



UNIVERSITY *of* NICOSIA

Department of Digital Innovation

MSc in Blockchain and Digital Currency

BLOC 526 - Emerging topics in fintech

Session 2 - Introduction to fintech and disruption - The Austrian School

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Learning objectives and expected learning outcomes

Summary

Session 2 continues on the introduction to fintech by offering analytical insights for the understanding of disruption. In addition, this section expands on the academic literature on innovation and disruption by studying the Austrian school of strategy and in particular the work of Joseph Schumpeter. Schumpeter studied competition as the process of ‘creative destruction’ rather than as a static equilibrium, and therefore implicitly provided the foundations of strategic research on innovation and disruption (as primarily expressed in the works of Clayton Christensen from 1995 onwards.)

Learning objectives

- Banking and insurance business models and scope for disruption
- Overview of Industrial Organisation and Austrian economics
- The concept of creative destruction and its impact on our understanding of competition and innovation
- Theoretical foundations of entrepreneurial profit and its sustainability

Expected learning outcomes

- Understand that banking and insurance are not industries, nor business models
- Understand the main differences between Industrial Organisation Economics and Austrian Economics, as theoretical foundations for the understanding of innovation and disruption

Takeaways from the previous session

1. Nothing is totally new

- Regardless of the lens that we use in order to interpret the causes (why), the existence and study of disruption has been around for decades

2. Disruptive thinking and execution do not always align

- Incumbents are inertial and their innovations are incremental rather than disruptive
- Incumbent innovation is not valuable enough to their existing market (given their size and profitability targets)

3. Disruptive processes are more than mere innovation

- Technology is the main driver for disruptive innovation

4. Fintech is not a new phenomenon

- Technology has been applied to financial services for a long time
- Fintech comes in several shapes and flavours

Agenda

- An analytical approach to financial services disruption
- Perspectives on fintech
- A deeper dive into disruption - the Austrian School of Economics
- Concluding remarks

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Question: What is a bank?





Question: What is more important, banks or banking?

**“We need banking,
but we don’t
need banks
anymore”**

















We need to be careful with the term banking...














Banking is a convenient umbrella term for an amalgamation of various business models

Business Model
Deposits
Loans
Payments
Advisory
Data Management
Customer Service

Competitors
 
  
  
 
 
 

The same principle applies to insurance

Business Model
Underwriting
Risk pooling
Asset management
Advisory
Data Management
Customer Service

Competitors
 
 
 

 
 

Takeaways

1. Just like banking or insurance, fintech is not a business model

- Think hard which business model you want to play in, where your strengths lie and who your real competitors are

You cannot disrupt a business model that does not exist!

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Question

How many of you
have studied
statistics?

Standard Normal Probabilities



Table entry for z is the area under the standard normal curve to the left of z .

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
-3.4	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
-3.3	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0003
-3.2	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0005	.0005	.0005
-3.1	.0010	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0007	.0007
-3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
-2.9	.0019	.0018	.0018	.0017	.0016	.0016	.0015	.0015	.0014	.0014
-2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
-2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
-2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
-2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
-2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
-2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
-2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
-2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143



Question

What is the only way
to predict the
future?



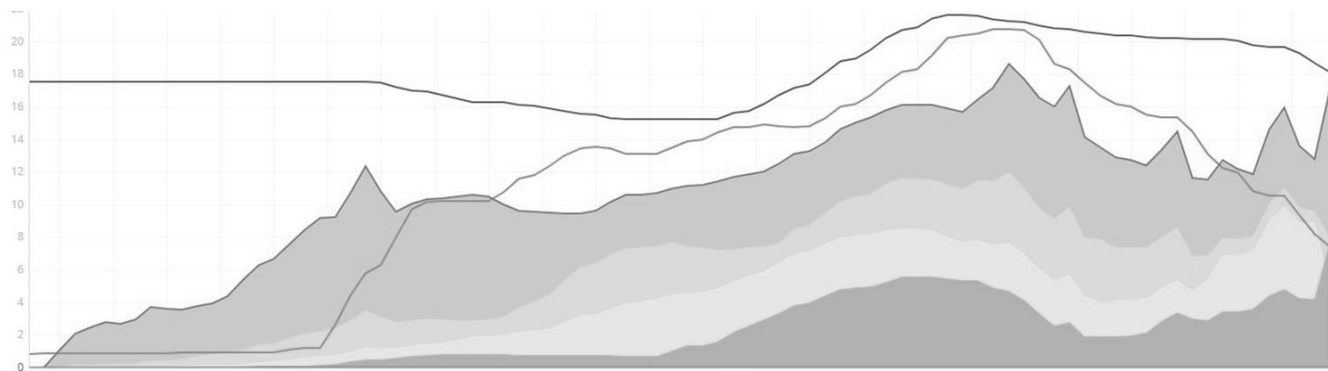
We cannot predict the future!

The best we can do is to make predictions *about* the future



Question

What is the best way
to *make predictions*
about the future?



Historical data is a pretty poor predictor for extreme events

The Observer
Mathematics

the guardian

Everyday risks: when statistics can't predict the future

Michael
Blastland and
David
Spiegelhalter

Sun 9 Jun 2013 00.04

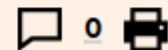
Statistics, it seems, can reveal our chances of being affected by anything from crime to serious illness. But number-crunching itself is a hazardous business

FINANCIAL TIMES

The 'monster' of VaR has not gone away

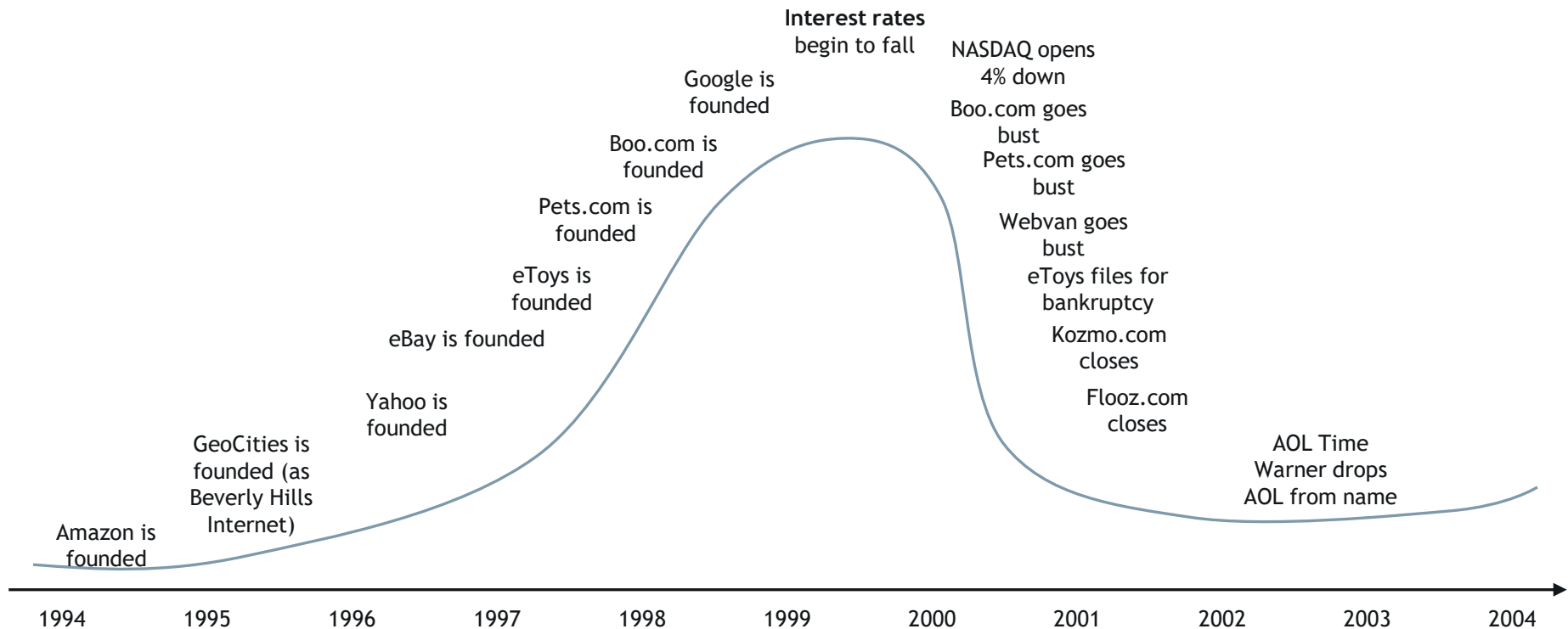
Good to see shift away from this flawed model

Vince Heaney OCTOBER 28 2012

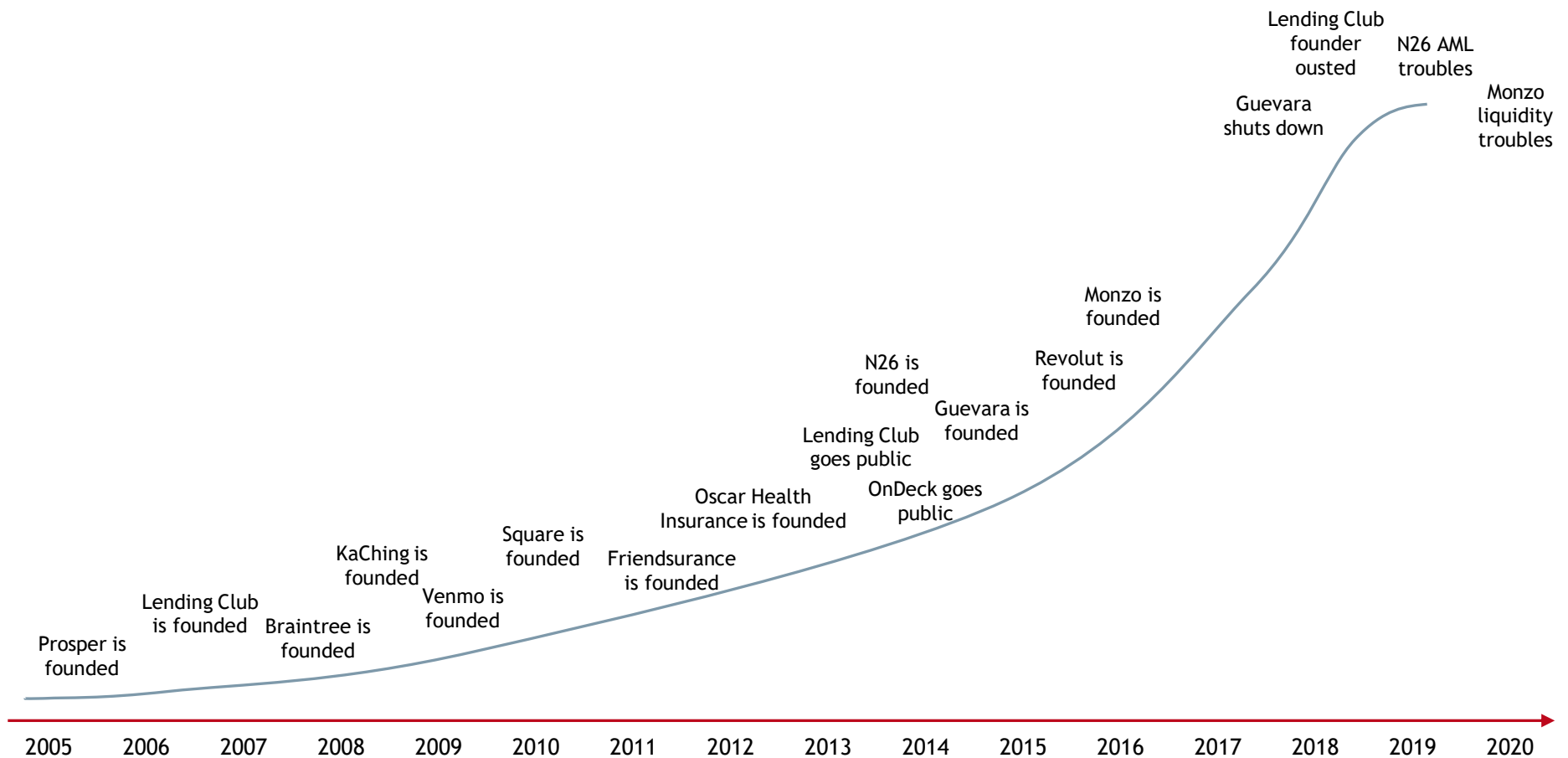


But when it comes to predicting the ‘body’ of the distribution, it is probably the best tool that we have...

A timeline of the dot-com crisis

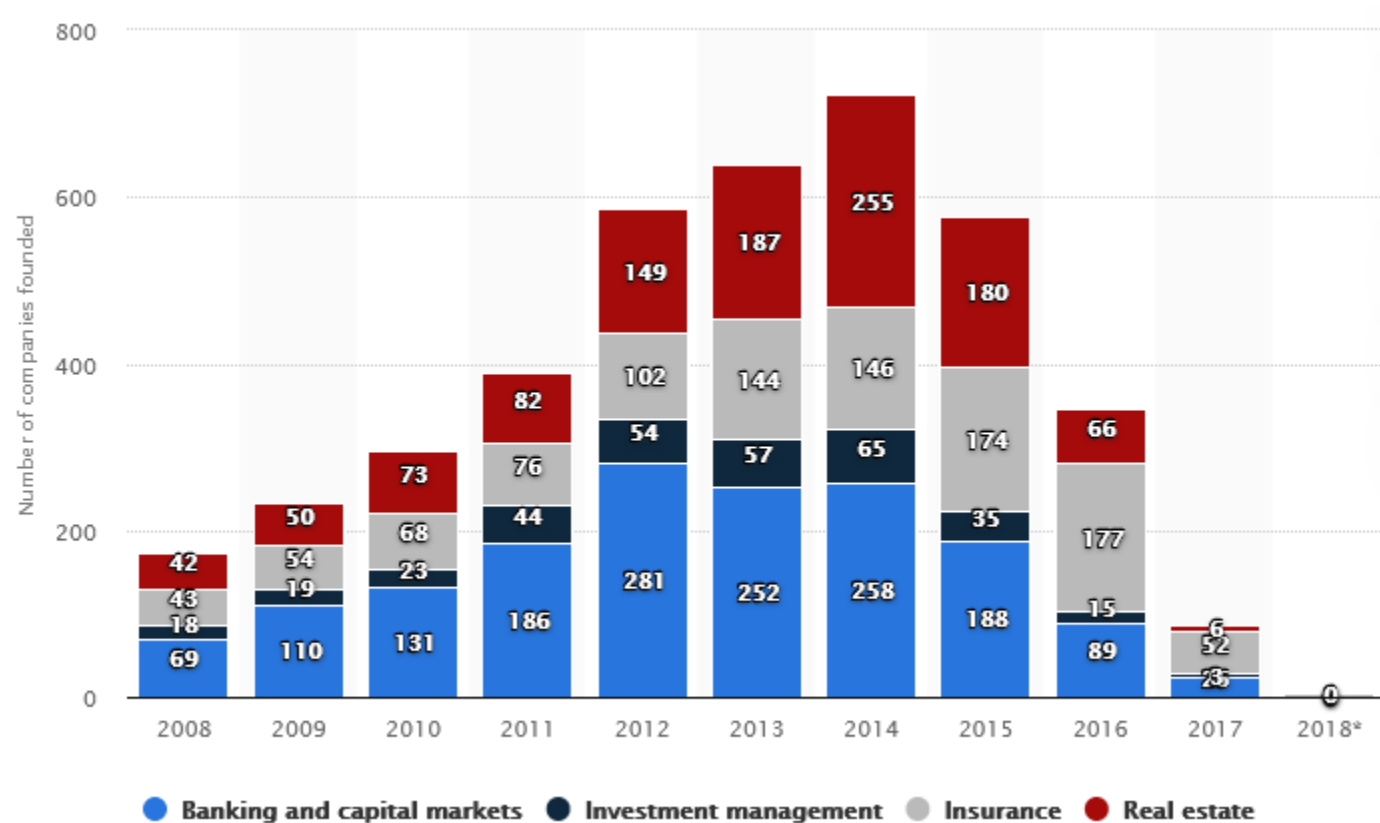


Would you like to extrapolate this line?



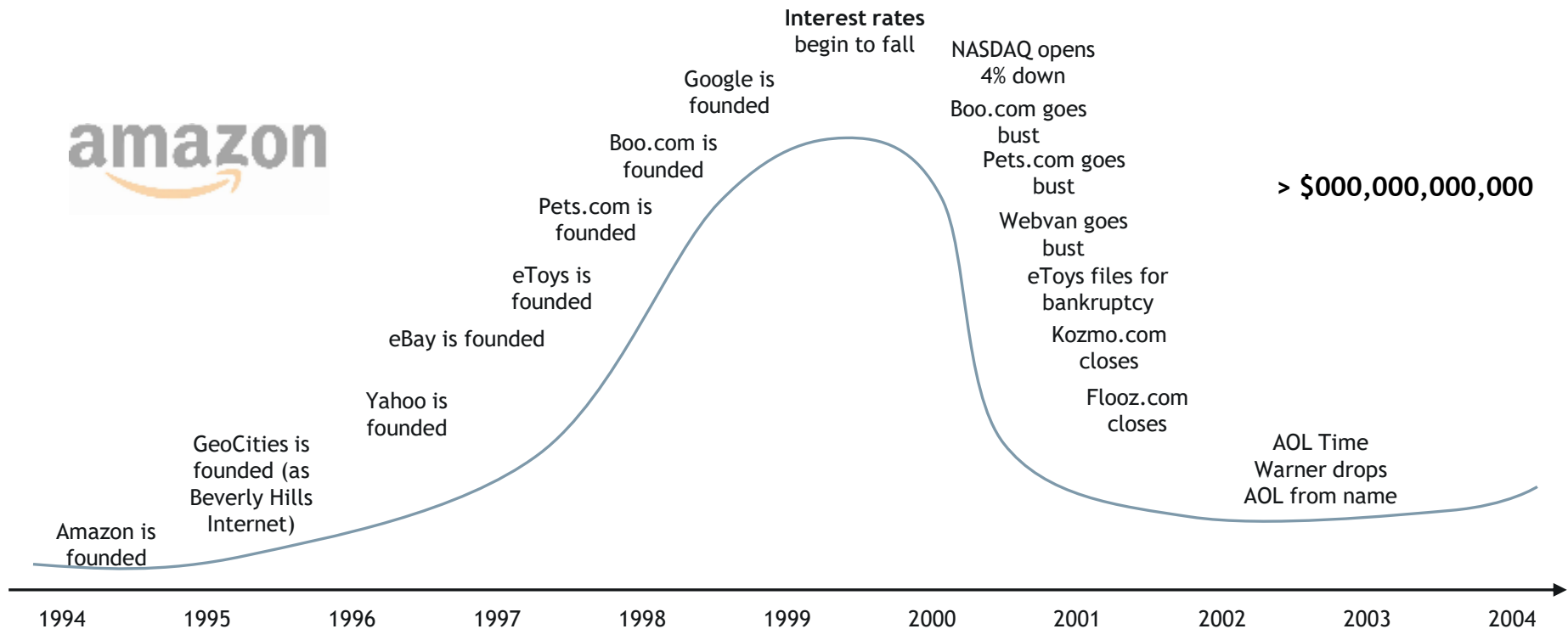
Another way to look at the same concept

Number of fintech companies founded worldwide



<https://www.statista.com/statistics/915552/number-fintech-companies-founded-by-industry/>

But wait a second, history has more to tell us...



Only a handful of survivors can totally change the financial services landscape

Takeaways

2. History can teach us a lot, but not everything

- Studying history cannot predict the future
- But the study of history (and historical data) can assist us with making predictions about the future

“The ‘end of history’ does not mean that the natural cycle of birth, life and death would end, that important events would no longer happen, or that newspapers reporting them would cease to be published.

It means, rather, that there would be no further progress in the development of underlying principles and institutions, because all of the really big questions have been settled.”

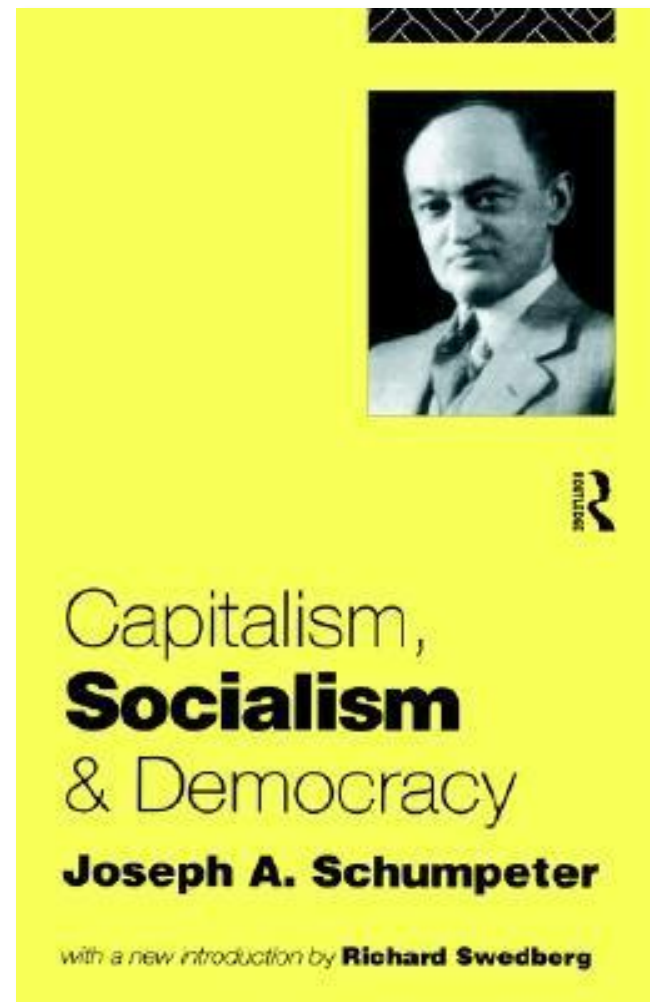
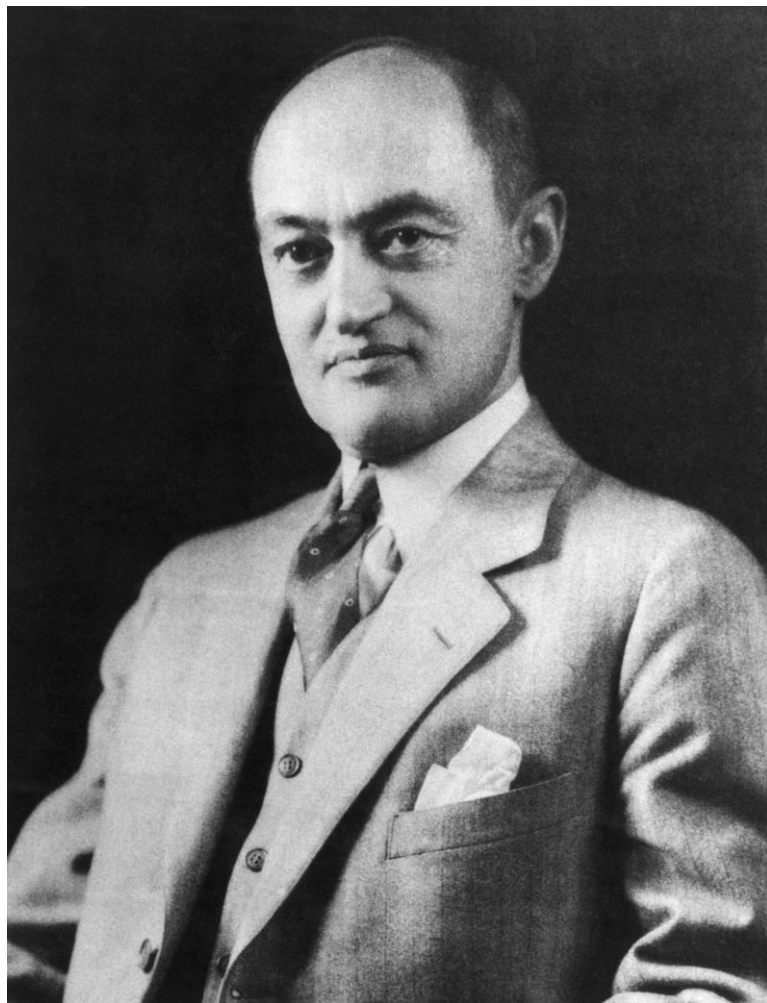
Francis Fukuyama

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Question: Do you remember this gentleman from the previous session?

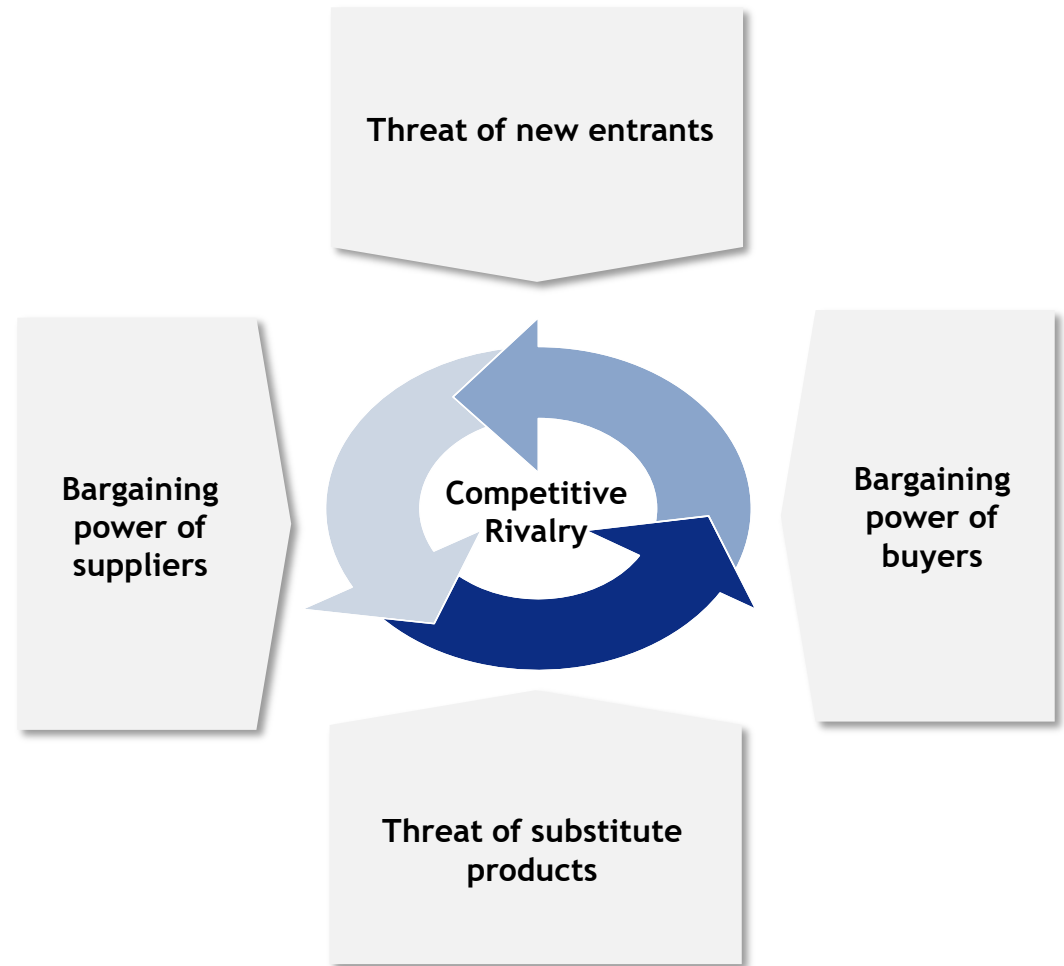
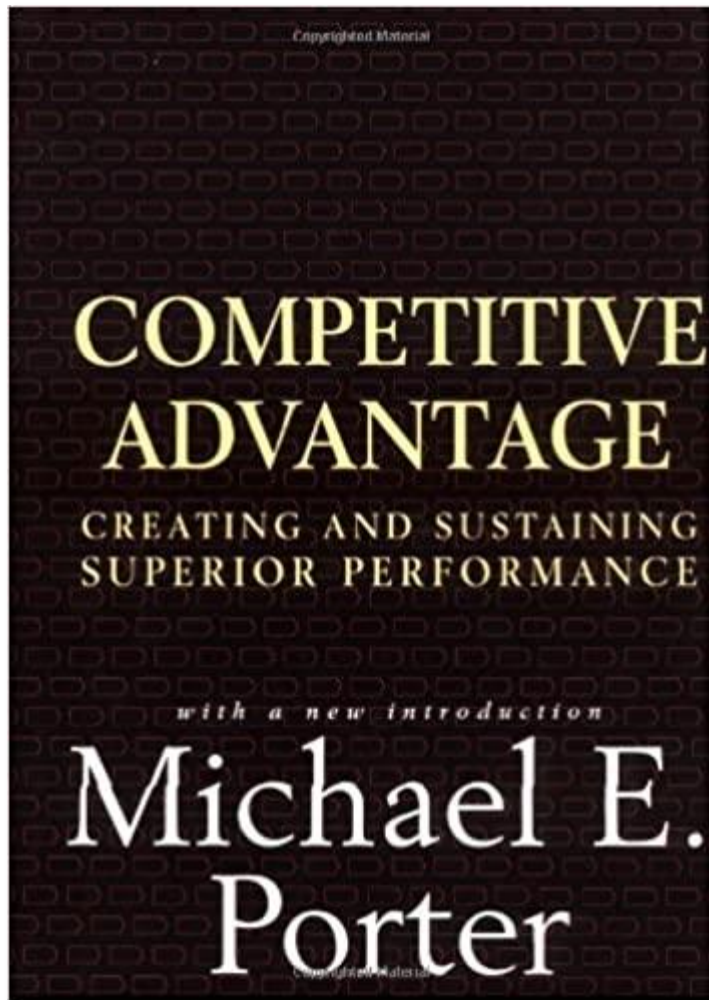




Question: Does anyone recognise this other gentleman?



Let's start with Michael Porter



Criticisms to Industrial Organisation economics

Focuses on what managers can do to limit competition, instead of promoting it

Outlook is backward looking and therefore short term in nature

Definitions of industries assume clear cut divisions between them

Lacks attention to innovation and technology

‘Austrian Economics’ - An alternative school of thought

Profits are the outcome of innovation (entrepreneurial discovery), and not necessarily the outcome of monopoly power as per the IO school. Therefore supranormal profits are temporal, as new innovation will come and disrupt the status quo through the market process of discovery

Entrepreneurial discovery is achieved through R&D, local knowledge and imitation. Interestingly enough, Kirzner (1979) argued that imitators exercise entrepreneurship as much as the innovators themselves, something we often tend to ignore...

Fundamentally, entrepreneurial profit depends on the possession of superior information. Continuous changes in the state of knowledge produce new disequilibrium situations and therefore new profit opportunities

Given the above, profit is a disequilibrium phenomenon that cannot exist indefinitely!

Takeaways

3. Do not ignore history, nor theory

- Innovation has long been studied as a parameter in economics
- Austrian Economics offer valuable insights for anyone interested in the theory of disruption

All theories are wrong...

But some of them can be useful

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Any questions?

Q & A



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Questions?

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