“Robust Optimal Income Taxation”

We study the problem of a social planner who designs a tax rule to optimally redistribute income across heterogeneous workers. In our model, the planner faces uncertainty about the possible labor choices that are available to each type of worker, and can therefore not perfectly predict the income distribution that is induced by a given tax rule. In the face of this uncertainty, the planner maximizes her worst-case payoff. We show that using a tax rule with increasing marginal rates is optimal, and that it is uniquely so under an additional richness assumption on the set of income choices that the social planner knows is available to workers. This result stands in contrast to the familiar zero-taxation at the top result that arises generally (absent specific distributional assumptions) in the Bayesian optimal taxation model of Mirrlees (1971). To that extent, our robust approach to uncertainty about workers’ income possibilities provides a foundation for progressive income taxation—a feature that is prevalent in most existing tax systems—that does not rely on assumptions on the distribution of workers’ productivity or on the social planner’s preference for redistribution.

“The Value of Information in Delegation”

We study an optimal delegation problem in which the principal can jointly design a signal that may be used by the agent before making his decision (an information policy), together with the set of actions that the agent can choose from after observing the information disclosed by the principal (a delegation policy). Transfers are not allowed. We find that the optimal joint information and delegation policy features a double-censorship structure, in which the principal censors both the realizations of the state that she discloses and the actions available to the agent. We show that information and discretion serve as substitutes: the principal gives less discretion to the agent after realizations of the state that are fully disclosed, and vice versa. The intuition is that more discretion makes the agency problem more salient and thus lowers the principal’s gains from information disclosure. We apply these findings to a monopoly regulation setting where the regulator can jointly regulate the market segmentation (i.e., by limiting the extent to which the monopolist can engage in third-degree price discrimination), and the set of (segment-specific) prices that the monopolist can use.

“What type of transparency in OTC markets?” with Piotr Dworczak

Financial over-the-counter markets have been traditionally very opaque. Recent regulation promotes transparency in some of these markets by lowering search costs, allowing traders to request quotes from multiple dealers at the same time (pre-trade transparency), and requiring public disclosure of past transactions (post-trade transparency). We evaluate these policies using a dynamic trading model with adverse selection. We show that post-trade transparency improves upon the opaque market but is
dominated by pre-trade transparency; moreover, adding post-trade transparency to a pre-trade transparent market offers no benefits and can be harmful. We identify cases in which lowering search costs can be detrimental to market efficiency. Finally, relying on a mechanism-design approach, we characterize the optimal trading mechanism in our framework.

“Reputational Bargaining and Inefficient Technology Adoption”, with Harry Pei

A buyer and a seller bargain over the price of an object. Both players can build reputations for being obstinate by offering the same price over time. Before players bargain, the seller decides whether to adopt a new technology that can lower his production cost and the buyer cannot observe this adoption decision. We show that players’ reputational incentives can lead to inefficient adoption and significant delays in reaching agreement, and that these inefficiencies arise in equilibrium if and only if the social benefit from adoption is large enough. As a result, an increase in the social benefit from adoption may lead to a lower adoption probability and a longer expected delay.