NBER Digitization Tutorial Application

1 Contact Information

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2 Graduate Study Description

I am a third year PhD student in Economics at NYU Stern School of Business. Before starting my PhD, I have pursued a Master of Science in Economics and Social Science at Bocconi University.

During my first year, I completed the PhD sequences of Microeconomics, Macroeconomics and Econometrics and a class of Mathematics for Economists during the first semester. This allowed me to learn from excellent professors and to deepen my understanding of the main economic models.

In my second year, I selected my classwork to focus on the fields I am more passionate about. My major field of study is **Micro Theory**, while the minor one is **Industrial Organization** and the classes I decided to attend are

- **Game Theory** I and II (respectively with Sylvain Chassang and Laurent Mathevet)
- **Empirical Industrial Organization** I and II (respectively with Christopher Conlon and Daniel Waldinger)
- **Experimental Economics** (with Guillame Frechette)
- **New Research in Economic Theory** (with Debraj Ray)

I have been extremely inspired by the topics studied in these classes and by the discussions with peer students and professors. With the support of my two advisors (Maher Said and Debraj Ray), I have started to develop interest in competition among platforms and in the impact of certification schemes on competing actors and consumers. I am currently working on projects that focus on these topics and I am auditing two

classes that provides me with key methodology to explore my area of interests, i.e. a **Game Theory** class taught by Dilip Abreu and Ennio Stacchetti and a **Stochastic Calculus** class taught by Jonathan Goodman.

3 Research Interests

Field of interests: Microeconomic Theory, Industrial Organization, Digital Economics

Digital platforms are gaining progressively more importance in most of the industries. Platforms constitute a link between consumers and suppliers in the industry, aiming at improving/increasing the matching opportunities between the two and/or at solving some kind of frictions due to asymmetric information between the the parties. In my first two years of PhD, exploring the literature and interacting with both fellow students and professors, I have become extremely interested in modeling how the existence of platforms affects the interaction between players in the markets, focusing on different roles that the intermediary might have. In particular, I have been working on two projects with the constant advice and supervision of my advisors and I hope to deepen even more my investigation of such dynamics.

The first project I would like to mention is a joint work with a fellow graduate student (Anna Airoldi) and has current title "*Platform Most-Favored-Nation clauses and multi-lateral bargaining*". In many digital markets, the relation between platforms and affiliated suppliers is regulated by vertical contracts. There is evidence that vertical restrictions, like Most-Favored-Nation (MFN) clauses, are widely used in several industries (from online travel agencies to food delivery platforms) and have gained increasing attention of antitrust authorities. There is an open debate about such clauses, that weights the pros in terms of efficiency against the cons in terms of potential restriction of the competition (leading to higher prices and higher platforms fees). These dynamics raised our interest and we decided to study how the introduction of price restrictions affects the outcome in digital markets when platform and supplier bargain over the fees the latter has to pay. In particular, we want to study how the introduction of a MFN may change the bargaining position of either party in the negotiation and affect final prices and affiliation choices. For this reason, we are working on a theoretical model that link the potential anticompetitive effects of a MFN and the platform's bargaining power. The aim is to formally characterize how the MFN affects the "de facto" bargaining power of the suppliers and how this translates in equilibrium outcomes.

The second project I have been working on studies the impact of certification schemes and review mechanisms on firms' investment decisions. The wide use of digital platforms in many industries have made much easier the collection of feedbacks from users, producing huge amount of data that can be used for the evaluation of firms. Platforms acting as intermediaries in this sense have a key role in aggregating feedbacks and producing information that is very valuable for the users. Indeed, certification and reviews mechanisms are often used to mitigate the asymmetric information problem between consumers and suppliers. However, there is a wide literature that shows how this beneficial effect is often counteracted by an exacerbation of the moral hazard problem, since now firms see delayed (or even completely eliminated) a negative effect of low effort on their profits. At the same time, some theoretical studies highlight the role that such mechanisms can have as barrier to entry for new and maybe initially suboptimal suppliers, depriv-

ing them of the opportunity to gain experience and market shares. My model aims at combining these different views to construct a certification mechanism that corrects for such inefficiencies, providing information to customers and at the same time incentivizing the firms to constantly invest in quality. This might lead to concrete indications on how to optimally design review and certification platforms, which are frequently available in digital markets.

As the projects above described show, I am extremely fascinated by the functioning of digital markets. Even if my current work is mostly theoretical, I am deeply interested also in empirical aspects of digital markets and I hope to enrich my theoretical research with data work in the near future. I am sure that attending your tutorial I can both improve my current research projects and better understand the frontier of research in this area, so that I can hopefully add to it in the future.