



Liege
Competition
and
Innovation Institute

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FAANGs

1. Two hard questions

1. Can there be competition without competitors?
2. If unseen competition in tech, how to measure it?

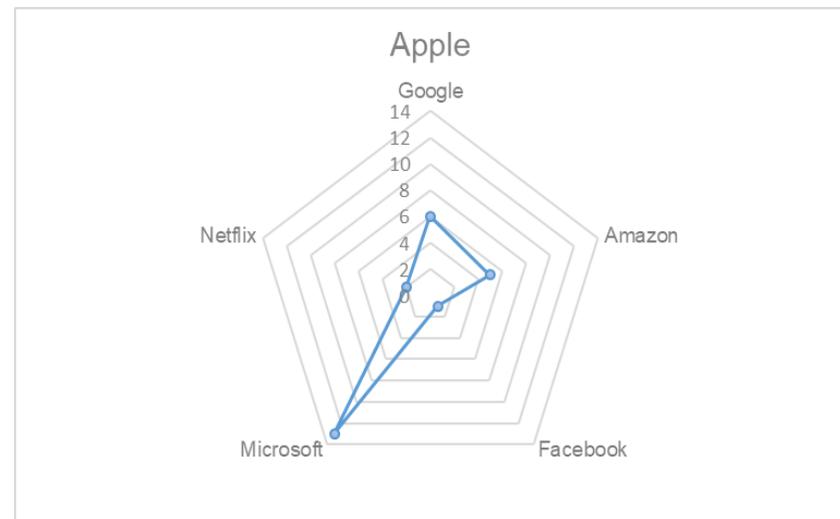
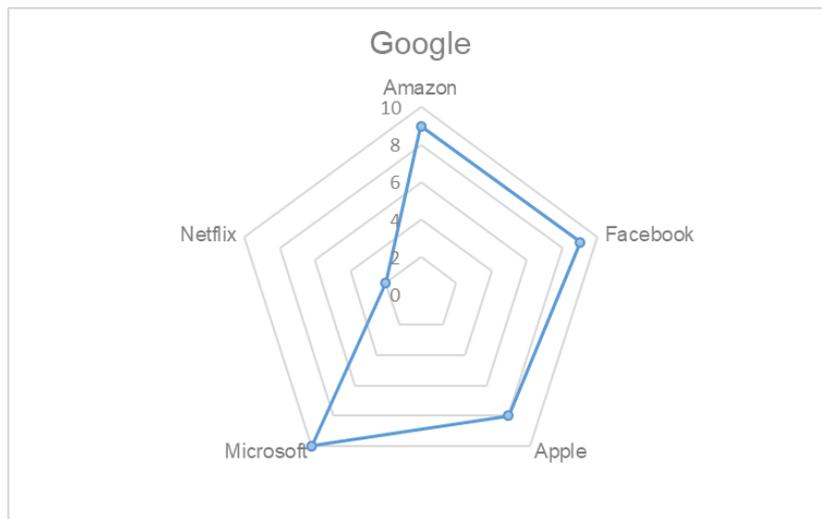
1. Competition w/o competitors?

- ▶ Schumpeter, 1946
 - ▶ *“the businessman feels himself to be in a competitive situation even if he is alone in his field or if, though not alone, he holds a position such that investigating government experts fail to see any effective competition between him and any other firms in the same or a neighboring field and in consequence conclude that his talk, under examination, about his competitive sorrows is all make-believe”*
- ▶ Competition “felt”
- ▶ Applied econ’s construct validity problem
- ▶ Did not carry the day, but structural paradigm challenged by seasoned economists
- ▶ Relevance of « *subjective factors* » to firm behavior (Hicks, 1935, 1954)
- ▶ Monopoly positions obscure existence of discrepancies at firm levels: « *snatchers* » and « *stickers* » (Hicks, 1954)
- ▶ Invitation to assess firm’s degree of effort, rather than structural position and allocative inefficiency (Leibenstein, 1966)

HYP0 and prelim findings

- ▶ Outside of applied competition framework, less findings of FAANG monopoly?
- ▶ Study design, test and data
 - ▶ 10K
 - ▶ Company profiles and industry analysis of 17 financial data providers (D&B Hoovers, CB insights, Thomson One, Owler, MarketLine, Faulkner, Capital IQ, Mattermark, LexisNexis, Google Finance, MSN, Reuters Finance, ICD Research Reports, Plunket, Factiva, Bloomberg, Morningstar)
- ▶ Observations
 - ▶ 4D competition « across » industries or « all markets »
 - ▶ Conglomerates, uncertainty, R&D intensity & serendipity
 - ▶ Heterogeneity at firm level

4D competition

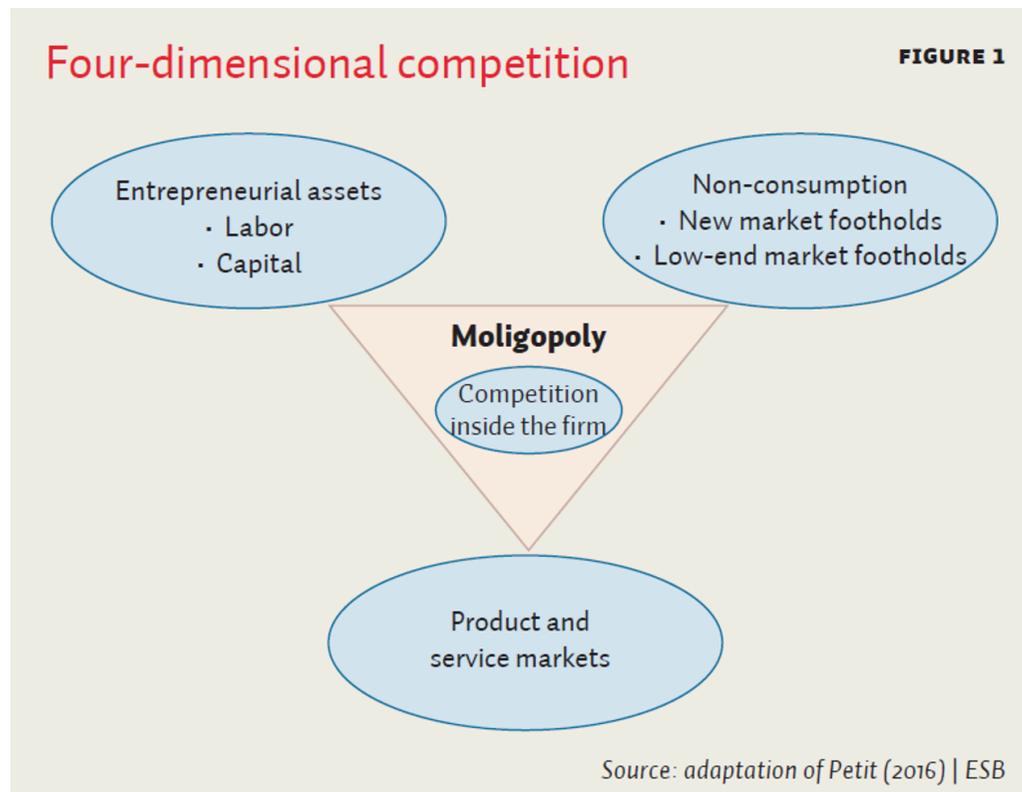


Unilat v bilateral competition

GOOGLE	n/a	Google	AMAZON	↔	Google	FACEBOOK	↔	Google	APPLE	↔	Google	MICROSOFT	↔	Google	NETFLIX	↔	Google		
	↔	Amazon		n/a	Amazon		←	Amazon		↔	Amazon		↔	Amazon		↔	Amazon		
	↔	Facebook		→	Facebook		n/a	Facebook		↔	Facebook		↔	Facebook		↔	Facebook	→	Facebook
	↔	Apple		↔	Apple		↔	Apple		n/a	Apple		↔	Apple		↔	Apple	↔	Apple
	↔	Microsoft		↔	Microsoft		↔	Microsoft		↔	Microsoft		n/a	Microsoft		n/a	Microsoft	none	Microsoft
	↔	Netflix		↔	Netflix		←	Netflix		↔	Netflix		none	Netflix		n/a	Netflix	n/a	Netflix

2. How to measure unseen competition?

► Beyond product markets?



Not (only) a structural question?

- ▶ **Do we really ask the right question?**
 - ▶ « *if I am not happy with Ford, I can buy a Chevy; If I am not happy with Facebook, where can I go?* »
- ▶ What matters may not be so much that there is a single supplier, but whether that single supplier operates under a « *change* » constraint (“*competition and adversity create some pressure for change*”, Leibenstein)
- ▶ **Put differently, observed durable monopolist today may not be same firm as 10 years ago**
- ▶ **If this is the case, perhaps there has been intense competition unseen in structural positions**
- ▶ **Need to capture the degree and rate of firm change over time**
 - ▶ Did firm change, in one or more dimension, when and how often?
 - ▶ Observation points: output, costs, products, R&D, capital allocation choices, strategy, organization, compensation?
 - ▶ Apple v Amazon v Microsoft?

Conclusion

▶ Digital Westeros?

- ▶ Like in a GoT, FAANGs compete with distinct capabilities across various territories
 - ▶ Apple?
 - ▶ Amazon?
 - ▶ Microsoft?
- ▶ Framework applicable to other firms?