade in multiple goods with different costs and valuations that it does not observe. We characterize a class of platform demand functions that rationalizes the platform's use of a linear fee schedule (a proportional fee plus fixed transaction fee). We show that allowing the platform to use ad-valorem fees is equivalent to it being allowed to use third-degree price discrimination in the hypothetical situation in which it observes the costs and valuations for each good traded and sets a different optimal fee for each. Surprisingly, we find for this class of demands, allowing the platform to set ad-valorem fees (i.e. price discriminate) generally increases social welfare.

3. Jingfeng Lu, National University of Singapore

Title: Reverse-Nested-Lottery Contests: Micro-foundation and Equilibrium

(with Qiang Fu (National University of Singapore) and Zhewei Wang (Shandong University))

This paper proposes a .reverse multi-prize nested-lottery contest model, which picks winners indirectly by excluding losers directly. The contest model can be viewed as a mirror image. of the conventional lottery contest, which is built on standard ratio-form contest success function. A micro-foundation of the reverse-lottery model is provided from a perspective of noisy performance ranking. We find that the model is underpinned by a unique (simultaneous) noisy-ranking system. The ranking model, by its statistical nature, can be reformulated and interpreted intuitively as a worst-shot contest, in which contestants' performances are evaluated based on the most severe errors they commit. We demonstrate that this reverse lottery model depicts a great variety of widely-observed competitive activities. A closed-form (symmetric) equilibrium solution to the contest model is provided. We find that the winner-take-all principle continues to hold in reverse lottery contests. Moreover, we find that a reverse-lottery contest elicits more effort than a conventional lottery contest whenever prizes available to contestants are relatively scarce.

4. Tomoo Kikuchi, National University of Singapore

Title: A Mechanism for Booms and Busts in Housing Prices

(with Marten Hillebrand (Karlsruhe Institute of Technology))

PAPER ABSTRACTS

We study an exchange economy with overlapping generations of consumers who derive utility from consuming a non-durable commodity and housing. A banking sector offers loans to finance housing. We provide a complete characterization of the equilibrium dynamics which alternates between an expansive regime where housing prices increase and banks expand loans and a contractive regime associated with decreasing housing values and shrinking credit volume. Regime switches occur even under small but persistent income changes giving rise to recurrent booms and busts in housing prices not reflecting changes in fundamentals.

5. Yi-Chun Chen, National University of Singapore

Title: Genericity and Robustness of Full Surplus Extraction

(with Siyang Xiong (Rice University))

We study whether priors that admit full surplus extraction (FSE) are generic, which becomes a gauge to evaluate the validity of the current mechanism design paradigm. We consider the space of priors on the universal type space, and thereby relax the assumption of a fixed finite number of types in Crémer and McLean (1988). We show that FSE priors are topologically generic, contrary to the result of Heifetz and Neeman (2006) that FSE is generically impossible, both geometrically and measure-theoretically. Instead of using the BDP approach or convex combinations of priors adopted in Heifetz and Neeman (2006), we prove our genericity results by showing a robustness property of Crémer-McLean mechanisms.

Seoul National University

1. Rhee Younghoon (Director)

2. Youngsub Chun

Title: Subgroup Additivity in the Queueing Problem

with Manipushpak Mitra (Indian Statistical Institute)

We introduce 'subgroup additivity' as our main axiom and investigate its implications for the queueing problem. The axiom of subgroup additivity requires that a rule assigns the same expected 'relative' utility to each agent whether an agent's expected relative utility is calculated from the problem involving all agents or from its sub-problems with a smaller number of agents. As a result, we present characterizations of five

PAPER ABSTRACTS

important rules in the queueing problem: the minimal transfer rule, the maximal transfer rule, the symmetrically balanced VCG rule, the pivotal rule and the reward based pivotal rule. Given some basic axioms and subgroup additivity, the characterization results can be obtained by additionally imposing either strategic axioms (like weaker versions of strategyproofness) or equity axioms (adjusted versions of egalitarian equivalence). Each strategic axiom can be replaced by an appropriate equity axiom for the characterization of all five rules.

3. Jinwoo Kim

Title: Assigning Resources to Budget-Constrained Agents

with Yeon-Koo Chen (Columbia University) and Ian Gale (Georgetown University)

This paper 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.

4. Chulhee Lee

Title: *In-Utero* Exposure to the Korean War and Its Long-Term Effects on Economic and Health Outcomes

Prenatal exposure to the disruptions caused by the Korean War (1950–1953) negatively affected individual socioeconomic and health outcomes at older ages. The educational attainment and labor market performance of the subjects of the 1951 birth cohort, who were *in utero* during the worst time of the war, were significantly lower in 1990 and 2000. The results of difference-in-difference estimations suggest that the magnitude of the negative cohort effect is significantly larger for individuals who were more seriously traumatized by the war. As for health outcomes, the 1950 male birth cohort exhibited a significantly higher disability rate in 2005. Women married to the men in the 1950 birth cohort are more likely to be disabled at old age. If potential selections in pregnancy, birth, and survival are considered, the negative effects of the war may be even greater than suggested in this study. The longterm effects of *in-utero* circumstances differ by gender. This difference may be partly attributed to the strong population selection for the 1951 female cohort and the potent influence of the husband's health status over a woman's own health.

PAPER ABSTRACTS

Different aspects of human capital (e.g., health and cognitive skills) were impaired by *in-utero* exposure to the war, depending on the stage of pregnancy when the negative shocks were experienced.

5. Chul-In Lee

Title: Regulation of Natural Monopolies, Self-Selection, and Optimal Taxation

(with Jeehyun Ko (Seoul National University))

It is well-known that the increasing returns-to-scale (IRS) property accounts for the presence of natural monopolies, which usually become public enterprises or are subject to regulations. This paper argues that public enterprises provide private goods not only for the IRS property, but also for relaxing the incentive problem of the tax system: they help relax the self-selection constraint of the optimal income tax problem through non-linear pricing. The intuition is that when some private goods with IRS properties (e.g., public transportation) relative to other goods are more valuable to low-ability individuals than the high-ability counterparts in terms of the marginal rate of substitution (MRS), the high-ability individuals are discouraged to mimic low-ability ones. Our results provide theoretical underpinning for the low price of publicly provided private goods for low-income individuals, breaking the $p = MC$ rule for efficient redistribution. The optimal nonlinear pricing allows low marginal tax rates for both types, leading to greater work incentives.