The economic analysis of two-sided markets and its implications for competition law

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Issues to be discussed

- **What is a two-sided market?**

- Example of two-sided markets

- The economics of two-sided markets

- Differences between two-sided and one-sided markets

- Limits of the traditional tools of economic analysis for two-sided markets

- Fallacies

- Conclusion

What is a two-sided market? Rochet- Tirole defintiion

Definition focused on the **price structure**

A "market is two-sided if **the platform can affect the volume of transactions by charging more to one side of the market and reducing the price paid by the other in an equal amount**; in other words, the price structure matters, and platforms must design it so as to bring both sides on board". "

The market is one-sided if the end-users negotiate away the actual allocation of the burden".

((Rochet and Tirole (Two-Sided Markets: A Progress Report, 37 Rand J. Econ., No. 3, 645, 648 (2006)):

Dirk Auer and Nicolas Petit: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Tirole-Rochet definition

An essential condition for the existence of a two-sided market is that bargaining between both sides of a platform is impossible and **therefore there is no possibility to pass-through the price allocation through side payments between end-users**

Ex: **a supermarket**: suppliers cannot bargain with consumers and pass through the platform's allocation of costs because, unless there is RPM, it is the supermarket (i.e. the platform) that sets the retail price

But **a shopping mall** would not be a two-sided market because shops sell to consumers and can pass-on to consumers the rent that is imposed by the shopping mall

Dirk Auer and Nicolas Petit: Two-sided markets and the challenge of turning economic theory into antitrust policy'', The Antitrust bulletin, October 6 2015

Factors which may affect the two-sidedness of the market under the Tirole-Rochet definition

The two-sidedness of a market may depend on whether or not the two sides can interact through side payments and whether they can change the allocation of costs between them set by the platform:

-**Contractual clauses** between the platform and one side (ex Supermarket with RPM is not two sided since the supermarket does not determine the prices to consumers)

- **Governance structure** of the platform

- **Legal provisions** (ex if stores can price higher when consumers pay with a credit card, they can pass on to the consumers the cost they have been allocated by the platform ; hence the market becomes one-sided).

Dirk Auer and Nicolas Petit: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Evans- Schmalensee definition

Definition focused on **the transactional remedy derived from the platform**; (wider than the Tirole-Rochet definition)

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"a multisided platform" has "two or more groups of consumers"; "**who need each other**"; "**who cannot capture the value of their mutual attraction**"; **and "rely on a catalyst to facilitate" their interaction**".

Evans and Schmalensee, The Antitrust Analysis of Multi-Sided Platform Businesses (Nat'l Bureau of Econ. Research, Working Paper No w18783, 2012)

Dirk Auer and Nicolas Petiti: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Rysman definition

Definition focused on the **indirect network externality**

There is a two-sided market when there is "*some kind of interdependence or externality between groups of agents that are served by an intermediary*"

(Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. ECON. PERSPECTIVES, No. 3, 125, 125-143 (2009)).

Dirk Auer and Nicolas Petiti: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Elements of two-sided markets

Two-sided markets are served by platforms that have:

1. two distinct groups of consumers

2. indirect externalities exist across groups of consumers, and

3. a price structure is non-neutral which means that there no or limited possibility for the two groups of consumers to alter the allocation of costs decided by the platform through side payments

Definition

1. **There are two distinct groups of consumers**

- These need each other in some way and **rely on the platform to intermediate transactions between them.**

- A two-sided platform **provides goods or services simultaneously to these two groups.**

Definition

2. There are indirect externalities across groups of consumers.

- **The value that a customer on one side realizes from the platform increases with the number of customers on the other side**.

- For example, a **search platform** is more valuable **to advertisers** if it is more likely that it will reach a **larger number of potential buyers.**

- At the same time, it is **more valuable to potential buyers** if the platform has **more advertisers** because that makes it more likely that a buyer will see a relevant advertisement.

Definition

3. The price structure set by the platform is non-neutral

- The **price structure is the way prices are distributed between consumers on the two sides of the market**.

- The platform can affect the volume of transactions by charging more to one side of the market and reducing the price paid by the other side by an equal amount.

- **Since the price structure matters, the platform must design it so as to induce both sides to join the platform**.
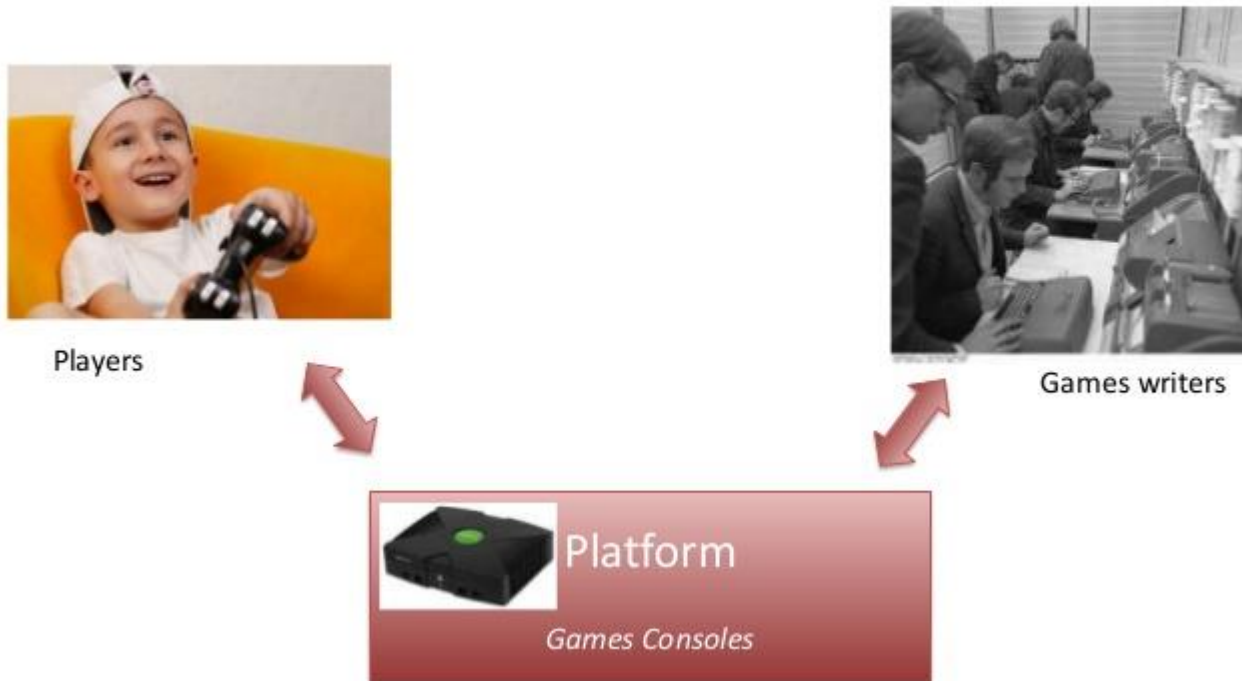
and cannot be altered by side payments between the two sides
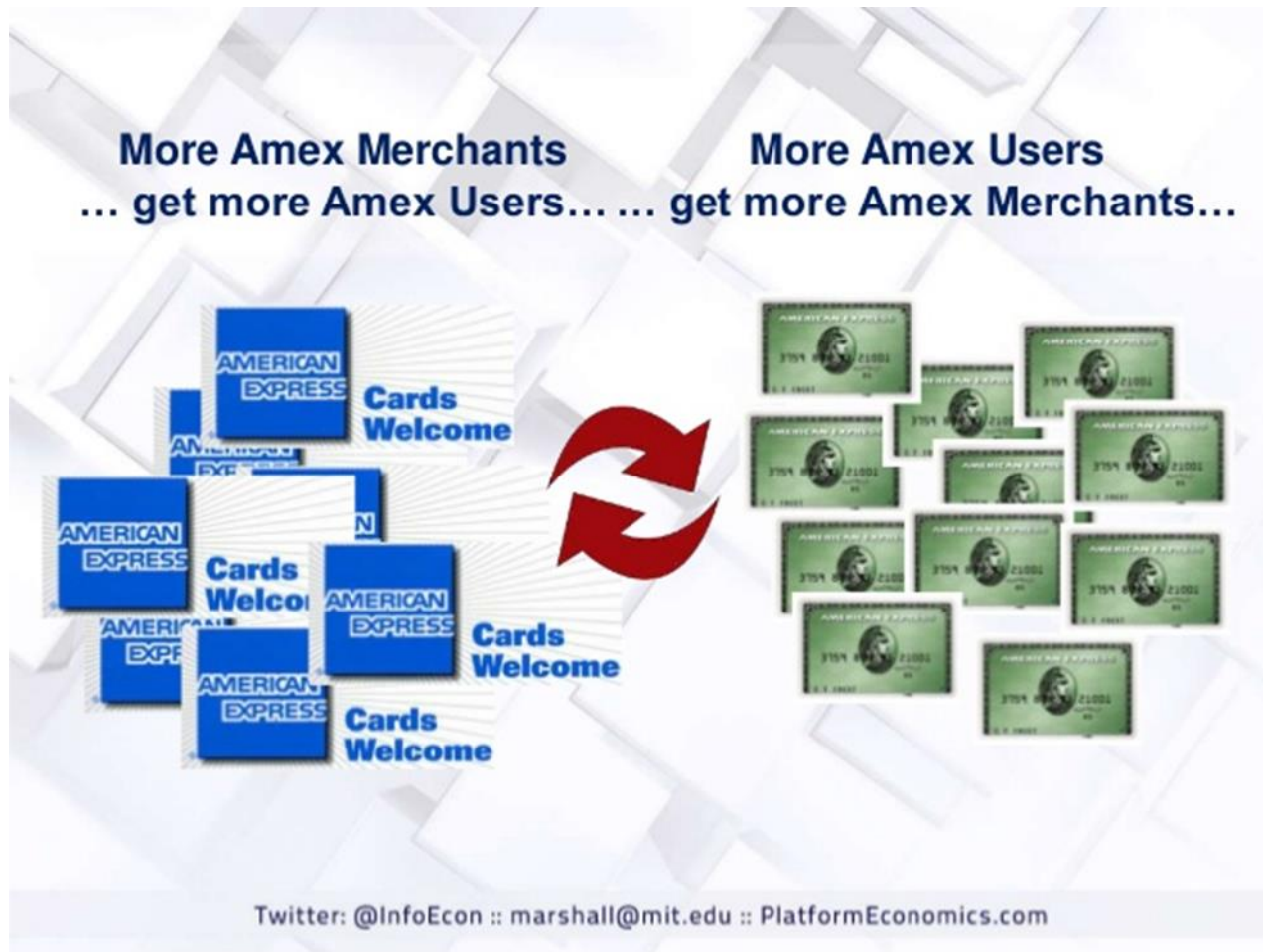
Issues to be discussed

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- Limits of the traditional tools of economic analysis for two-sided markets

- Fallacies

- Conclusion

Examples of two-sided markets

Platforms Games Console

Players

Games writers

Platform

Games Consoles

Examples of two-sided markets

More Amex Merchants … get more Amex Users…

More Amex Users … get more Amex Merchants…

Twitter: @InfoEcon :: marshall@mit.edu :: PlatformEconomics.com

Examples of two-sided markets

More Android Developers ... get more Android Users.... get more Android Developers...

Twitter: @InfoEcon :: marshall@mit.edu :: PlatformEconomics.com

Examples of two-sided markets

Platforms: Shopping Mall **?**

Shopper

Store

Platform

Mall

Examples of multi-sided platforms

Monetizing FREE

Platforms: HMO

Patients

Care facilities

Doctors

Platform

HMO
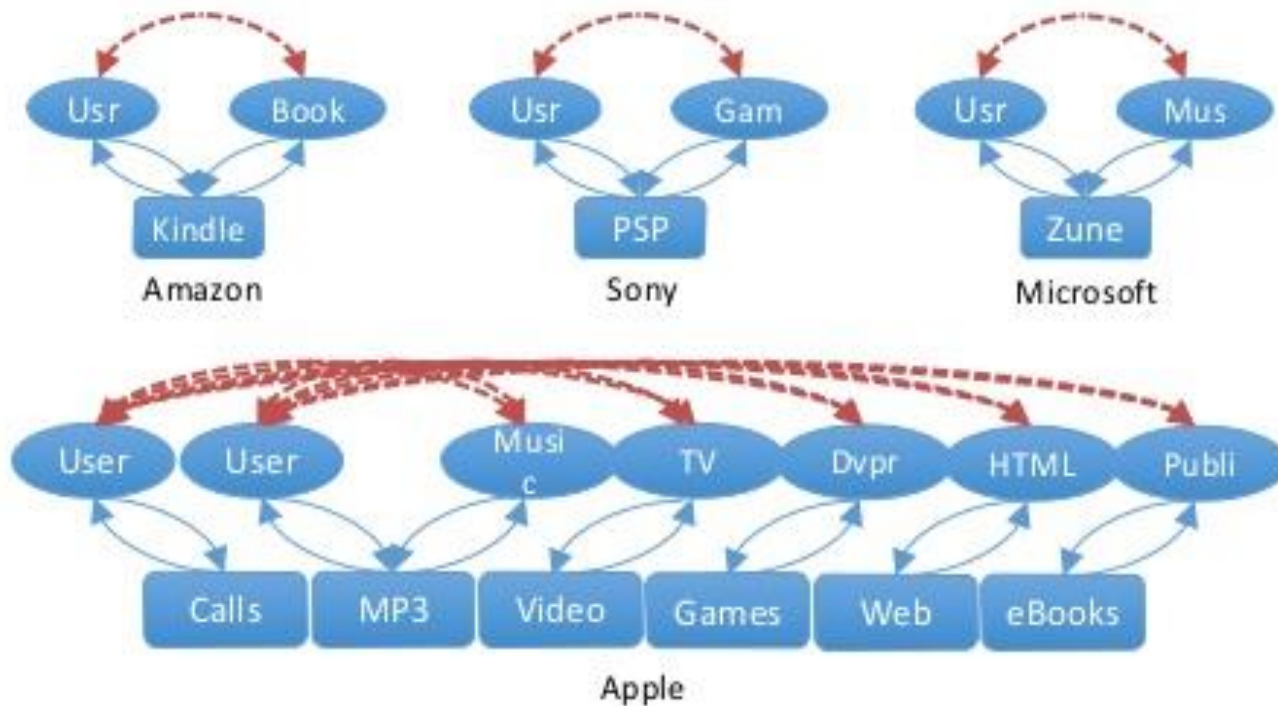
Standalone platform and multiple platforms

Eisenmann, Parker, Van Alstyne (2011),
"Platform Envelopment," Strategic Management Journal.

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Pricing on two-sided markets

Pricing in two-sided markets has received considerable attention in formal economic research. The main result is **that pricing to one side of the market depends not only on the demand and costs that those consumers bring but also on how their participation affects participation on the other side and the profit that is extracted from that participation.**

In a one-sided market, we can characterize the price– cost mark-up in terms of elasticity of demand and the marginal cost.

But in a two-sided market, pricing decisions will also include the elasticity of the response on the other side and the mark-up charged to the other side. Since the platform faces a similar computation on the other side, prices on both sides of the market depend on the joint set of demand elasticities and marginal costs on each side (Rochet and Tirole, 2003, 2006; Weyl, 2009)..

Rysman, Marc. 2009. "The Economics of Two-Sided Markets." Journal of Economic Perspectives, 23(3): 125-43.
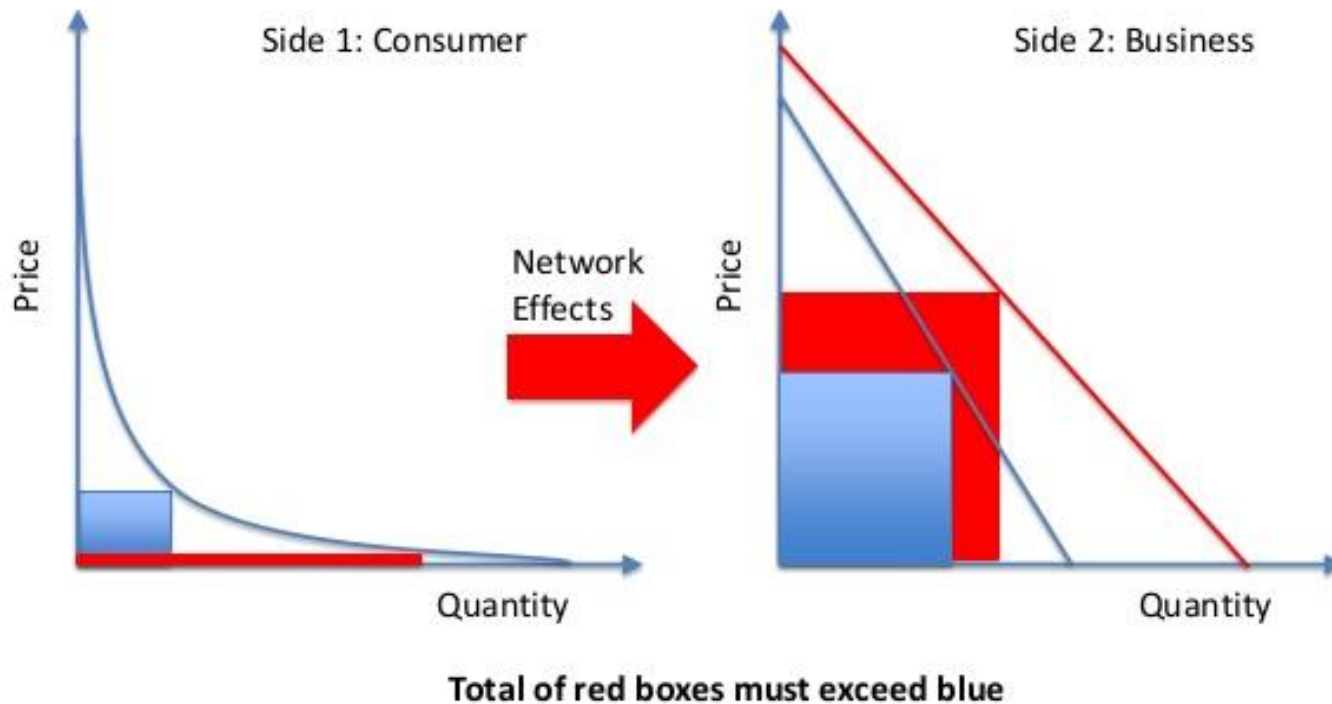
Pricing on two-sided markets

This result has important implications for prices.

For instance, in any market, prices typically fall as the price elasticity of demand increases, but in a two-sided market the effect can be even larger:

The low price on one side not only attracts elastic consumers on that side but also, as a result, leads to higher prices or more participation on the other side. The increased value extracted from the other side magnifies the value of having consumers on the first side, which leads to a yet bigger price decrease and quantity increase for the side that experiences the increase in elasticity

Rysman, Marc. 2009. "The Economics of Two-Sided Markets." Journal of Economic Perspectives, 23(3): 125-43.

Pricing on two-sided markets

Collectively maximize both markets

Total of red boxes must exceed blue

Leverage network effects

Pricing on two-sided markets

Such seeming anomalies as price below marginal cost or even negative prices can easily arise in a two-sided market.

For example, a platform might charge a price below cost on one side if those agents have a large price elasticity and their participation attracts a large number of participants on the other side who are relatively price inelastic (and hence have a high mark-up).

Consider Microsoft, which makes it very easy to become a software developer for the Windows operating system and arguably subsidizes this activity with tutorials and supportive websites. Presumably, Microsoft has set the price to developers well below what the cost of serving them and their demand would imply in a simple one-sided model. However, **consumers value developer participation, and consumers pay a mark-up over marginal cost that makes attracting the developers worthwhile for Microsoft, even at the expense of potential profits Microsoft could be making from the developer side**.

Rysman, Marc. 2009. "The Economics of Two-Sided Markets." Journal of Economic Perspectives, 23(3): 125-43.

Platform use free for one side of the market

Economics of Free Service

Adding a user
- Increases value of Platform
- Adds costs

When

Value > Costs

It makes sense to offer service for free

Value of adding a user

Cost of servicing a user

Example of asymmetric pricing of a platform

Use Case: Adobe PDF

- Leveraged existing user base for PostScript
- Initially charged for both reader and writer
- Moved reader to Free
  - Over 500 million users
  - Very attractive to content creators
    - Everyone has reader

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Groups of consumers in one sided markets and in multi-sided markets

In models involving price discrimination it is possible to choose profit-maximizing prices that account for differences in demand between individuals or groups of individuals. However, these demands are not interrelated.

In the case of multisided platforms the firm solves for the profit-maximizing prices given the interrelated demands of two or more groups of customers.

This results in a set of simultaneous equations that, roughly speaking, correspond to **marginal revenue equaling marginal cost for each group taking into account impacts on the demands of the other group(s). The simultaneity is a direct result of the dependence of demand by members of one group on the demand by members of another group.**

Interdependency of demands in multi-sided markets

Economic analysis of antitrust issues that fails to account for interdependent demand for multisided platforms—either by explicitly considering this demand in the models relied upon or by accounting for possible biases from not doing so—is not reliable and should not be given weight by courts or competition authorities.

David S. Evans , The Consensus among Economists on Multisided Platforms and Its Implications for Excluding Evidence that Ignores It,13 April 2013

Key challenges of analysis in multi-sided markets

Most of the theoretical models on which competition law typically relies assume one-sidedness, in that they consider one single set of customers and their reaction to changes in supply, as well as the response of suppliers to changes in that demand.

In multi-sided platforms however, the assessment becomes multi-dimensional. In these settings one needs to factor in the existence of multiple customer groups with interdependent demand and analyse

(i)   how each side will react to a given move on the part of the platform;
(ii)   how will the platform react to moves on the different sides; and
(iii)   how each side will react to each other.

Alfonso Lamadrid de Pablo1

The dynamics of multi-sided markets

The complexity of these exercises is further enhanced by another important dimension to consider: time.

One of the crucial features of these markets – particularly technology markets
– is the speed at which they progress; business practices are not only complex, but also highly dynamic; the ability of these platforms to grow, and the speed at which they scale, is unprecedented in any other business.

Accordingly, these platforms are constantly increasing their depth and reach, constantly redefining their boundaries as well as those of entire industries.

In case things were not difficult enough, competition authorities are asked to react swiftly to rapidly evolving situations. Moreover, and aside from substantive questions, **the time dimension also raises enforcement issues: when should competition authorities intervene? Is it preferable to prevent or to cure?**

Alfonso Lamadrid de Pablo

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- **Limits of the traditional tools of economic analysis for two-sided markets**

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The limits of traditional tools used in antitrust analysis

The economics literature to date has shown **that a number of the standard economic models, theorems, and tools that are relied on in antirust do not apply to multisided platform businesses without significant modification**.

The following is a not necessarily complete compendium of known and well-documented problems with applying results based on single-sided analysis to multisided platforms:

• **The Lerner Index based on the elasticity of demand for a single group of customers does not hold**.

• **The SSNIP test is wrong conceptually when applied to one group of platform customers**.

• **Critical loss formulas based on diversion ratios and estimates of the elasticity of demand for a single group of customers are wrong**.

David S. Evans , The Consensus among Economists on Multisided Platforms and Its Implications for Excluding Evidence that Ignores It, 13 April 2013

The limits of traditional tools used in antitrust analysis

• **Estimates of structural models are biased if the econometric model specified does not consider the demand interdependencies**.

• **The upward pricing pressure formulas derived for single-sided firms are wrong for multisided platforms**.

• **Price less than marginal cost for one group of customers is consistent with non-exclusionary profit-maximizing behavior**.

• **The conditions under which a tie could exclude competition found by traditional models do not apply**.

In many of the cases above the multisided **platform literature has derived extensions of single-sided formulas to the multisided platform context. Unfortunately, many of the simple formulas used for "back of the envelope" calculations turn out to be quite complicated for multisided platforms and require much more information to implement.**

David S. Evans , The Consensus among Economists on Multisided Platforms and Its Implications for Excluding Evidence that Ignores It, 13 April 2013

Ex : the SSNIP test

Most economists agree on the high level idea that the SSNIP test should be adjusted in multi-sided environments. But there is much less consensus on the practicalities of SSNIP analysis in such markets.

Indirect network externalities should be brought into the picture when the SSNIP test is applied in two-sided markets.

Such externalities may turn a profitable SSNIP on a single side into an unprofitable SSNIP when both sides are taken into account.

The application of the SSNIP test in two-sided markets was one of the issues raised by the DoJ and the parties in the *United States v. First Data Corp* District Court case

Dirk Auer and Nicolas Petit: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Ex : SSNIP test

Should a single SSNIP test be applied to both sides of the market, or should a separate test be applied to each side?

In the First Data case, the DoJ looked at both sides of PIN networks separately and only applied the SSNIP test to the merchant side (it is on this side that anticompetitive effects were deemed most likely).

Whether this was the right decision is debatable. Some **economists argue that a single "platform" market should be defined when users on both sides of the platform conclude tangible transactions** (i.e. a financial transfer in exchange for a good or service) which is the case of most card networks and not the case of most advertising platforms.

Dirk Auer and Nicolas Petiti: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Ex : SSNIP test

Regardless of the approach followed, authorities will have to decide how to allocate the 10% price increase among different groups of users.

In the First Data case, the DoJ argued that a hypothetical monopolist would raise prices by 5- 10% on the acquiring banks side (and hence to merchants), and held the price to issuing banks fixed.

Dirk Auer and Nicolas Petiti: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Ex : SSNIP test

Market definition is also complicated when one side receives the platform's services free of charge.

A platform may charge its entire transaction fee on one side of the market only.

In such cases, should the SSNIP only be applied to the "money" side? And what if the price increase were also applied, in full or part, to the other side ? 10% or less of zero is still zero.

Dirk Auer and Nicolas Petit: Two-sided markets and the challenge of turning economic theory into antitrust policy'', The Antitrust bulletin, October 6 2015

Ex : assessing market power in two-sided markets

High profit margins on side A are not necessarily evidence of market power (or indeed of efficiency).

However "competitive bottlenecks" may appear if users on side A single-home. This allows the platform too charge multi-homing users on side B a monopoly price to reach these users.

As explained by Rysman (2007) the presence of multi-homing on one side of competing platforms influences the degree of competition.

Whether agents at both sides of a platform participate in multiple platforms or just one has important implications for market power.

If one side of a market practices singlehoming, then the only way for the other side to reach those agents is through their preferred platform.
Thus, platforms have monopoly power over providing access to their single-homing customers for the multi-homing side.

This monopoly power naturally leads to high prices being charged to the multi-homing side and typically there will be too few agents on this side being served from a social welfare point of view.

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Fallacy 1: An efficient price structure should be set to reflect relative costs (user-pays).

Taking nightclubs as an example of a two-sided market, **an efficient structure of fees** between those charged to men and those charged to women **should not only take into account the relative costs of serving each type of user, but it should take into account the surplus that men enjoy when additional women are attracted (and vice-versa).**

If the surplus obtained by the male clientele from attracting an additional woman to the club is greater than vice-versa, then an efficient price structure will generally require that the price be lower for women than for men.

Given these preferences, if prices are set equal, one might expect a club with at least as many men as women. Attracting an additional woman to the club raises the surplus to the existing men more than attracting an additional man to the club raises the surplus of the existing women.

An efficient structure of fees will reflect this fact. In contrast, **the principle of user-pays is not efficient in such a market.**

Fallacy 2:Competition necessarily reduces price to costs

A related fallacy arises from another basic principle of economics that can be misapplied to two-sided markets – the idea that competition should reduce prices to cost.

Clearly, it is not true that competition, even perfect competition, will necessarily drive the price charged to each type of user to cost. **As noted above, competition between nightclubs may result in men being charged above cost and women below cost.**

The observation that men are charged above cost does not, therefore, imply anything about the market power of the nightclub.

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 2: example

Rochet and Tirole state: "In agreement with Katz (2001), we in particular explain why there is no economic rationale for cost-based regulation of IFs"

"**The OFT's preliminary conclusion is that MasterCard has not justified the level at which it has set its MIF**. The OFT accepts that the MIF could be justified if it was set a level which covered the costs of the payment system services which issuers provide to merchant acquirers and retailers.

These payment system costs would include the costs of processing transactions, for example.

However, **the MasterCard MIF has been set at a level much higher than these costs**." (Office of Fair Trading, MasterCard Interchange Fees – Preliminary Conclusions, February 2003 at 3.12)

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 2: example

"Competitive pressures in card payment networks in Australia have not been sufficiently strong to bring interchange fees into line with costs."

(Reserve Bank of Australia and Australian Competition and Consumer Commission, Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access, October 2000)

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 3: A high price-cost margin indicates market power.

Arguably, the ability of nightclubs to profitably set a price to men above marginal cost indicates they have some kind of market power over men (even though they make an offsetting loss on women). Thus**, if one could define a separate market for men and women, then nightclubs which attract women might be found to have market power over men.**

 The problem with such an approach is **that the presence of market power does not necessarily relate to any restriction of output, its ability to restrict competition, more general market failure, or even any deviation from the perfectly competitive benchmark for nightclubs**. **It is therefore not useful to follow such an approach**.

To draw sensible inferences about (harmful) market power through price-cost margins, loosely speaking one would need to demonstrate that the sum of fees to men and women could be profitably raised permanently above the costs of providing the service to both men and women..

Fallacy 3:Example

Amex's imposed what can be thought of as a rule of card neutrality: if a merchant accepts American Express – which might attract shoppers – it cannot then encourage shoppers to use a competing card network that charges lower merchant fees.

The Court (…) reported that merchant fees had increased in the period that followed the introduction of anti-steering provisions by Amex and other card networks. **(United States of America et al. v. American Express Company et al., No. 10-CV- 496 (NGG) (RER), at 114 (United States District Court Eastern District of New York, February 19, 2015)**

Such a finding is in itself insufficient to derive that Amex's behaviour was anticompetitive. **A price increase on one side of a platform can increase overall output. (…) Clearly, increased merchant fees have the potential to harm consumers, including cardholders. But they also have the potential to promote card use and efficient shopping. Which of these effects dominates invariably hinges upon case-specific assessments**.

Dirk Auer and Nicolas Petit: Two-sided markets and the challenge of turning economic theory into antitrust policy", The Antitrust bulletin, October 6 2015

Fallacy 4: A price below marginal cost indicates predation.

In nightclubs sometimes the cover charge women face is permanently set at zero, which is clearly below marginal cost.

However, far from representing predatory pricing, below-cost prices may be used to generate greater surplus by attracting those users (women) that provide the greatest benefits to the network of other users (men).

While such a price structure may represent an attempt by a firm to attract greater market share, since prices can be profitably retained below cost, it would make no sense to think of this as predation.

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 5: An increase in competition necessarily results in a more efficient structure of prices.

A single (monopoly) nightclub will still have an incentive to set a lower entry fee for women compared to men. Such a nightclub can capture the greater willingness of men to pay, when it attracts additional women. Thus, there is no a priori reason to think that in general, greater competition will result in a more efficient structure of prices. **While competition will lower the overall level of prices charged to men and women, competition could result in a structure of prices (the relative level of entry fees charged to men and women) that is closer to, or further away, from the efficient structure**.

Thus, while in normal markets antitrust is designed to protect the workings of competition (and so desirable outcomes), it is not clear that competition will result in (or is needed for) efficient price structures.

Fallacy 6: An increase in competition necessarily results in a more balanced price structure.

Anything-is-possible. Competition could lead to a more balanced price structure, but it could just as well lead to a greater imbalance in prices. Which outcome is more likely to arise will likely depend on the specifications of demand and how competition interacts with the demand of each type of user.

For instance, if men tend to be loyal to particular bars, then greater competition between nightclubs might be reflected in a lowering of the price on the more competitive female side (resulting in even more imbalanced prices).

On the other hand, if women tend to go to several bars during the same evening, then greater competition between bars could manifest itself in lower prices to men who only need to be attracted to one bar given that women will frequent many.

Fallacy 6: Example

"In Australia, credit card interchange fees are not determined by a competitive market. **While it is possible that a collective process may lead to interchange fees being set at an efficient level, the conditions under which this is likely to occur in practice – strong competition between credit card schemes, strong competition between credit cards and other payment instruments, and a balance of issuing and acquiring interests in the fee-setting process – do not prevail in Australia. …** Where the competitive environment is not robust, the risk is that collectively set interchange fees can be above an efficient level …"
(Reserve Bank of Australia and Australian Competition and Consumer Commission, Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access, October 2000)

This statement suggests that the RBA holds the view that greater competition between schemes will result in more symmetric prices (Fallacy 5).

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 7: In mature markets (or networks), price structures that do not reflect costs are no longer justified.

Setting prices below cost for one type of user (and above cost for the other) may be justified in the start-up phase of a network as a way to overcome a chicken-and-egg type problem.

However, even once a nightclub has established a base of regular clientele, it will still be beneficial for the nightclub (and for overall efficiency) if lower prices are set to women and higher prices are set to men if an additional female provides greater surplus to male patrons than vice-versa.

Thus, a chicken-and-egg problem is not necessary to explain why in two-sided markets prices may efficiently deviate from cost – if it was, nightclubs would not offer discounted entry to women once they are well established.

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 7: example

"Interchange fees may have played an important part in the development of these networks, but by their nature they have done so by reducing the potency of the normal market mechanisms which determine consumer choice and resource allocation. While a pricing system based on interchange fees still seems to be the most practical arrangement for the credit card network, the levels of interchange fees are high relative to costs and fees of this magnitude are not essential to the continued viability of this network."

(Reserve Bank of Australia and Australian Competition and Consumer Commission, Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access, October 2000)

JULIAN WRIGHT, One-sided Logic in Two-sided Markets, Review of Network Economics Vol.3, Issue 1 – March 2004

Fallacy 8: The asymmetric price structure means that there is cross-subsidy between the two sides

Another fallacy arises if the asymmetric pricing structure that platforms set to promote demand on their networks is misinterpreted as an economic cross-subsidy.

The economic cross-subsidy in the case of nightclubs would seem to run from men to women.

That ignores the fact that the service that is being provided to each type of user depends on whether the service is also provided to the other type of user. The removal of the service to either men or women may result in a loss of all revenues to the nightclub given that without attracting both types of users, nightclubs will not attract either. In this case, the additional revenue obtained from offering the service to women in addition to men is actually the total revenue obtained by the club. This means the revenue generated from each type of user will more than cover their incremental costs, and hence there cannot be any cross-subsidy.

Fallacy 8: Example

"A greater contribution by cardholders to the costs of using a credit card would provide scope to lower interchange fees, merchant service fees and prices of goods and services. The present fees charged to merchants are ultimately passed on to all consumers – not just those using credit cards – in the form of higher prices of goods and services. **In effect, credit card users are being cross-subsidised by other customers. One way of ensuring that cardholders bear more of the costs is through increases in direct charges by card issuers**."

(Reserve Bank of Australia and Australian Competition and Consumer Commission, Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access, October 2000)

Fallacy 9: Regulating prices set by a platform in a two-sided market is competitively neutral.

Forcing a platform to set a lower price on one side of its business may not result in its rival(s) following suit. The unregulated platform will not want to match a suboptimal structure of prices imposed on the regulated platform. This may provide the unregulated platform(s) with a competitive advantage, even though in a one-sided context regulating lower prices for one firm does not generally advantage their unregulated rival(s).

Suppose a certain group of nightclubs is banned from running ladies-nights, perhaps on the grounds these discriminate against men. Will the remaining bars still want to run ladies-nights or will they be driven to charge men the lower amounts now charged by regulated bars? For the very reason ladies-nights are a way to attract more business, the remaining bars may still want to charge women less and men more.
(…) Overall, the unregulated firms may increase their market share and profits as a result of the regulation.

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Conclusion

1) The conditions for two-sideness are strict. Thus caution shoulld be exercized before discarding traditional competitiion analysis . In particular, two sidedness requires that there is no possibility   (or minimal possibility) for the two groups of consumers catered to the platform to alter the allocation of costs decided by the platform through side payments. Just because a platform caters to two groups of consumers . Thus the applicability of the concept may be less wide than what is sometimes argued.

2) The two-sided ness of a market may be more or less pronounced and may depend on the legal environment

3) For two-sided markets, the traditional   tools of antitrust (such as the SSNIP test for defining markets, the Lerner index, the price-cost margin etc….) are likely to be misleading unless they are adapted.

Conclusion

4) However the adaptation of the traditional tools of antitrust analysis may be complex or problematic.

5) Analysis that do not take into account the interdependency between the two sides of the market or that look at each side of the two-sided market separately should not be trusted. They will lead to fallacies..

6) The key elements to understand   competition on two-sided markets are: the nature and intensity of the interaction between the two sides and whether each side single -home or multi- home. Thus a lot of information on the behaviour of actors on each side and on their relation to the other side will be required.

Thank you very much

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