

THE THEORY OF TWO-SIDED MARKETS: AN ECONOMIC BUBBLE?

Pros and Cons,
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THIS PRESENTATION

Main points

Words of caution

Two-sided markets theory is not the new black

Outline

Uprisings, Fables, Zombies and Bubbles

UPRISINGS, FABLES, ZOMBIES AND BUBBLES



THE LITERATURE

Failed « *uprisings* »

- contestability theory (Martin, 2000)?

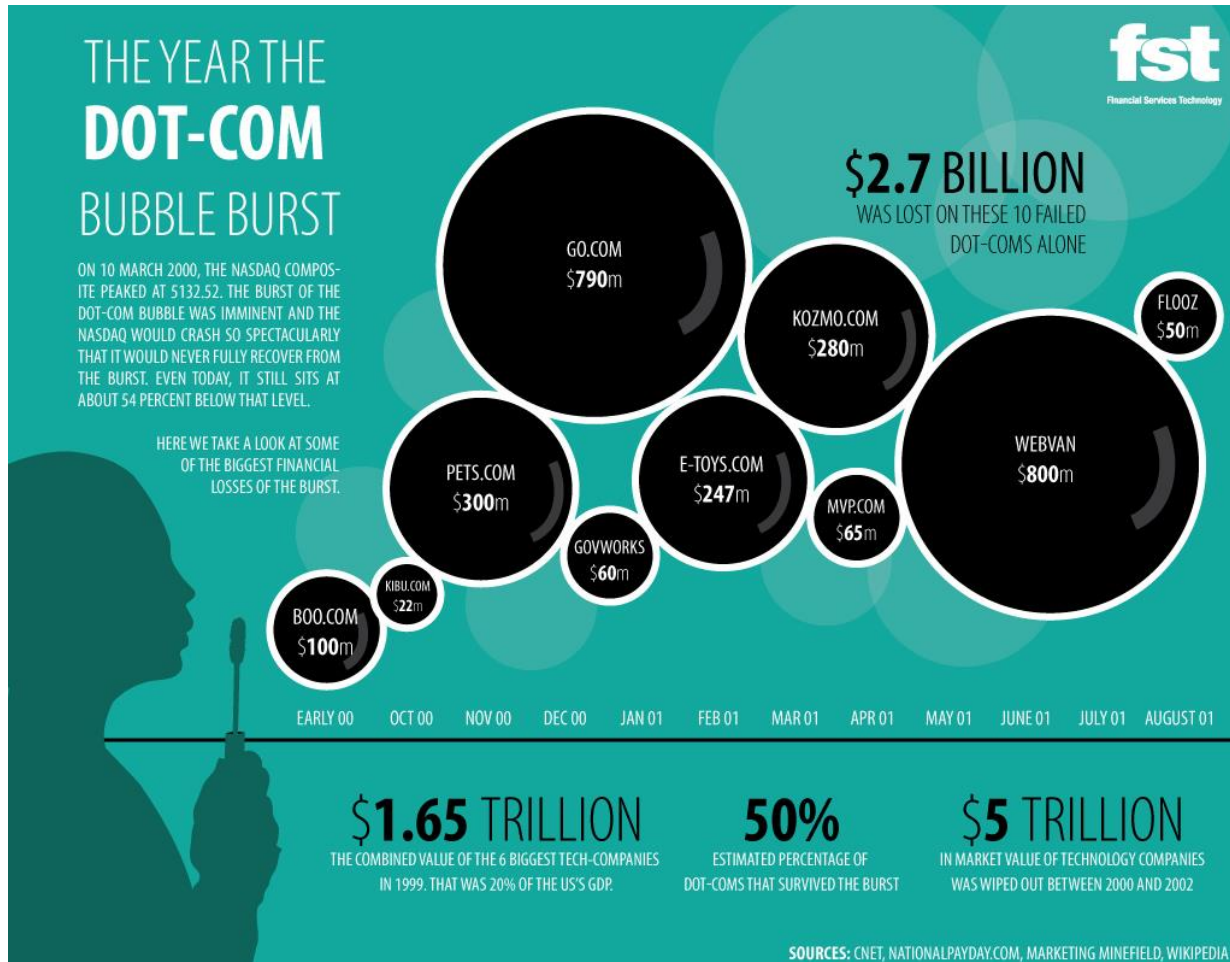
Fables

- Acquisition of Fisher Body by General Motors (Coase, 2000)
- QWERTY v Dvorak keyboard (Liebowitz and Margolis, 1999)

Zombies

- Efficient market hypothesis (Quiggin, 2010)
- Competitive firms price at MC (Coase, 1946)
- Patent=monopoly (Kitch, 1986)

A BUBBLE?



« Policy bubbles » (Moar, 2013)?

EPISTEMOLOGICAL ASSESSMENT OF TWO-SIDED MARKETS THEORY

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SCP PARADIGM AND REFINEMENTS

IO studies impact of industry structure (in the strict sense) on price and output levels

- Marshall, Cournot, Chamberlin, Mason and Robinson
- Harvard
- Chicago
- Post-Chicago

Modern scholarship focuses on the organization of industry in the large sense, including in terms of firms' strategy, products' characteristics, customer preferences, Government interference, etc.

TWO SIDED MARKETS THEORY

Seminal papers: Caillaud and Jullien (2003), Rochet and Tirole (2003 and 2006), Armstrong, (2006)

« *Chicken and egg* » problem

Rochet et Tirole find that for a given (total) price level, **output can increase “by charging more to one side and less to the other relative to what the market delivers”**

Set the price structure **not only level** to get all sides on board

Price “**decomposition or allocation**” is critical (in IO, focus on price level)

Subsidy side and money side

RELEVANCE (I) — RT 2003

Normative?

Rochet and Tirole themselves seem to doubt it: the fact that the price structure affects economic efficiency is a “*widespread belief*” and already a “*premise*” for many policy interventions

Descriptive!

Purpose was different

As Stigler once put it, they sought “*to explain economic life*” in the plain tradition of IO scholarship

How platforms in distinct environments decide the pricing allocation between the two sides of the market

RELEVANCE (II) — RT 2006

RT 2006 took an additional tack, *ie* give a stylized **definition** of two-sided markets, and of the necessary conditions for their existence

1. There must be indirect network externalities (or cross-platform externalities)
2. Users of the platform must not be able to enter into Coasian transactions
3. Users must be prevented from negotiating away the actual allocation of the burden through bilateral bargaining or thanks to monopoly power
 1. User A can pass over to user B part or all of the access charges/transaction fees to the platform in a side payment (airlines can transfer access charges to airport users?); monopoly is a possibility
 2. Reduces or undermines output effect

ASSESSMENT

Price theory

That the “*price level*” is not the sole determinant of output is an old economic idea

- Price discrimination theory tells it (Baumol and Bradford, 1970; Varian, 1989; Amrstrong and Vickers, 2001)
- Theory of regulation shows that in industries with common costs, Ramsey pricing expands output
- Welfare economics? => Maximin principle (Rawls, 1971 and 1975)

Coase theorem

Theory refines our understanding of how markets react to externalities short of possibilities of Coasian bargaining (besides vertical integration, regulation, taxation, etc.)

But Spulber argues that the “*decentralized coordination*” that occurs between each group of user through the platform relates to “*Ronald Coase’s description of private bargaining as a means of resolving the problem of social cost*” (2010)!

A LEXICAL BUBBLE?

III

BASELINE

RT 2006 had carefully stressed the specificities of their analysis, and the “*necessity to circumscribe the scope of a two-sided markets theory*”

Unwarranted expansion through multiplication of elusive concepts?

DEFINITIONS (1)

Proliferation

Evans and Schmalensee, 2007: “a *multi-sided 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*”

Rysman, 2009; Parker and Van Alstyne, 2005: a multi sided market exists when there is “some kind of interdependence or externality between groups of agents that are served by an intermediary”

Bubble?

The Spulber footnote (Spulber, 2010):

- In textbook econ, there are two types of markets
 - Decentralized markets, where buyers and sellers interact over the counter
 - **Centralized markets**, where firms act as intermediaries between buyers and sellers
- Scholars like Rochet and Tirole failed to recognize prior art, and in particular, “*the large body of earlier work on intermediated markets or matching markets*”.

Figure 1: The two-sided market with decentralized exchange

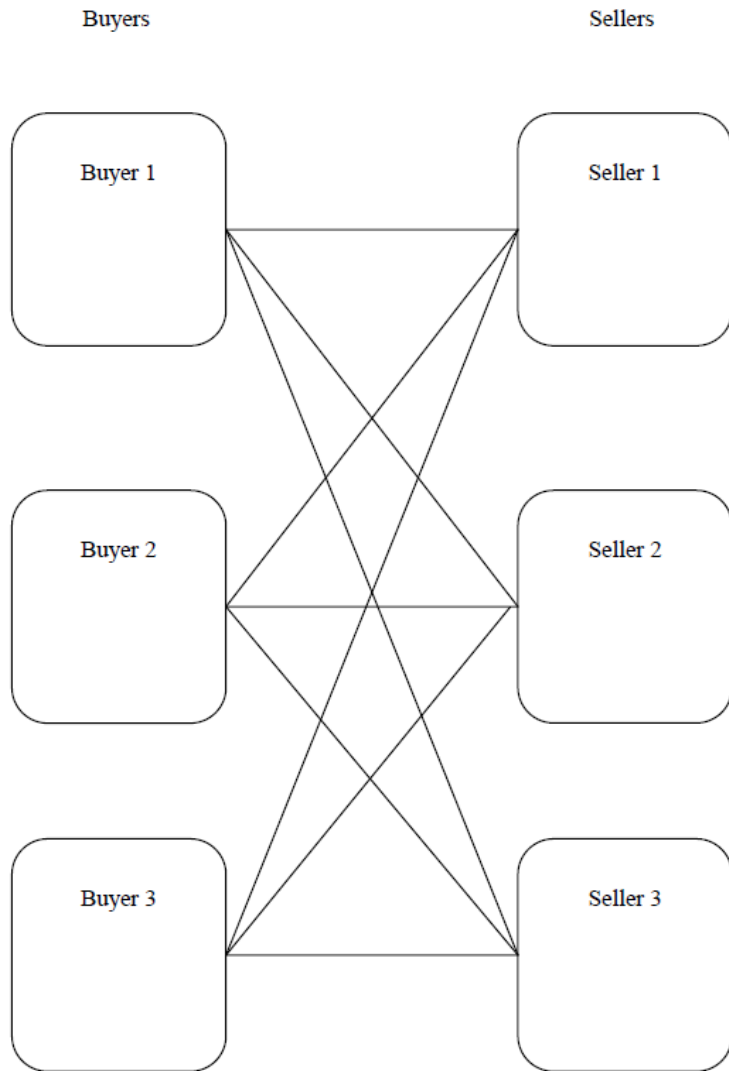
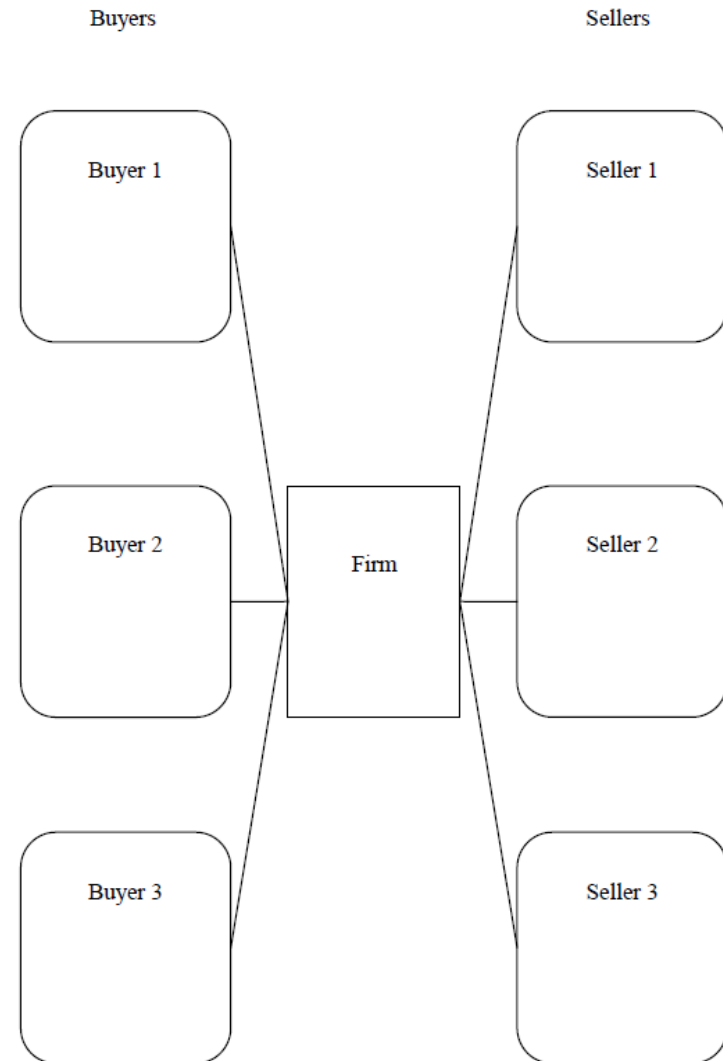


Figure 2: The two-sided market with centralized exchange



REDUX

RT 2006 rightly worried that “*you know it when you see it*”-type definitions would be over inclusive

As they argue, if two-sided markets only exist in situations where Coasian transactions or bargaining between both sides of a platform is impossible, then **parameters that are not readily observable play a critical role in identifying a two-sided market**

A platform’s governance structure, contractual arrangements and legal rules will notably have an important impact on the two-sidedness of a market

Payment systems

- No surcharge rule: 2 sided?
- Free surcharge: 1 sided?

CONCEPTS (2)

The wording

Markets

- to “*platform businesses*”; “*two-sided networks*”; “*multi-sided platform markets*”
- But, the concept of “*platform*” invites the inference that multi-sidedness is intrinsic. False in economic terms. A platform is indeed not necessarily multi-sided

Buyer/Seller

- To “*users*”
- Bartering or absence of payments on one side, thus no purchase or sale in strict sense
- Negative or hidden price. In search, user gives away personal data and incurs costs of advertisement externality

The problem

Not merely semantics

- Distinguishing relevance of the “*buyer-seller*” v “*user*” and “*market*” v “*platform*” wording
- If one thinks of the economy as a world of “*platforms and users*”, then a football club looks like a two-sided business
- If one thinks of the economy as a world of “*firms with buyers and sellers*”, then a football club does not look like a two sided business, but like a plain vanilla corporation

EXAMPLES (3)

The core

RT 2003 and 2006: software (video games), portals and media (newspapers), payment systems, and a bunch of other illustrations

Matching markets (Caillaud and Jullien, 2003)

Newspapers

And the indefinite periphery

Expos and trade fairs, TOEFL exams to students and universities, real estate agencies, airports, stock exchanges, credit rating services, academic publishing, ranking websites, conferences, pools and industrial standards

Disagreements

Curiosities

	Rochet and Tirole (price structure matters and inability to negotiate away part or all of the price allocation (incl. absence of a seller monopoly))	Schmalensee and Evans (two or more groups of customers; need each other; cannot capture the value of mutual attraction; rely on a catalyst)	Rysman, Parker and Van Alstyne (definition does not matter, externality between groups of agents that are served by an intermediary)
Payment systems	Y (unless surcharging is permitted?)	Y	Y
Video games	Y	Y	Y
Online recruitment	N	Y	Y
Operating system	Y	Y	Y
Shopping malls	N	Y/N	Y
Airports (and low costs?)	N	Y	Y
Credit rating services	N	Y	Y
Retail electricity	N	Y	Y
Supermarkets	Y	Y	N
Academic journals (authors and readers)	Y	Y	Y
Gasoline powered engine/electrical engine	N	N	Y
Conferences	Y	Y	Y
Franchising (absent RPM)	N	Y/N	Y
Collecting societies	?	?	?
Industrial standards and pools	N/Y	Y	Y
Highways and turnpikes	N	N (drivers don't need highways to find petrol stations a vice versa; it is just convenient to have them there)	Y

TAKE AWAY

Paradoxical consequences

Theoricization with « bandwagon » effect
in academic literature

Irrelevancy with scope expansion

Tirole's classic textbook

“even a theorist should regret the very high ratio of theory to evidence in a field which is often lacking in generality and in which practical implications are so crucial”

adding though that the evolution is also
healthy

ANTITRUST POLICY IMPLICATIONS

Antitrust agencies are like investors

Boom or bubble?

Risk of making mistakes

Review two types of cases

1. Two-sided markets cases where the theory was taken into (some) account
2. Two sided market cases where the theory was not (clearly) taken into account

1. TWO-SIDED MARKETS CASES WHERE THE THEORY WAS TAKEN INTO (SOME) ACCOUNT

CJEU, *Groupement des cartes bancaires*

Measures taken by platform to induce firms to balance their issuing and acquiring activities

Fees on issuing banks that free-ride on acquiring banks

Commission and GC find a restriction by object in issuing market

Upper Court: Both GC and Commission should have taken big picture into account (legal and economic context). If acquiring side had been considered, no longer possible to find the fees were “*by their very nature*” injurious of competition

Effects analysis: if there is a two-sided market, their might be an efficiency on another market, which prevents the application of forms-based reasoning, and requires an effects reasoning

CJEU, *MasterCard*

MIFs that acquiring banks pay to issuing banks allegedly to cross-subsidize cardholders

Inflate fees charged to merchant, as a fee-floor/lower limit => restrictive effect on competition

No need to consider the output effect on the other side of the market (issuing)? Too complex a trade-off?

A little inconsistent with *Groupement des cartes bancaires*: An out of market efficiency can be taken into account to discard an allegation of RO, but will not be looked at in a RE case???

But at any rate, customers of merchants who are both cardholders and non cardholders are harmed, through merchants increase in operational costs (w or w/o no surcharge)

2. TWO SIDED MARKET CASES WHERE THE THEORY WAS NOT (CLEARLY) TAKEN INTO ACCOUNT

Microsoft, 2004 (tying)

- Many of the features of a 2S market
- Case more known for its application of behavioral economics
- Commission and Court recognized indirect network externalities (« positive feedback loop »)
- 2S market theory could have given justifications to MSFT? But little place for them anyway?
- Would not have changed much

2. TWO SIDED MARKET CASES WHERE THE THEORY WAS NOT (CLEARLY) TAKEN INTO ACCOUNT

E-Books, 2012 (hub and spoke)

E-books publishers seek to prevent Amazon's new 9,99\$ pricing

Wholesale business model, pressure on publishers' margins

Urge to convert Amazon to agency

Conclude agency deal with Apple, and MFN clause

Strategic commitment

Renegotiation with Amazon, and conversion to agency

2S-1S?

Commission applied 1S logic

Conversion to agency moves market from 2S to 1S? Is this an antitrust concern???

But Armstrong's competitive bottlenecks model (Armstrong and Rysman, 2007) could have helped

- Before agency: exploitation of multi-homing sellers (downward pricing pressure) and low prices for single homers (readers);
- After agency: Apple's exclusive deal triggering foreclosure, and subsequent exploitation of readers
- Dispensed to establish collusion?

CONCLUSIONS

Cons

More empirical work is needed

- Advice to economists: revisit case-law, and test *ex post* added-value of theory

Normative implications remain shrouded in mystery

- Advice to economists: frame questions in normative terms; more discipline on wording
- Advice to lawyers: dive in descriptive economic papers; embrace modern effects-based standards

Pros

Antitrust law often misses the forest for the trees

Moves antitrust economics beyond the boundaries of narrow relevant market analysis

In many relevant markets, Google, FB, MSFT and Apple are not competitors in antitrust parlance!

Competition takes place in larger battle-fields than microscopical relevant markets

Two-sided markets helps take distance from relevant markets, and understand bigger picture