

# The economic consequences of digital platforms : some reflections

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*Workers and firms in the platform economy,  
Inapp – Roma, 14 June 2018*

Activity	Some platforms
Agriculture	John Deere, Intuit Fasal
Communication and networking	LinkedIn, Facebook, Twitter, Instagram, Snapchat, Tinder, WeChat
Consumption	Philips, McCormick Foods, FlavorPrint
Education	Udemy, Skillshare, Coursera, edX, Duolingo
Energy	Nest, Tesla Powerwall, GE, EnerNoc
Finance	Bitcoin, Lending Club, Kick-starter
Health	Cohealo, Simplyinsured, Kaiser P.
Work and professional services	Upword, Sitterciy. Fiverr, 99 designs
Retail	Amazon, Alibaba, Walgreens, Burberry
Transport	Uber, BlaBlaCar, Waze, Grab-Taxi, Ola Cabs
Operative systems	iOS, Android, MacOS, Microsoft W.
Travel	Airbnb, Tripadvisor
Media	Medium, Viki, YouTube, Wikipedia, Kindle publishing

# *Types of platforms*

(N. Srnicek, Platform Capitalism, 2017)

- Advertising platform
- Cloud platforms
- Industrial platforms
- Product platforms
- Lean platforms

*Differences...still all are platforms sharing one or more (odd) features*

# Outline

- Economic oddities in the platform economy
  - Labour relations
  - Costs
  - Revenues
  - Competition
- Consequences...the biggest one
  - Economic power and income concentration
- What can be done?

# Labour

Skipped for lack of time and because others will talk about it better than me

# Free inputs

- Data
  - Data as unpaid input
  - Not only in the ad market
  - Data and Machine Learning – from human knowledge to Artificial Intelligence
- Other unpaid work
  - From the network,
  - Kodak at the peak of its business employed 140,000 people and had a value of 28 billion dollars. Instagram was bought by Facebook for 1 billion dollars and employed 13 people. The difference in value per employee depends largely on the network effects. But no income goes to the network ...

# Zero marginal cost

- Revenues can increase without any additional cost
- Extra revenues are entirely extra-profits (or rents...)
- Negative marginal profits possible only with negative prices....
- Winner can take all
- Implications for efficiency

# Revenues

- Revenues not from the service provided
- “Forced barter”
  - The reasons and the story behind the “forced barter” between free services and free data
- Efficiency in the provision of the service cannot even be computed (price equal to marginal cost...)



# Barriers to competition

(joint or alternative)

- Network effects
  - The greater the number of connected people the greater the individual value
- Switch costs
  - If you have all your contacts in Gmail how much would it cost you to switch? From a search engine to an ecosystem.
- Huge capital for new entrants, but.....
  - How much capital would it be needed to start a new Google?
  - But Airbnb, Uber, ecc. have no physical capital at all
- Intellectual property rights

# Consequences

- Huge market shares
  - Platform based tech giants have market shares similar to Standard Oil at the end of 18<sup>th</sup> century: 87% of refined oil for Standard, 75% of online book sales for Amazon, 2/3 of online advertising spending for Google and Facebook....Standard was broken up in 1911
- Sometimes also Monopsony power
  - According to Dube et al (2018) Amazon Mechanical Turk pays work up to 20% less than its productivity. The surplus created by this work is appropriate almost entirely by those managing the platforms
- In short: enormous market and economic power
- Is this due to special merits?

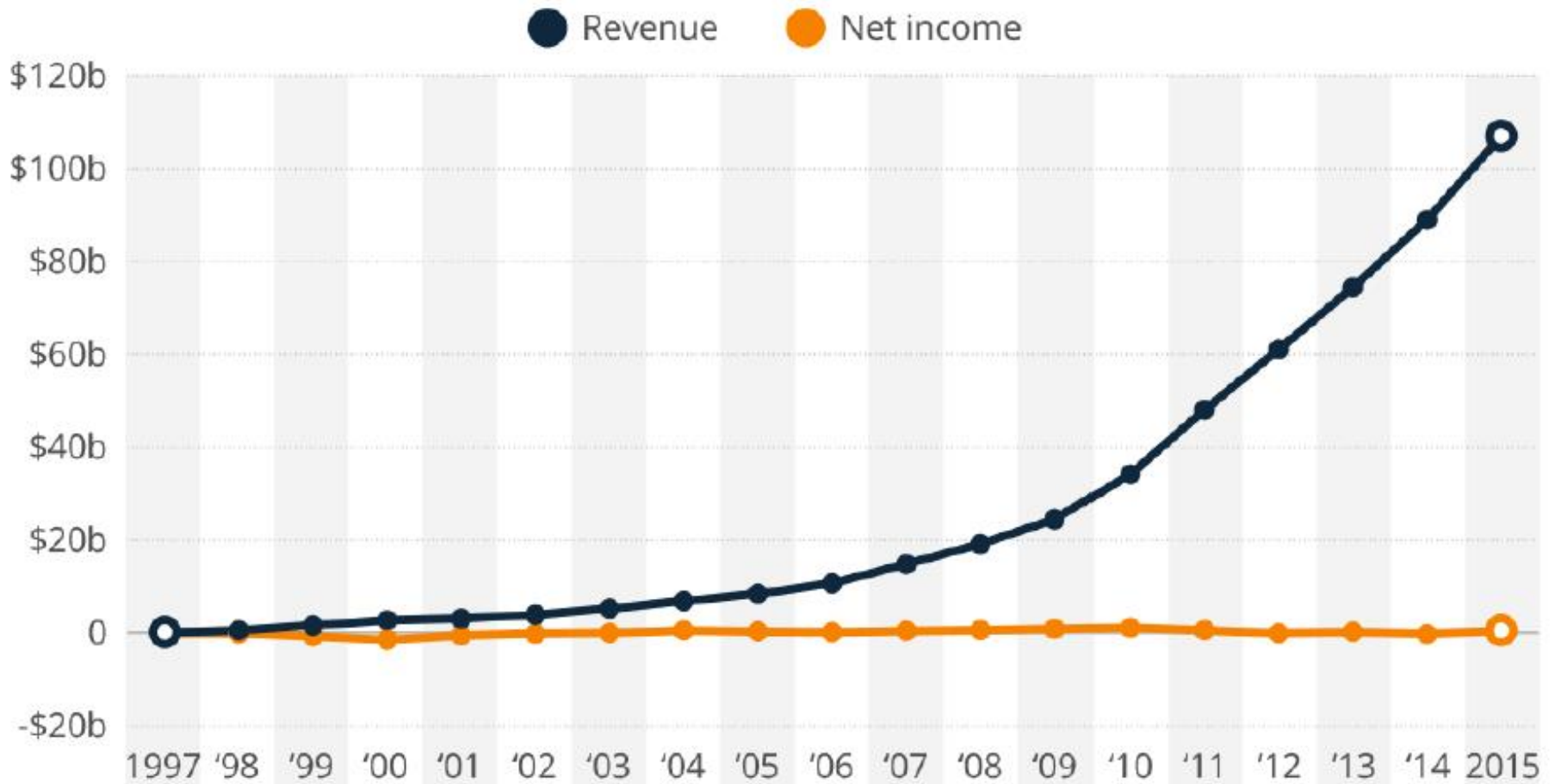
The “use” of economic power.....  
not necessarily to fuel profits

# The Amazon case

	Revenues Billion dollars	Net income Billion dollars	Net income as a share of revenues
2004-2007	40,96	1,61	3,9%
2008-2011	125,96	3,33	2,6%
2012-2015	331,84	5,90	0,2%
2016	135,99	2,37	1,7%
2017	177,87	3,03	1,7%

# Amazon's Long-Term Growth

Amazon's revenue and net income from 1997 through 2015 (in billion U.S. dollars)



# Recent developments

- IN Q1, 2018 net income of \$ 1,6 billion, up 121% in 1 year (revenues increased by 43%)
- Main drivers of profits: Amazon Services (cloud) and Amazon ad
- Is this a U turn? Difficult to say, however net income is still a small share of revenues and enormous power and huge wealth were built up in almost two decades with no profits

# No profits still huge wealth

- Stock prices
  - Today more than \$ 1,600, ten years ago less than \$ 100.
  - In three years they quadrupled.
  - P/E ratio above 200 (“normal” is 30 or less)
- Jassy, the highest paid manager at Amazon, received in 2016, \$ 175,000 as salary and \$ 36 million as stock options
- Bezos has no stock options, only stocks. His salary is \$ 85,000 plus a bonus (security) of \$ 1,600,000.

# The stock market

- How does the stock market work?
- Is Keynes' "beauty contest" the key?
- What about manipulation of expectations?
- If expected growth with ever growing market share is the driving force, what is the responsibility of too loose antitrust policies?



# A wider view on inequality

- Wage share very low in “superstar companies”
- Redistribution from wages to managers’ compensation
- Inequality is also affected by difficulties faced by Start-ups

# True profits?

- Most profits are monopoly profits (above the normal return) leading to monopoly-related wealth (82% of the stock mkt value in 2015 in US – Estimated by Kurz 2017)
- Actually most non-wage income is rent rather than profit (also because capital is lacking in some cases...)

# So what?

- Consumers are better off.
  - *“They love the platform giants”*
- Prices are lower and are not “predatory prices” set below costs to eliminate competitors
  - ...almost impossible if marginal costs are zero
- But if it is inefficient, everyone could be better off (not only as consumer...)
- ...and it is inefficient according to economic theory

# What can be done?

- Break up the monopolies (as in the past)
  - *“We break these guys up because we are capitalists and it is time”* (S. Galloway, a self-professed fan of tech giants).
  - Is it easy?
  - The negative experience with banks before the financial crisis
- Nationalisation
  - *“tinkering with minor regulations while AI companies amass power won’t do”* (N. Srnicek).
- Tougher regulation
  - Change antitrust approach. Low prices cannot be the only criterion
  - Which new rules?
  - The case of free data

# Consequences of free data

- Impaired competition
- Restricted freedom
- Consumer/voter manipulation
- Enormous inequalities
- Inefficiencies (also in the quality of data)

# Data: policy options

- Restricting the use of data (centralization - EU)
- Giving the producer of data the right to prohibit their use (California proposal)
- Taxing the use of data
- Creating a true market of data

# A market for data?

- A full data market if properly working could yield the best results in terms of freedom, equity, efficiency (mainly in terms of data quality) etc.
- But if opportunities, power and consciousness about the working of key technologies (AI algorithms) are unevenly distributed...social groups might be forced to produce (and sell) data with scarce benefits...
- A market demands a clear assignments of property rights, an effective enforcement technology and – when this is the case – prevention of opportunistic behaviour on the part of data producers.
- Difficult? Impossible?...

# Conclusions

- Platforms are changing the functioning of markets and societies. They can lead to serious inefficiencies and inequities, with a huge concentration of economic power
- Radical changes in the institutional settings are necessary to avoid this.
- Such changes cannot but also affect property rights in the broadest meaning.



Thank you

# Platforms as market gatekeepers?

- The control of massive information networks leads to the accumulation of massive market shares and dominant positions
- **Key drivers of market dominance:**
  - i) information-related returns to scale – **network effects** (once the network is settled its enlargement means increasing returns at close-to-0 marginal cost )
  - ii) strategic investments and M&A (platforms fixed assets are mostly aimed at controlling all strategic network nodes and information sources)
  - iii) pushing the 'lean-production' concept to the extreme with massive efficiency gains
  - iv) radical outsourcing of production phases and related risks
  - v) subsidizing and cross-subsidizing demand and supply to ensure market shares accumulation
  - vi) operating within un-regulated environments escaping tax and social security burdens as well as regulation on data protection and competition

*“Amazon, as best I can tell, is a charitable organization being run by elements of the investment community for the benefit of consumers.”*

Matthew Yglesias