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Digital Economy / Industrial Organization

From old to new questions

Recent contributions to understand modern markets' competition

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As **digital markets continue to expand in size and complexity,** more evidence and theory are needed to understand them. This year's Digital Economics Conference in the TSE[1] covered the latest economic and policy research on the topic, with a **special focus on the industrial organization of digital platforms.**

Market incentives to create a platform

From a theoretical perspective, a major topic is the organizational **transformation of traditional "productive pipelines" into "platforms"** -be it under a two-sided or multi-sided setting. Under the correct market conditions, there may be a win-win strategy where a traditional multiproduct firm gains from creating a platform that hosts its rivals in one of its many products, while those rivals have the incentives to participate in such platform. The **natural trade-off for a multiproduct firm** when creating a platform is **the additional value that can be generated from managing such platform** versus the **cost of facilitating a higher level of competition** for one of its many products -Hagiu et al (2018). Such theoretical underpinning allows us to better understand, for example, why Apple app store hosts competing apps from Google (like the internet browser).

Market incentives and distortions within platforms

Platforms **may facilitate business models that generate additional value to participants.** In an interesting empirical exercise using Spotify data, Aguiar and Waldfogel (2018) found strong and significant **"promotion and discovery" effects** from both the rankings and the suggested music lists constructed by Spotify, a finding that **opens the discussion on the incentives behind any platform's promoting or scoring criteria.**

Platforms **may foster well-known market distortions and informational failures.** There is empirical work that measures how the degree of adverse selection and moral hazard changed in **eBay's marketplace** after new rules were set in 2008 -Saeedi, et al (2018). The new **rules restricted negative feedbacks from seller to consumers avoiding retaliation spirals,** causing both **a rise in the average quality of sales** provided in the marketplace (reducing moral hazard as seller where more focused in quality efforts) and also an **increase in the average quality pool of sellers** as low-quality ones exit the marketplace (reducing adverse selection).

Platforms and the nature and limits of firms

Platforms are forcing **a reassessment of old paradigms regarding the nature and limits of firms** -Coase (1937). For example, **do vertically-integrated firms face similar incentives to transform themselves into platforms?** Or do they face additional old trade-offs? What should be the response of regulators?

1: See, TSE 12th Digital Economics Conference

Let's think of a critical intermediate input for the production of a good -e.g., a break system for a car producer or wings parts for an airplane- that a currently integrated firm could eventually start buying from a rival through its newly created platform. Such **platform may reduce agency costs for the integrated firm by allowing competition among rivals** to supply the input, on top of other well-known benefits linked to network effects. Nonetheless, **those benefits come at the cost of an (old) adverse selection problem for the quality of inputs. Screening critical inputs from rival suppliers** in one's platform **can be costly if a firm intends to preserve quality and reputation** for both its product and platform.

Overall, **that old agency trade-off** is a core element to **understand the natural limits and boundaries of both platforms and firms.** Consensus was reached in the idea that **not all products can be turned into platforms.** This **could be especially true for credit supply,** where there are also additional costs related to financial stability. For example, **in the case of a platform that intermediates credit or deposits, both market incompleteness and risk misallocation could arise** if financial intermediation is organized under these settings. In this sense, **screening devices for creditworthiness are still a critical input for both credit supply quality and financial stability purposes.**

Platforms, social welfare and policy questions

Platforms are here to stay and promise benefits for all. But **what if things go in the wrong direction** in term of consumer and society welfare? **Platforms owners may have incentives and opportunities to concentrate and extract even higher surpluses** -e.g., by charging access fees on one or various sides of consolidated platforms, arbitraging tax receipts from one jurisdiction to another, and exploiting monopoly rents from their data and from data merges with other platforms. It can be quite **problematic for tax and competition policy when such platforms grow too big and concentrated.**

Platforms and the tax policy dilemma

In these regards, Bloch and Demange (2018) analyse the impact of multiple tax regimes on the allocation of output (transactions) and on the price behavior of platforms that have a presence in several jurisdictions; separate accounting when platform choose where a transaction took place and the formula apportionment based in the number of users in different jurisdictions. They conclude that **platforms have incentives to shift revenues across jurisdictions,** usually in favor of places that levy lower taxes, **distorting optimal prices and shifting the place where to declare their transactions.** Overall, **platforms seem to benefit from separate accounting rules** across jurisdictions but **at the cost of both consumers welfare and fiscal revenues.** Further research is needed to generalize an equilibrium income tax rate when jurisdictions compete for tax revenues. **This research gains relevance as the momentum for multilateral efforts over tax policy coordination is faltering.**

Platforms and antitrust policy concerns

Questions on antitrust policy still relate to the **overall benefits of platforms and whether antitrust enforcement can address the challenges they pose for competition and society.** The **analysis is focusing on recent mergers,** especially those of big platforms that buy and inhibit competition through "killer" mergers. In addition, **individuals' data -ownership and access- remain concentrated in the hands of big platforms** that obtain consumer consent in debatable ways; for example, conditioning access to a platform only if the individual agrees to the commercial use of his/her personal data footprint, is considered by many a coercive practice. **Data misuse is mostly observed in both (excessive) advertising practices and demand for attention.**

Policymakers have to understand these challenges while proposing new and better policy to address them -**should competition enforcer change their paradigm and focus on abuse rather than dominance control?** And **should they impose ex-ante -sector specific or tougher merge controls- rather than ex-post -damage control- regulation?** Other horizontal –market approach- policy being assessed –mostly to avoid discouraging innovation- are the enforcement of a common channel that guarantees the interoperability of individuals' data across platforms, or regulating access by third parties to individuals' data in any platform as a way to complete "information markets".

Overall, **competition dynamics in these settings are not only complex but difficult to address and foresee** in terms of social welfare, and the most honest answer is that we do not know them completely. But clearly the **debate in coming years will turn around the long-run social welfare consequences of big platforms.**

Data regulation, data ownership and other concerns

Other relevant and interesting research include **how likely AI algorithms facilitate price collusive behavior** among competitors -Calvano et al (2018), the analysis of **contracts to optimally allocate data ownership** -Sand-Zantman and Dosis (forthcoming), the effect of personal data regulation on firm entry -Lam and Liu (2018), and **the political economy of noisy information and fact checking in this post-truth era** -Barrera et al (2018).

References

Aguiar L. and Waldfogel J. (2018), "Platforms, promotion, and product discovery: Evidence from Spotify playlists"

Bloch F. and Demange G. (2018), "Profit-sharing rules and taxation of multinational two-sided platforms"

Barrera O., et al (2018), "Facts, alternative facts, and fact checking in times of post-truth politics"

Calvano E., et al (2018), "Artificial intelligence, algorithmic pricing and collusion"

Coase R. (1937), *"The nature of the firm"*. Economica, New Series, Vol. 4, No. 16, pp. 386-405

Hagiu A., et al (2018), "Creating platforms by hosting rivals"

Lam and Liu (2018), "Does data portability facilitate entry"

Saeedi M., et al (2018), "Adverse selection or moral hazard: An empirical study"

Sand-Zantman W. and Dosis A. (2018), "The ownership of data"

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