

# Bocconi

## PRESERVING COMPETITION IN A CHANGING WORLD



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# Competition and competitiveness

- Competition core of process of European integration, from Customs Union to Cassis de Dijon and internal market program.
- All these steps contributed to growth.
- Today growth slowed down, absolute and relative to 'competitors' (mainly US).
- Hence: Relaunch integration/competition: Letta and Draghi reports.



# Plan of talk

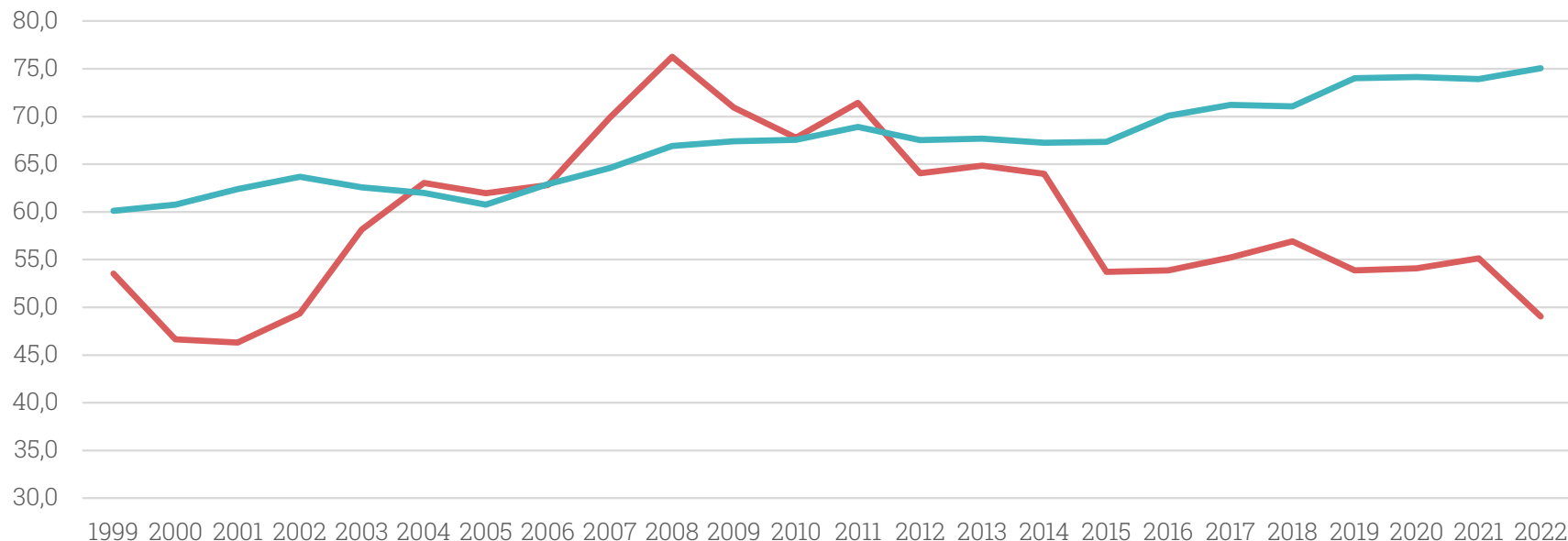
—Cannot address all issues.

1. How to measure economic performance and importance of measuring prices for consumers.
2. What has driven changes in the competitive landscape over last decades?
3. Globalisation + software = winners take most
4. But impact on average profits not clear.
5. Mobile communications as emblematic case of splintered internal market or urban legend?



# Measured in Purchasing Power Europeans live well (=> where is the problem?)

EU per capita GDP as % of US



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— Nominal — PPP

# Nature of Competition

- Difficult concept to measure.
- Empirical work mostly about concentration, mark-ups and profit margins.
- Very little discussion of monopolistic competition. (Now dominant paradigm in international trade (implicitly of goods but concept also applicable to some services, e.g. airlines (time of each flight))).
- In the monopolistic competition model concentration ratio is extreme, but ex ante, profits are competed away.



# Competition versus contestability

- Too little attention given.
- Empirical work just measures ex-post persistence.
- Key issue for completion of internal market is contestability in market for corporate control.
- Especially in industries that are considered strategic (e.g. networks (telecom, power), banks).

# Competition in a **changing world**

- What was key change over last 25 years?
- Globalisation (increased trade, FDI and growth of export markets)?  
And/Or
- Technology, sources of comparative advantage (e.g. proprietary software) and thus market structure?
- Both, interacting.

# Competition in a **changing world** - **globalisation**

- Globalisation is 'pro competitive'.
- Trade flows are now much larger relative to domestic markets.
- Competition on export markets and from imports on EU domestic market has increased.
- Importance of RoW export market has increased relative to domestic EU.
- FDI provides another channel for increasing competition. Third unbundling.





# Competition in a changing world – R&D and proprietary software

- Increased importance of R&D and proprietary software.
- Incentive to invest in R&D and software increases with size of market (globalisation reinforces trend resulting from technological change)
- => Winner takes most environment, race initially won by most productive firms (good), but later entrenchment might stifle competition (bad).

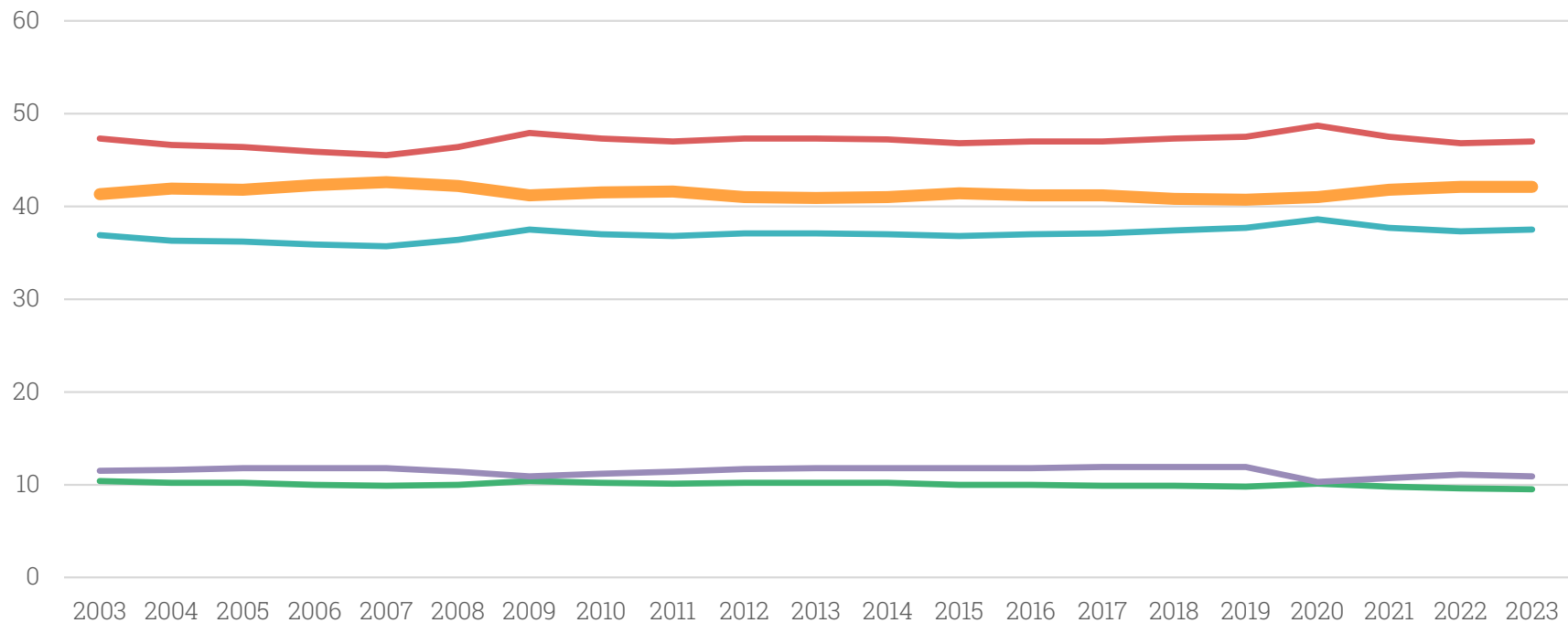


# The rise of global superstars (but few from EU)

**Figure 38: Development of average profit rate of Global Superstars vs. other Fortune Global 500 firms**



# But broad income shares rather stable

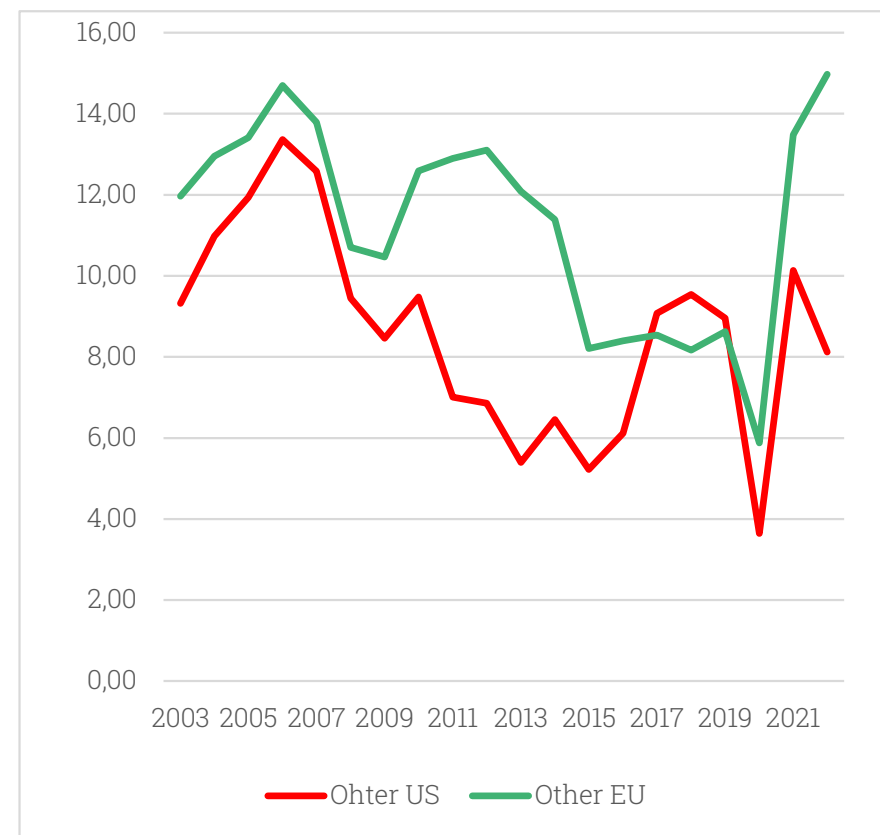


# Profits have increased(?)

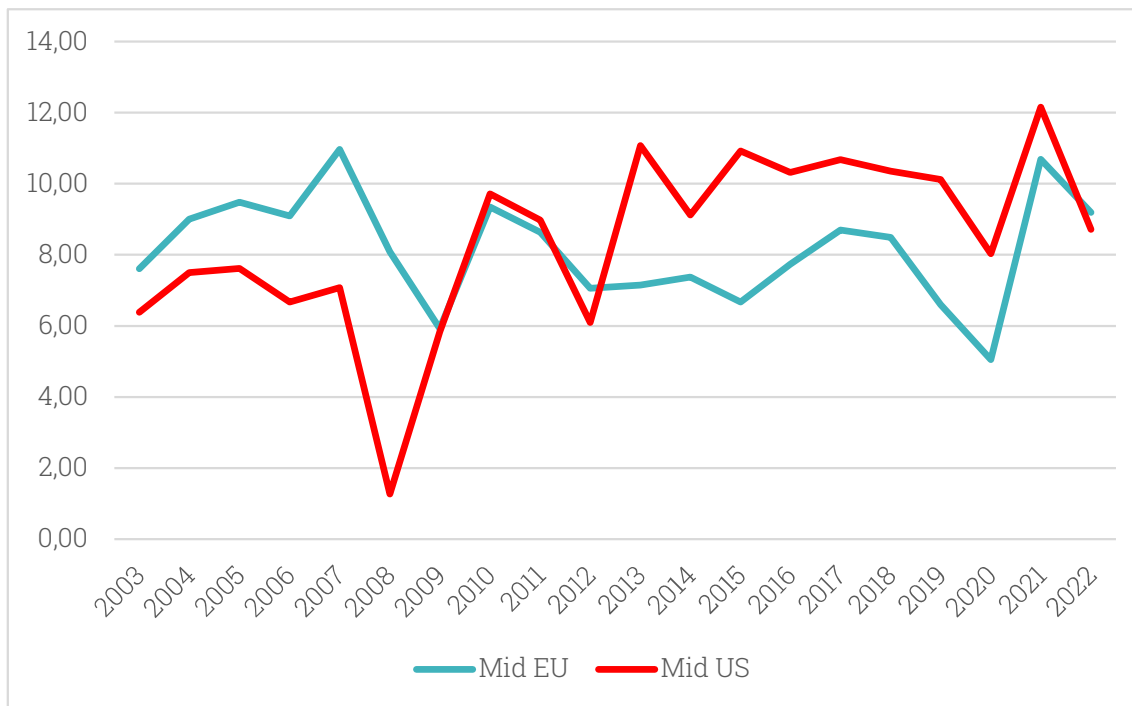
1. Micro versus macro and by how much?
2. Macro: From 2 to 20 % of GDP (Koltay 2023)?
3. But broad income shares roughly constant over last 20 years (wage share not down.
4. Net profits = Net operating surplus (= gross minus consumption of fixed capital) minus interest costs.
5. => Lower interest costs must explain increase in (net) profits given that gross operating surplus has remained flat.



# Evolution of profit rates related to R&D intensity (high-tech up but other (= low tech) down)



# Evolution of profit rates related to R&D intensity: Mid-tech flat (US somewhat higher)



# Profit rates as an indicator of (lack of) competition

- ‘Winner takes most’ pattern confirms with high-tech (now) highest and increasing profit rates, but declining for ‘other’.
- But given the importance of low tech, average profit rates not necessarily increasing, as suggested by macro data on profit share (and Fortune 500 not global leaders).

# (Mobile) Telecommunications important case to illustrate importance of competition

- Textbook case of splintered internal market. Oligopolistic structure in each of the 27 national markets with 3-4 leading competitors => 100 suppliers, little cross border consolidation and little cross-border service.
- US (and China) also oligopolistic (dominated by 3 incumbents).
- But investment (per subscribers) twice as high in US(?)
- Case closed? (Letta and Draghi)





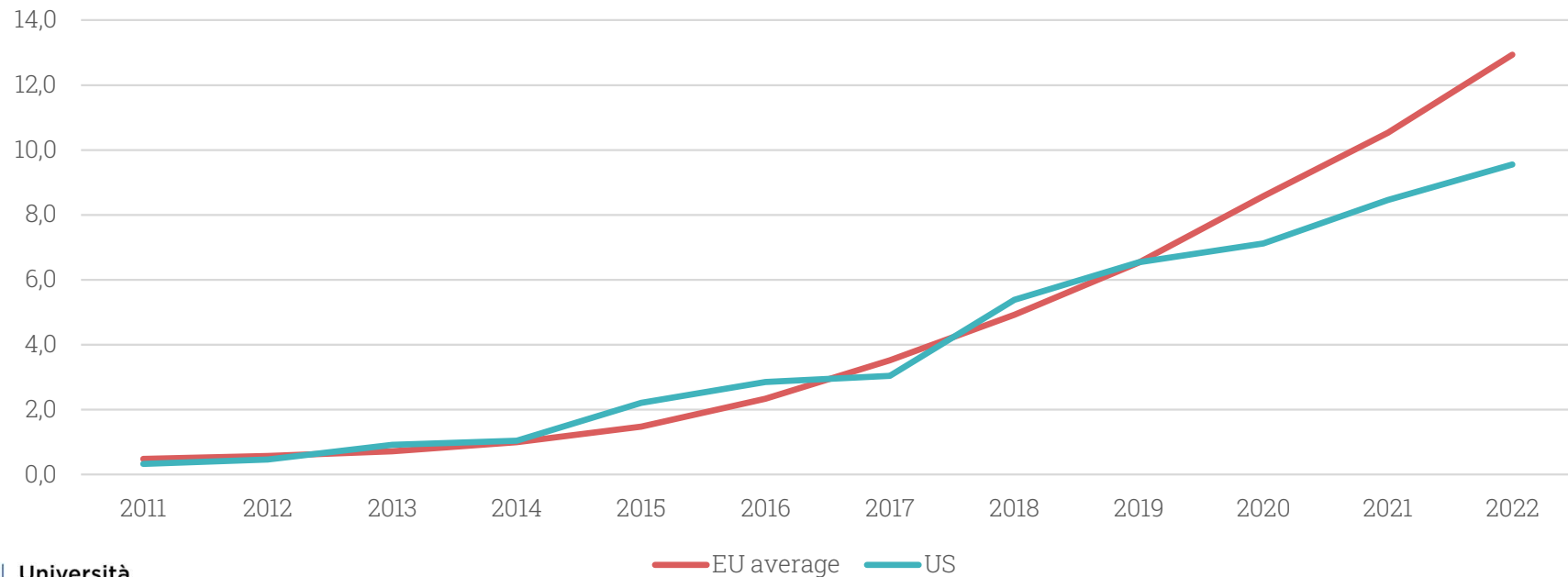
# Nature of (Mobile) Telecommunications sector

- Economies of scale? Need to expand network along with subscribers (at extensive margin).
- Mature industry:
- Almost no R&D spending by Telecom companies (but equipment suppliers do invest and innovate)
- Revenues/investments stagnate in nominal terms (falling relative to GDP) over last years.



# Higher usage in Europe (=> US investment under-utilized?)

Average monthly usage (GB) per subscriber



## (Mobile) Telecommunications: urban legend?

- Analysis of 3 dominant US and 5 biggest EU mobile providers does not show superior US performance.
- EU earlier in G-3, now late in G-5.
- US firms much larger. If economies of scale important, they should be more efficient.
- Capex/revenues slightly higher in EU (17 versus 14 %). (Study finds similar results.
- Profit rates lower in EU (6 versus ) %).
- Capex/subscriber lower in EU because of counting of subscribers (shorter period of validity of SIM cards in US)?

# (Mobile) Telecommunications

- Prices higher in US (based on cost to consumer per Gbyte sent (or revenues per subscriber)).
- Usage (GB per subscriber per month) higher in EU than in US.
- => splintered EU market has delivered anyway(?).
- Because splintered or because enforcement of competition rules in each national market?



## Concluding remarks

- Competition key for growth and welfare.
- Strong evidence of 'winner takes most' pattern, reinforced by globalisation.
- Unclear whether profit rates have increased on average.
- But EU little present among global winner.



# Supplementary material

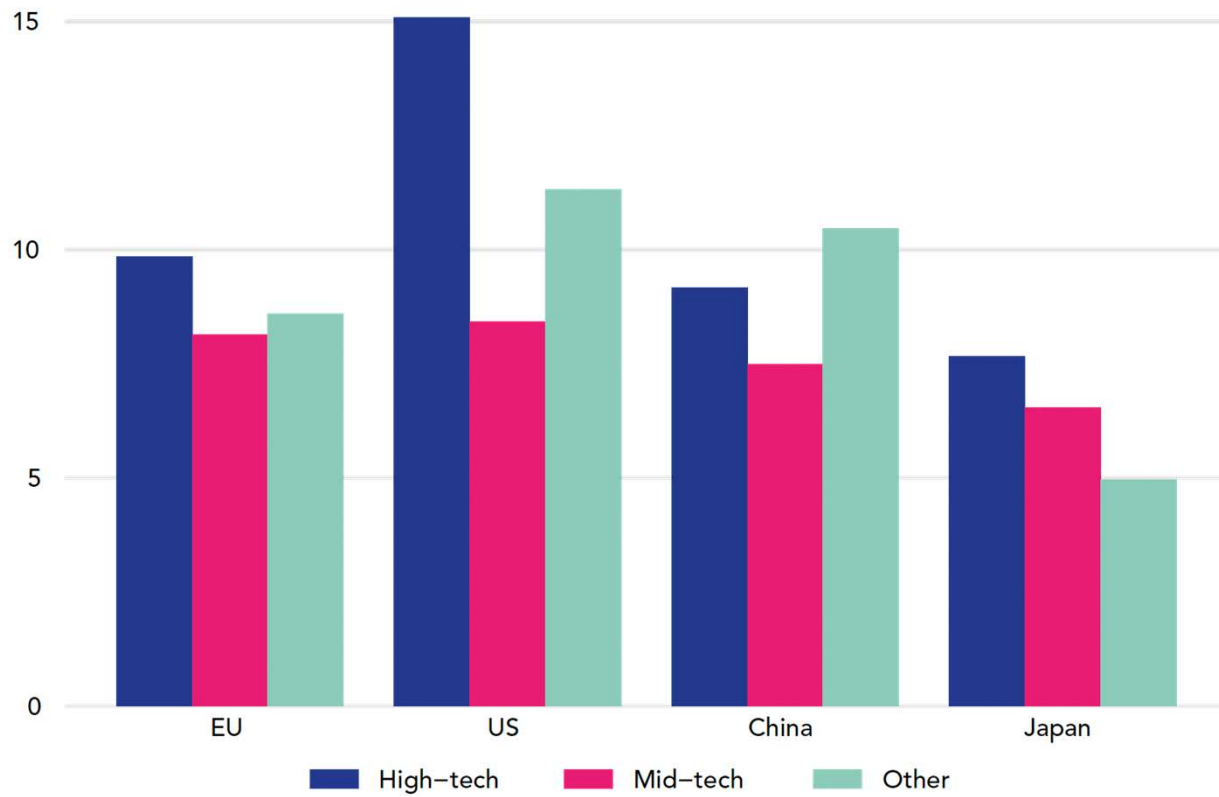
- Comparison profit margins
- Time profile mobile penetration



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Profits margins by technology level (% of sales, 2020–2022)



Source: Industrial R&D Investment Scoreboard.

# Europe not behind in mobile telecom penetration

## Mobile cellular subscriptions (per 100 people) - United States, European Union

International Telecommunication Union (ITU) World Telecommunication/ICT Indicators Database

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