

# Unsolved Problems in the Digital Economy: Research

Jacques Crémer

Regulating the Digital Economy Workshop

Toulouse, 12 May 2022

These slides were prepared for support of an oral presentation and *have not* been edited for being read on their own.

Please take this into account when looking at them and get in touch if you have any question.

A 20 minutes rant!!

# When the world was nice and understandable

👉 From Smith to Walras to Arrow-Debreu.



# When the world was nice and understandable

☞ From Smith to Walras to Arrow-Debreu.

☞ Technically

- ➡ If firms and consumers are price takers,
- ➡ equilibrium
  - ▶ exists — the theory is coherent,
  - ▶ and is efficient.

☞ Economically

- ➡ If firms and consumers are “small”,
  - ▶ coordination of economic activity through prices is possible,
  - ▶ and works well.

☞ Prices mean something: they represent the social value and the social cost of goods.

☞ Of course, we know that the economy was not purely competitive, but we could use this as a basis.

## Another way of thinking about the problem



But things do not work like  
this anymore

# The “characteristics” of digital industries

- Increasing returns to scale.
- Switching costs.
- Data.
- Network effects.
- Two sidedness.



## And therefore ...

- ☞ Monopoly is not that bad;
- ☞ Because of externalities decentralized decision making may not lead to efficiency;
- ☞ There is incumbency advantage, but we know very little about it;
- ☞ Prices do not mean too much.

# This is totally disruptive of competition policy and regulation “old style”

- ☞ The real world does not function as general equilibrium theory describes:
  - ➔ incentives to monopolize;
  - ➔ conditions for “perfect competition” are not met in many industries.
- ☞ But it is close enough that the role of competition policy & regulation is to make every industry function as close as possible to competitive ideal.
- ☞ Essential for theory that deviations for competitive ideal be at the margin.

None of this reasoning holds for the digital economy.

## And things get even worse from a Hayekian point of view

- 👉 The acquisition of relevant economic information cannot be approximated as free.
- 👉 Furthermore it is more and more controlled by entities with their own agendas.
- 👉 More and more goods are information goods.

## And things get even worse from a Hayekian point of view

- ☞ The acquisition of relevant economic information cannot be approximated as free.
- ☞ Furthermore it is more and more controlled by entities with their own agendas.
- ☞ More and more goods are information goods.

And do not speak to me about Marshall!

# **Complexity-Minded Antitrust**

Nicolas Petit & Thibault Schrepel



What should we do?

# Two types of research

(Sorry, I am concentrating on theory.)

👉 How do platforms works?

👉 Foundational.

- ➡ We lack research in that dimension.
- ➡ It is important because we should try to understand the world in which we live.
- ➡ It is important for policy purposes.
  - ▶ For instance, the DMA tries to redesign the whole digital industry. We have no tools to think rigorously about the interactions of the different provisions.

## Some topics which really need more work

- ☞ What happens when all information channels are controlled by profit making entities?
- ☞ Incumbency advantage and the stickiness of networks.
  - ➡ Also coordination on new networks.
- ☞ Economies where market places are controlled by profit maximizing entities.
- ☞ Data and the commerce of data.
- ☞ Gatekeepers, in the EU terminology.
- ☞ Theory of the firm adapted to digital economy
  - ➡ Vertical or horizontal integration? Demand side or supply side phenomenon.
- ☞ Increasing returns to scale and the choice of products to sell.
  - ➡ Cloud computing



# Conclusion

- 👉 We are right to do middle to low brow theory.
- 👉 But we also need high brow.
  - ➡ Encourage theorists to work on this.
  - ➡ Encourage intelligence in the criticism of this work.