WHAT’S DIFFERENT?
Firms Are Different

A traditional firm buys “raw material”, makes stuff, and sells it to consumers.
Toyota makes cars, sells to consumers.

A multisided firm recruits one type of customers, and makes those customers available to another type of customers. The customers are the raw materials.

BlaBlaCar gives drivers and passengers access to each other.
Economics Are Different

The demand by one group for the business depends on the interest (and therefore the demand) of the other group for platforms.

Passenger demand depends on availability of drivers. Driver demand depends on availability of passengers.

The demand of each group is dependent on the demand by the other group.

Fewer drivers reduces demand by passengers. Fewer passengers reduces demand by drivers.
Formulas Are Different

**Single product firm profit function**

\[ P = (P_1 - C_1) D_1(P_1) \]

**Two-sided platform firm profit function**

\[ P = (P_1 - C_1) D_1(P_1, Q_2) + (P_2 - C_2) D_2(P_2, Q_1) \]

Two-sided case is mathematically very different than single-sided case *because of interdependent demand.* (This is basic Armstrong (Rand 2006) model but point is general and robust.) **THIS DIFFERENCE IS A BIG DEAL. WRONG FORMULA=WRONG RESULTS.**
Facebook’s six sided platform competes for advertising spending and user time with other platforms, some of which are social networks but others of which aren’t.
Capital costs of entry are low.

Disruptive innovation can reach global scale quickly.

Platforms add sides, features, to compete with each other crossing market boundaries.

New technologies like mobile, AI, IOT, opens new possibilities for disruptive innovation.

Many platforms look different but basically compete intensively to harvest “attention” from people which they then compete to sell to advertisers.
### Market Power May Be Fragile for Matchmakers

<table>
<thead>
<tr>
<th>Future Matchmaker?</th>
<th>New Matchmaker</th>
<th>Old Matchmaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Chrome</td>
<td>Apple iOS</td>
<td>Windows</td>
</tr>
<tr>
<td>Amazon Alexa</td>
<td>Google Search</td>
<td>Ad-supported media</td>
</tr>
<tr>
<td>Google Driverless Cars</td>
<td>Uber</td>
<td>Taxi companies</td>
</tr>
<tr>
<td>WhatsNext?</td>
<td>WhatsApp</td>
<td>Telco voice/SMS</td>
</tr>
<tr>
<td>Messaging Bots</td>
<td>Amazon Marketplace</td>
<td>Shopping malls</td>
</tr>
<tr>
<td>Blockchain Platforms</td>
<td>BATS</td>
<td>NYSE</td>
</tr>
</tbody>
</table>
PREDATORY PRICING
Traditional Firms: Price less than marginal cost does not maximize short-run profits—it is abnormal—and is consistent with firm trying to drive rivals out of business to secure long-run monopoly.

Multisided Firms: Price less than marginal cost to one group of customers often does maximize short-profits—it is normal—so does not necessarily cause any concerns.
Platforms Can Have Money And Subsidy Sides

Money Side

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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<tbody>
<tr>
<td>Price for Side 1</td>
<td>10</td>
</tr>
<tr>
<td>MC for Side 1</td>
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<tr>
<td>Margin for Side 1</td>
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</tbody>
</table>

Subsidy Side

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Price for Side 2</td>
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<tr>
<td>MC for Side 2</td>
<td>6</td>
</tr>
<tr>
<td>Margin for Side 2</td>
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</tr>
</tbody>
</table>
Bottin Cartographes v. Google

Bottin Carto charges developers for access to map APIs.  
*Single-sided firm*

Google gives developers access to APIs for free.  
*Makes money from advertising.  
*Two sided firm*

Google accused of predatory pricing for allowing companies to embed maps for free.  
*Paris Commercial Tribunal agreed*

*Paris Court of Appeals reversed*

“*It may be rational to offer products or services for free on a market not to oust competitors but to increase the number of users on another market.*”  
“*[T]he free business model is quite widespread in electronic markets.*”
Traditional Analysis of Consumer Welfare

Market consists of product under consideration and close substitutes.

Increase in market power from merger or abuse of market power

- raises prices
- reduces output and
- lowers consumer welfare.
Platforms Have Multiple Interrelated Customer Groups

Platform serves distinct customers groups often with different products and services that help bring customers together and facilitate exchange. Increase in price on one side can have offsetting lower price on other side and through feedback effects can increase overall welfare and platform output, and possibly welfare for each group separately.

Side $S$ and side $F$.

Each line is the sum of the prices charged to each side and the farther to the right the higher the total price.

Points on a given line show the relative price charged to each side.

Platform serves distinct customers groups often with different products and services that help bring customers together and facilitate exchange. Increase in price on one side can have offsetting lower price on other side and through feedback effects can increase overall welfare and platform output, and possibly welfare for each group separately.
United States vs. American Express

American Express attracts high-spending customers through rewards program (subsidy side) and makes profit from merchant fees (money side). Prohibits merchants that agree to accept Amex cards from steering Amex cardholders to another card they are carrying that is cheaper for merchant.

U.S. Department of Justice claimed this was anticompetitive vertical restraint that harmed competition in network services market for merchants and raise prices to merchants.

U.S. District Court agreed and found platform market “takes the concept of two-sidedness too far.”

Circuit Court of Appeals, citing two-sided economic literature extensively, reversed, finding that it was necessary to consider both cardholder and merchant side of platform for analysis of market definition, market definition and competitive effects. Consumer welfare analysis has to include both cardholders and merchants.
COMPETITIVE RESTRAINTS AND MULTI-SIDED MARKETS
Apparent competitive restraints on one side might not be so when considering multiple sides

*Traditional Firms*: Restrictions “by object” lead to higher prices

*Multisided Firms*: Competitive analysis should include all sides

What matters is *overall competitive impact*
• Groupement des cartes bancaires CB set a series of penalties on the issuing side to member banks that were not "sufficiently" active in terms of acquisition of merchants or installation of ATMs

• GC: The only relevant market is the issuing side and thus this is a restriction by object

• ECJ: The competitive assessment must extend to *all sides affected by the conduct at issue*.

• CB (and Mastercard) are aligned with Amex
Antitrust Analysis of Multisided Platforms is Burgeoning Field

- **Hot area in economics** with increasing number of theoretical and empirical papers. Taught in all the top departments.

- **An increasing number of cases and investigations around the world** particularly involving online platforms. Competition authorities are relying on multisided analysis.

- **Key decisions adopt multisided framework** including European Court of Justice in *Groupement des Cartes Bancaires vs. European Commission*, Chinese Supreme People’s Court in *Qihoo 360 vs. Tencent*, and U.S. 2nd Circuit Court of Appeals in *U.S. Department of Justice vs. American Express*.

- **Large interest by policymakers**: EC Communication on Online Platforms and the Digital Single Market, Opportunities and Challenges, 25 mai 2016)

Fortuitous intersection of the emergence of the new matchmaker economy and the new economics of multisided platforms.
Suggested reading

Bibliography and info


• Matchmakers: The New Economics of Multisided Platforms https://www.amazon.com/Matchmakers-New-Economics-Multisided-Platforms/dp/1633691721/ref=tmm_hrd_swatch_0?_encoding=UTF8&qid=1484743755&sr=8-1

• Keep up to date on platform economics! http://matchmakereconomics.com

Cases
