UNIVERSITY of NICOSIA

Department of Digital Innovation

MSc in Blockchain and Digital Currency

BLOC 526 – Emerging topics in fintech

Session 1 - Introduction to fintech and disruption

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Learning objectives and expected learning outcomes

Summary

Session 1 introduces fintech and the – much talked about – concept of disruptive innovation. Fintech needs to be understood as a process that has started in the financial services industry several decades ago and is often more of an enabler than a disruptive force. Disruptive innovation needs to be distinguished from innovation (or novelty) and disruptive forces need to be understood as technological or business model oriented.

Learning objectives

- The concept of "disruptive innovation" in the management literature
  - Antecedents
  - Drivers
  - Variants
- Definition of Fintech, evolution and applications in financial services

Expected learning outcomes

- Demonstrate an understanding of fintech, its meaning and its impact on financial services products, offerings and business models
- Understand why disruptive innovation is more likely to be brought about by new firms, even though most innovations stem from existing firms
- Be able to differentiate between technological innovation and business model innovation

Agenda

- Understanding disruption
- Introduction to fintech
- Concluding remarks

Agenda

- Understanding disruption
  - Why is there disruption?
  - Who drives disruption?
  - What is disruption?
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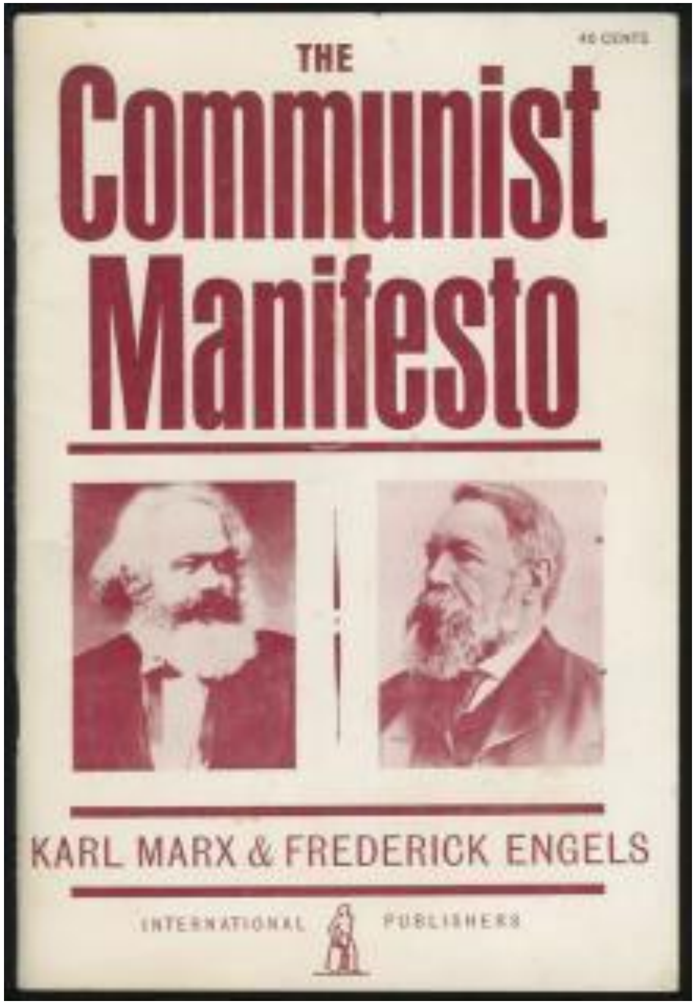
Why is there disruption?
The critical perspective - Marx & Engels

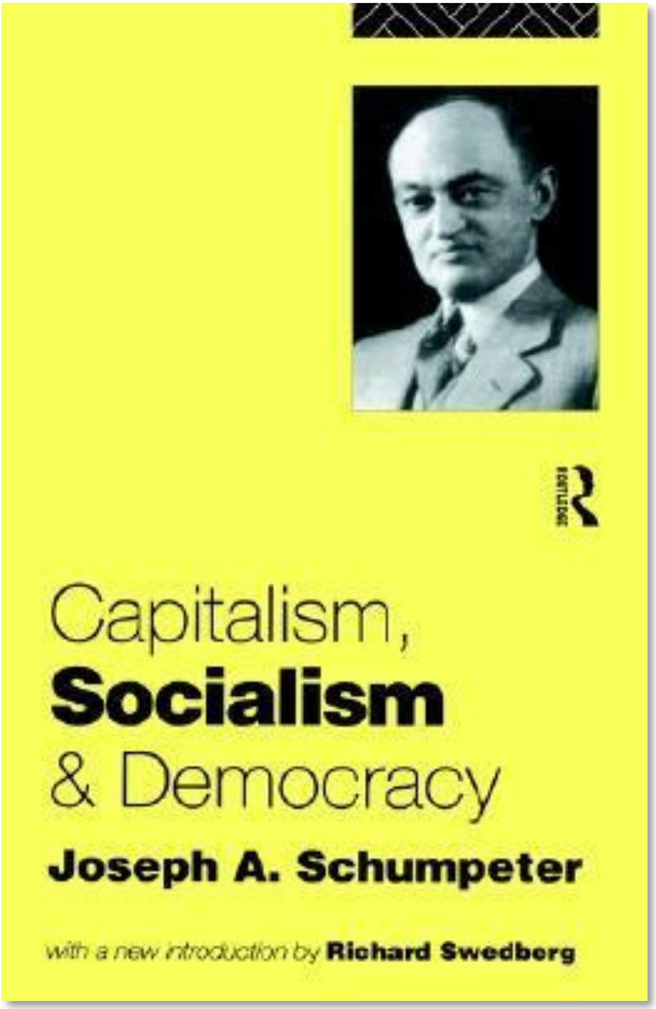


- Economic disruption is endemic to the capitalist system and therefore unavoidable; capitalism tries to protect the interests of the bourgeois

«Society suddenly finds itself put back into a state of momentary barbarism; […] and why? Because there is too much civilisation, too much means of subsistence, too much industry, too much commerce. […]

And how does the bourgeoisie get over these crises? On the one hand by *enforced destruction of a mass of productive forces*; on the other, by the conquest of new markets, and by the more thorough exploitation of the old ones.»

Why is there disruption?
The beginnings of the neo-classical / liberal thought - Joseph Schumpeter



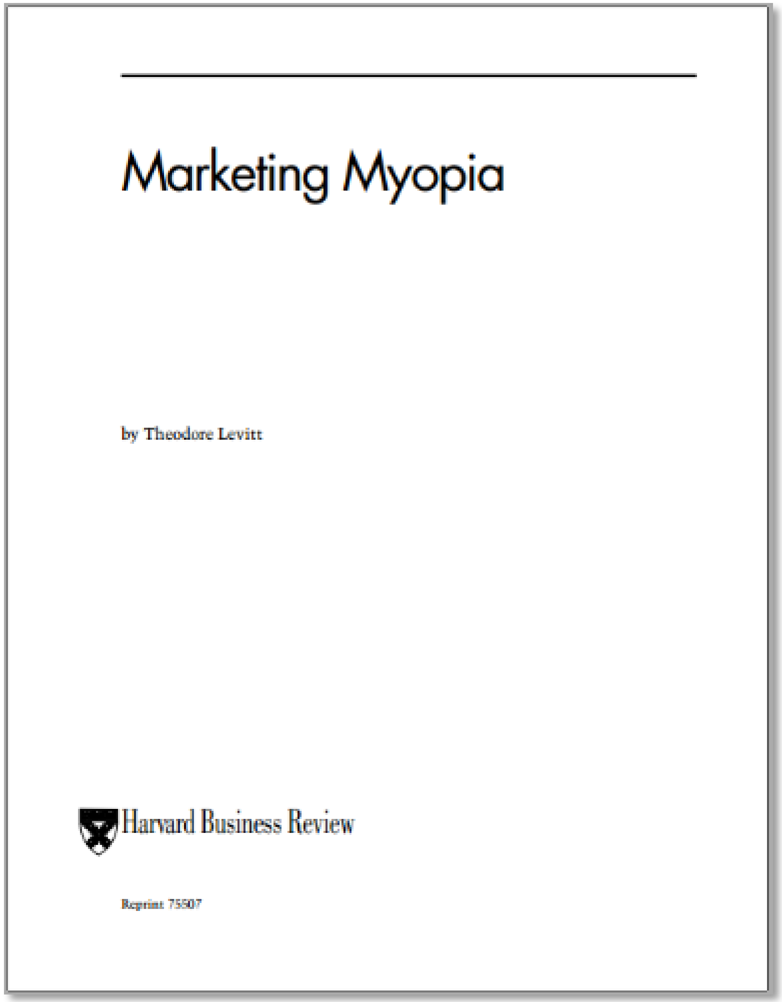
- Joseph Schumpeter dedicated the first part of his book to Karl Marx; but he crafted a new message for *some* of his successors

"The opening up of ***new*** markets, foreign or domestic […] illustrate the **process** of industrial mutation that incessantly **revolutionizes** the economic structure from within, incessantly ***destroying*** the old one, incessantly creating a new one.

This process of **Creative Destruction** is the essential fact about capitalism. It is what capitalism consists in and what ***every*** capitalist concern has got to live in."

Question: What do railways have in common with banking?

Ted Levitt's seminal article: Marketing Myopia



Marketing Myopia

by Theodore Levitt

Harvard Business Review

Reprint 75507

"The ***railroads*** did not stop growing because the need for passenger and freight transportation declined. That grew

They let **others** [cars, airplanes, trucks, even telephones] *take customers away* from them because they assumed themselves to be in the **railroad business rather than** in the ***transportation business***"

Can you think of any parallels?

Takeaways

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

Innovations are, by definition, new

Innovating (and disrupting) is not!

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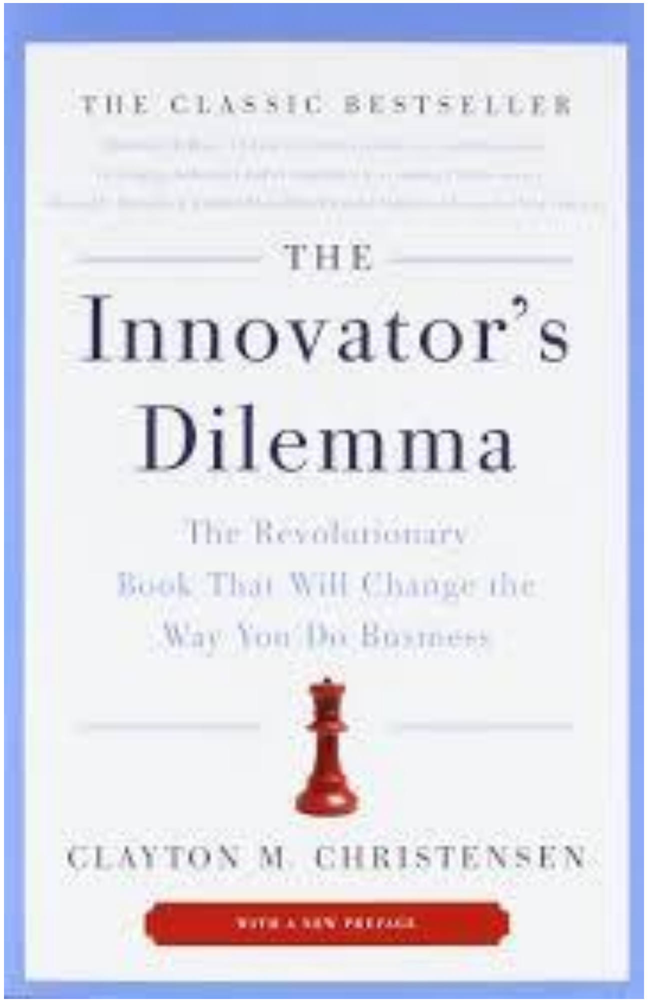
Where is disruption usually coming from?



“market-leading companies have *missed* game-changing transformations in industry after industry— computers (mainframes to PCs), telephony (landline to mobile), photography (film to digital), stock markets (floor to online)

not because of "*bad*" management, but because they *followed the dictates* of "**good**" management.

They **listened closely** to their customers. They carefully studied *market trends*. They ***allocated capital*** to the innovations that promised the largest returns.

And in the process, they ***missed*** disruptive innovations that opened up new customers and markets for lower-margin, blockbuster products”

Can you think of any parallels?

We know of several innovations coming from incumbent firms…

None of these innovations was originally implemented, because the business case did not stuck up

Who drives disruption?
Disruption from superior products

M. L. Tushman and P. Anderson (1986), "Technological discontinuities and organizational environments", Administrative Science Quarterly, 31, 439-65

Competence enhancing innovations → Consolidate industry leadership and hinder development of new firms

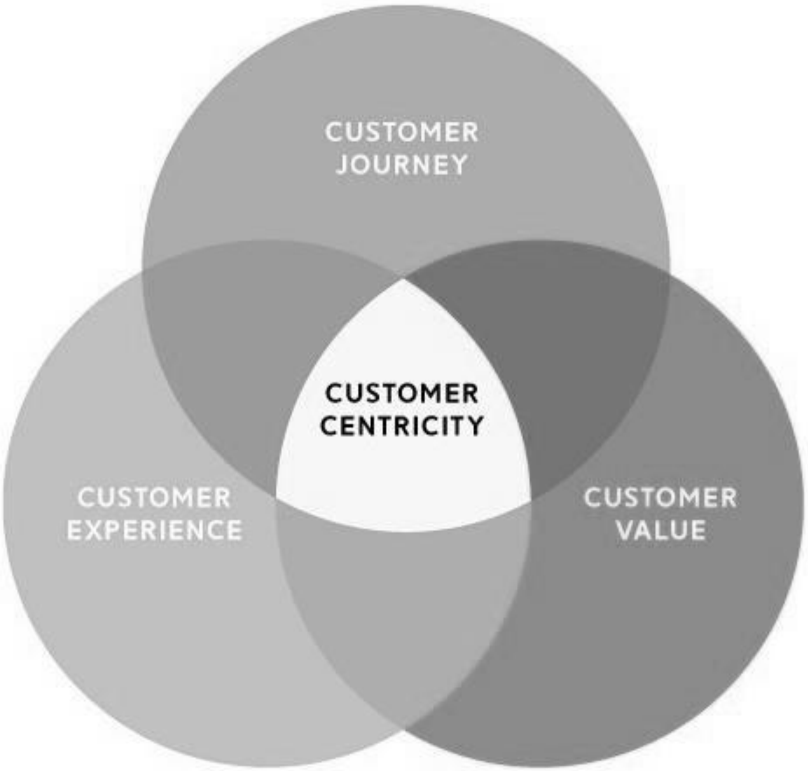
Competence destroying innovations → Spur the creation of new firms; incumbent organisations are inertial and cannot adapt

Who drives disruption?
Disruption from 'inferior' products

C. M. Christensen and J. L. Bower (1996), "Customer power, strategic investment, and the failure of leading firms", Strategic Management Journal, 17, 197-218

- The authors provide a 6 step model of resource allocation for established firms faced with disruptive change:
    1. Disruptive technology is developed by leaders
    2. The new product is shown to existing customers who don't find it valuable
    3. Resources are allocated to less risky projects
    4. Employees from existing leaders set up firms to produce innovative products. The products are not valuable to existing customers so new firms focus on new customers who – in retrospect – were obvious from the beginning
    5. Startups outperform incumbents and customers embrace new architectures they rejected earlier
    6. Established firms market the prototypes originally rejected in step c. but they never gain dominant market share. Survival is the main reward!

Question: Should firms be listening to their customers?



Yes

No

Some times

Client centricity will not necessarily take you far…

BARNES & NOBLE

“If I asked *people* what they wanted, they would have said *faster horses*”

Takeaways

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)

Coming up with disruptive propositions is hard

Implementing them successfully is even harder!

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Beware of the differences: disruption, innovation and novelty

Novelty	Something new or unusual	
Innovation	A new idea, method or device that does better, faster or cheaper things we used to do before	
Disruption	An innovation that creates a new market and value network, eventually disrupting an existing market and value network, displacing established market-leading firms, products, and alliances	

At least on this tweet, he was right!

Technological innovation versus *business model* innovation (disruption)

Prof. Constantinos Markides

Technological innovation

- Doing what we did before better, faster or cheaper
- E.g. internet banking

Technology-enabled business model innovation

- Developing brand new business models using new technologies
- E.g. crypto currencies

Takeaways

3. Disruptive forces are more than mere innovation	▪ Technology is the main driver for disruptive innovation

Technology is a great tool, but little more than that…

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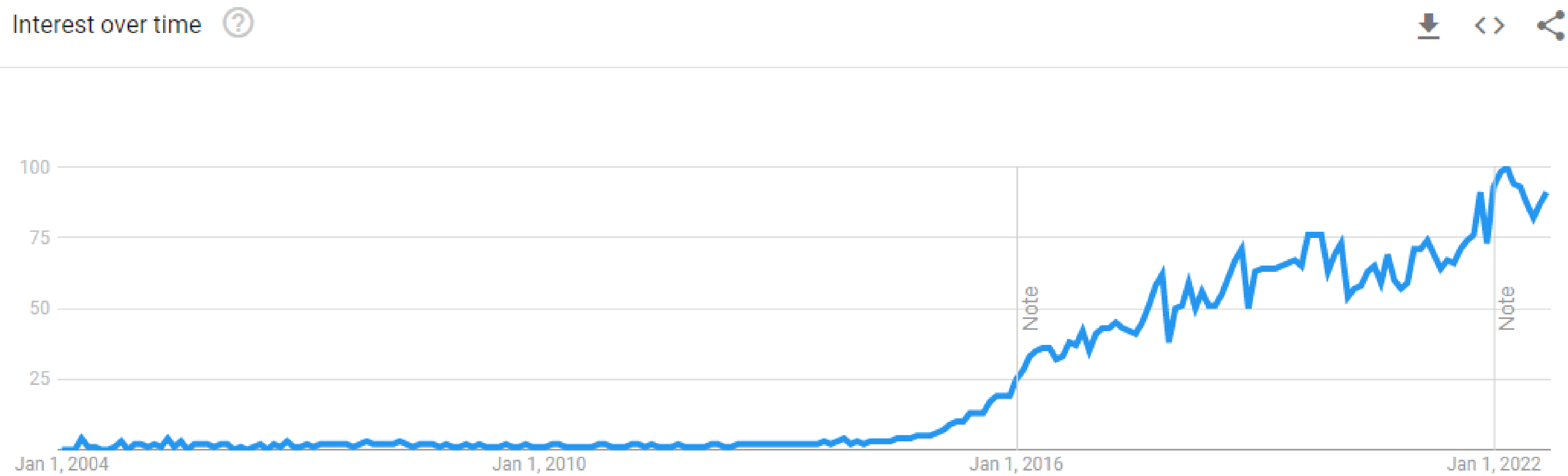
Fintech is nothing new…

- The interlinkage of finance and technology has a rather long history
- The term ‘fintech’ can be traced back to the early 1990s
  - Citicorp initiated the “Financial Services Technology Consortium” to facilitate technological cooperation
- However, the use of the term has risen rapidly since 2015



Source: trends.google.com (12 September 2022)

Arner et al (2016) have identified 3.5 eras in the evolution of fintech

Date	1866-1967	1967-2008	2008-today	
Era	Fintech 1.0	Fintech 2.0	Fintech 3.0	Fintech 3.5
Geographies	Advanced economies	Advanced economies	Advanced economies	Emerging economies
Key elements	Infrastructure	Computerisation / internet	Mobile / startups / new entrants	
Origins of shift	Linkages	Digitalisation / globalisation	2008 financial crisis / smartphones	Last mover
Examples	▪ 1866: First transatlantic cable ▪ 1918: Fedwire ▪ 1950: Diner's ▪ 1958: AMEX	▪ 1967: ATM ▪ 1968: BACS ▪ 1970: CHIPS ▪ 1973: SWIFT ▪ 1981: Bloomberg ▪ 1983: Online banking ▪ 2008: Global financial crisis	▪ 2007: Lending Club ▪ 2008: Wealthfront ▪ 2009: Bitcoin ▪ 2009: Venmo ▪ 2009: Kickstarter ▪ 2010: Square ▪ 2011: Transfer Wise	▪ 2007: m-Pesa ▪ 2010: Alibaba SME loans ▪ 2011: LuFax ▪ 2013: WeChat Pay

Financial technology utilities come in different flavours

BankTech	InsurTech	WealthTech	RegTech	SupTech
▪ Improves banking institution offerings and operations ▪ Allows the offering of new products or existing products to new markets	▪ Offers improvements to insurance firm operations and increasing efficiency ▪ Allows the offering of new products or existing products to new markets	▪ Offers new ways of investing money and managing investments ▪ Empowers users to manage own investments ▪ Removes the need for costly financial analysts and other human interaction	▪ Enables firms to deal with regulatory requirements, such as reporting and monitoring ▪ Automates and improves regulatory compliance processes	▪ Technology that supports supervisory agencies with implementing and monitoring rules and regulations ▪ Assists supervisors with more rapid reactions to developing market conditions

Takeaways

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

Studying history alongside theory is often the best way for understanding the future

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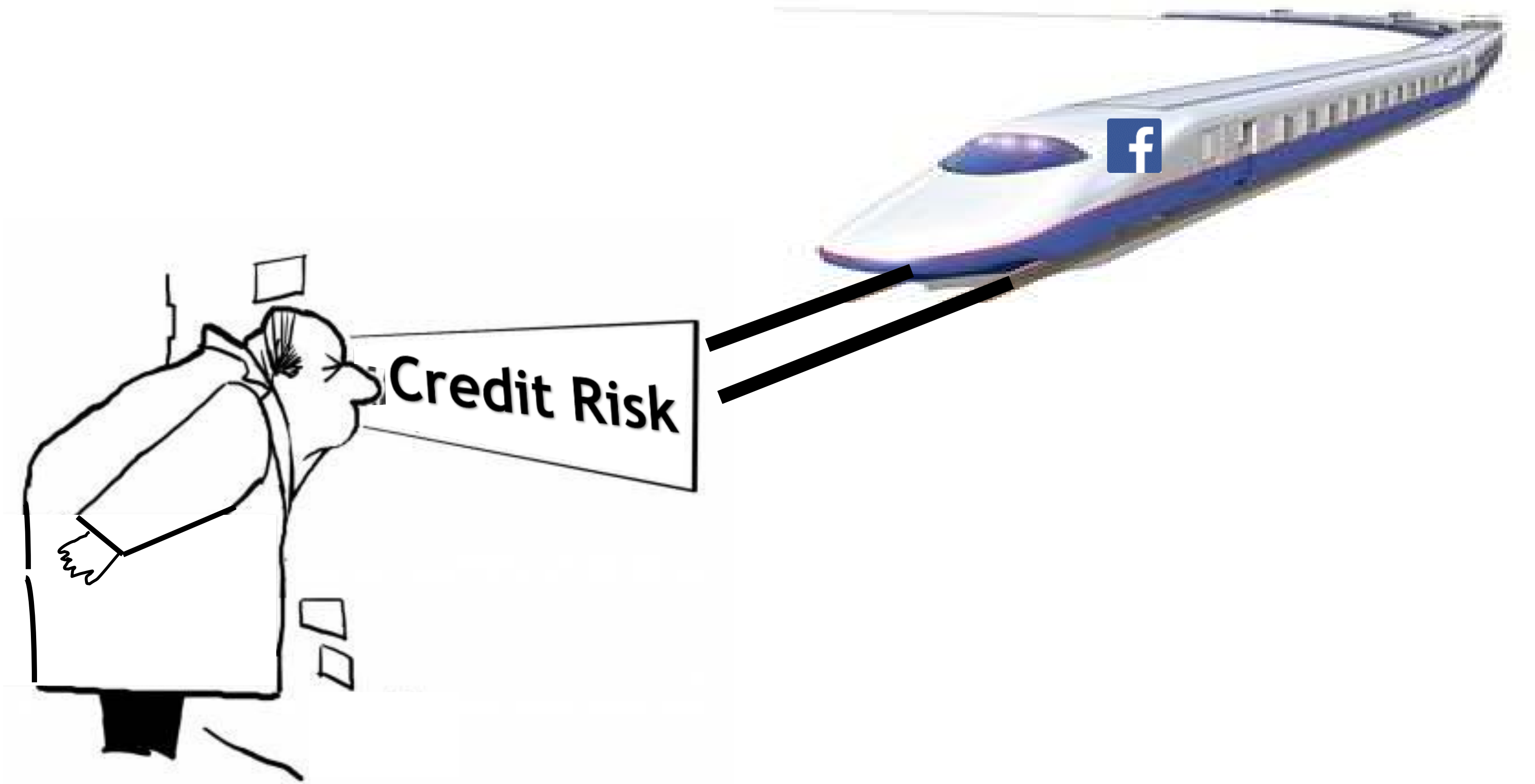
Summary of takeaways

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

From marketing myopia to banking myopia…



Original cartoon: Cartoonstock.com

Any questions?

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Questions?

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