

# Do Innovations in Lending Help SMEs?

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# Questions we will address

**1**

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What is a crowdfunder?

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Does crowdfunding alleviate SMEs' cashflows?

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What drives crowdfunding around the world?

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What does the future landscape look like?

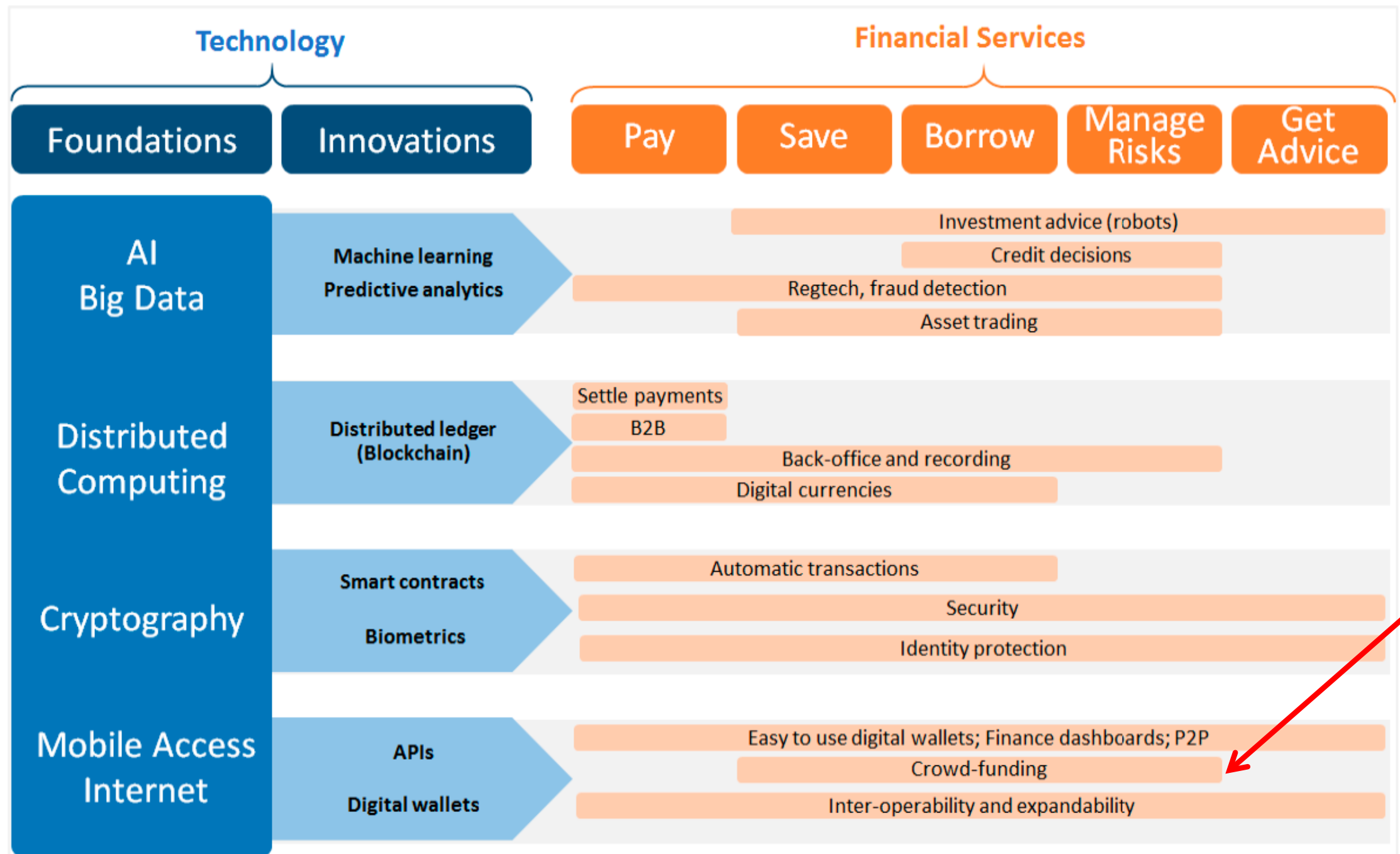
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What is the impact of Covid-19 on crowdfunders?

# Crowdfunding is a small part of the whole fintech ecosystem



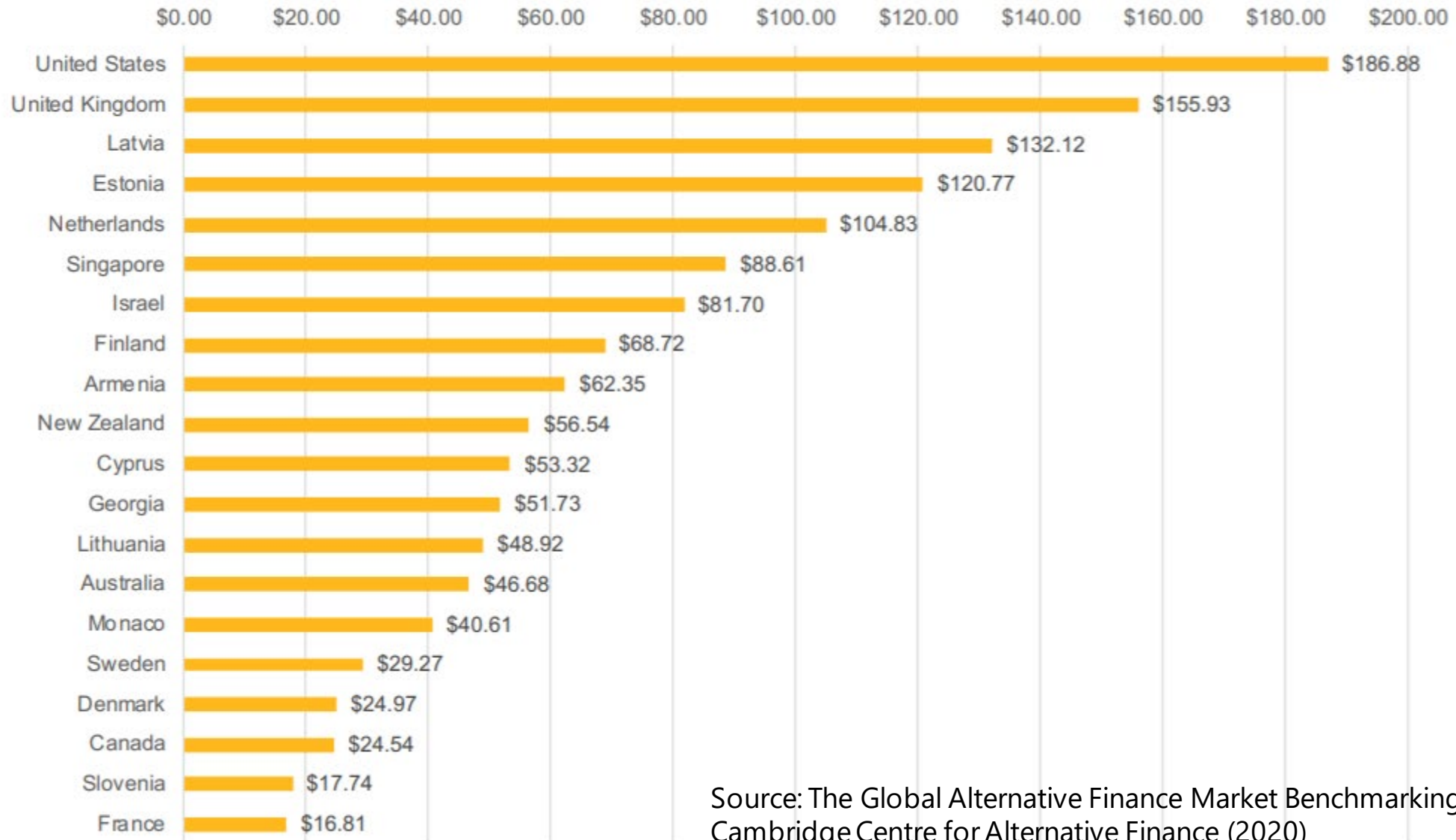


Source: IMF staff.

## What is crowdfunding?

- Known by other names: Peer-to-Peer lending, marketplace lending, alternative finance
- Not a bank
- Provides a matching service by connecting investors and borrowers
- Uses AI to do predictive analysis of credit worthiness

## Alternative Financer Volumes per Capita - Top 20 Countries - 2018



Source: The Global Alternative Finance Market Benchmarking Report, Cambridge Centre for Alternative Finance (2020)



# Singapore's Crowdfunding Industry

- Started in 2015
- Small but growing rapidly
- 19-20 platforms (2018), mainly in business lending

Source: The Global Alternative Finance Market Benchmarking Report (2020), Cambridge Centre for Alternative Finance

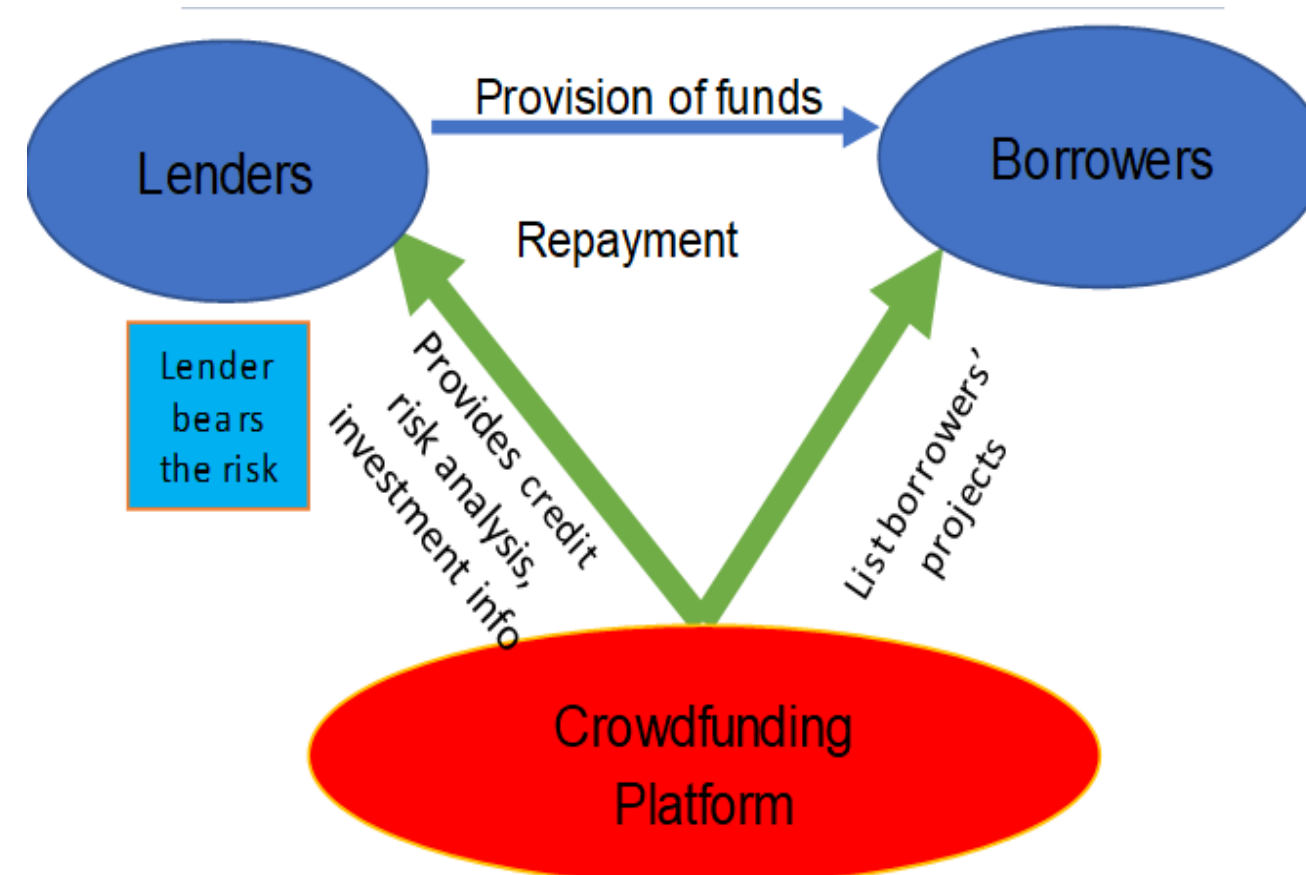
## Top 30 Crowdfunding Volume in 2018 (Amount of funds raised)

China	\$215,396,387,848.40
United States	\$61,134,356,480.00
United Kingdom	\$10,367,889,408.00
Netherlands	\$1,806,298,624.00
Indonesia	\$1,451,228,928.00
Germany	\$1,276,201,472.00
Australia	\$1,166,546,048.00
Japan	\$1,074,756,864.00
France	\$933,132,928.00
Canada	\$909,255,296.00
South Korea	\$753,380,992.00
Israel	\$725,827,200.00
Brazil	\$673,192,768.00
India	\$547,428,160.00
Italy	\$532,583,424.00
Singapore	\$499,653,248.00
Spain	\$419,040,224.00
Finland	\$379,191,520.00
Poland	\$333,293,184.00
Sweden	\$298,038,528.00
Chile	\$289,255,456.00
New Zealand	\$276,205,248.00
Latvia	\$254,535,808.00
Mexico	\$233,390,656.00
Georgia	\$193,016,992.00
Colombia	\$192,467,200.00
Armenia	\$184,032,032.00
Estonia	\$159,526,080.00
Peru	\$158,461,440.00
Denmark	\$144,745,360.00
Lithuania	\$136,458,928.00

16<sup>th</sup> in the world



# Lending-based Crowdfunder



- The crowdfunder matches the lender and borrower
- It does not bear the risks of the borrower as it is not involved in the loan contract
- Funds and the loan repayments are segregated from the platforms' own account
- The crowdfunder earns its revenue from fees levied on the transacting parties (loan origination and ongoing loan repayments)



# Characteristics of SMEs

**1**

## Sales

Micro: <\$1m  
Small: \$1m to \$10m  
Medium < \$10m to \$100m

## Employees

<200 workers

**2**

Makes up 99% of  
Singapore  
companies

**3**

Employs 71% of  
Singapore's  
workforce

**4**

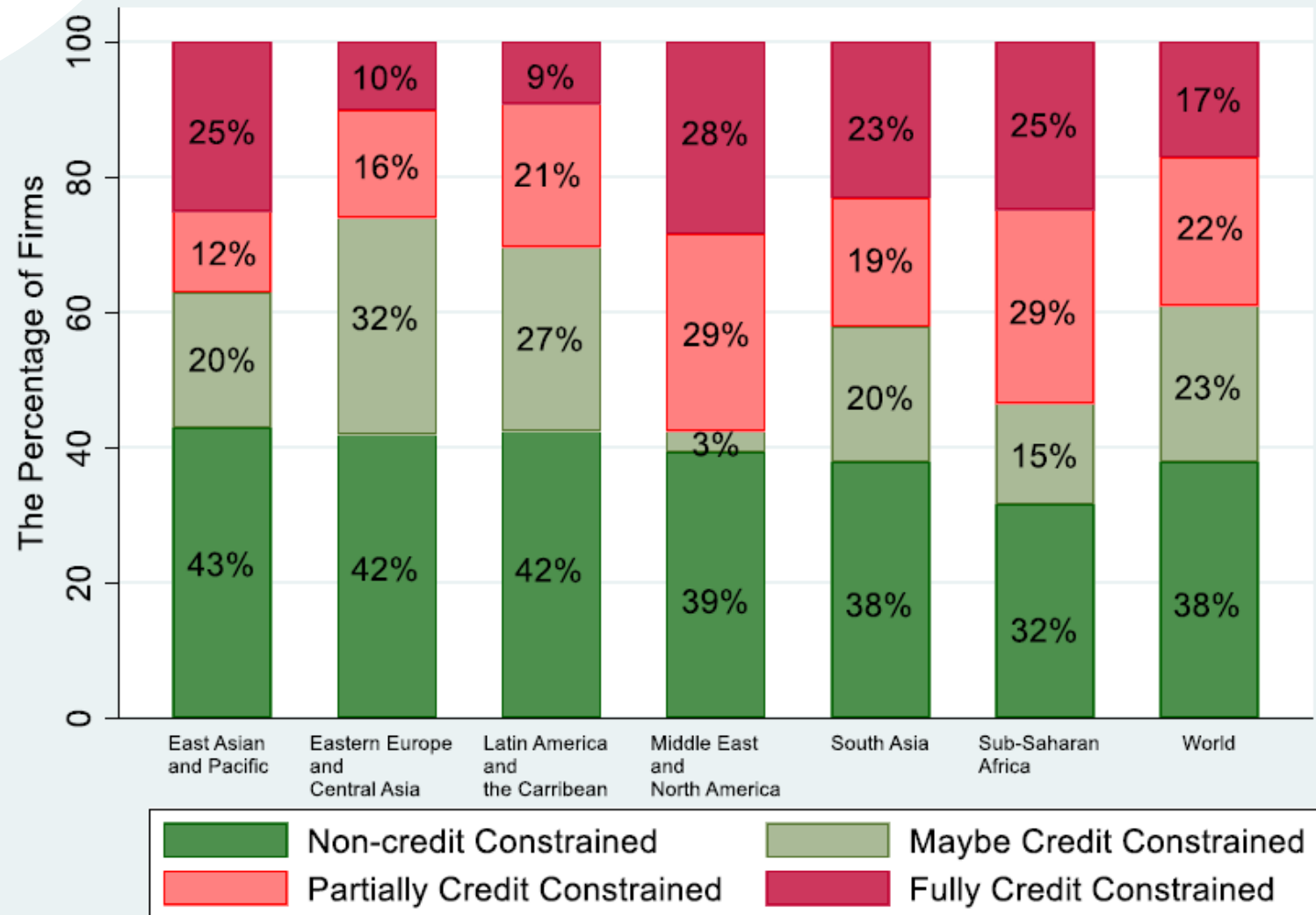
Contributes 47%  
of Singapore's  
GDP

**5**

Share of bank  
loans: 13%  
vs  
large corporates:  
47%

# SMEs face credit constraints

## The Funding Gap



Source: Enterprise Surveys Database



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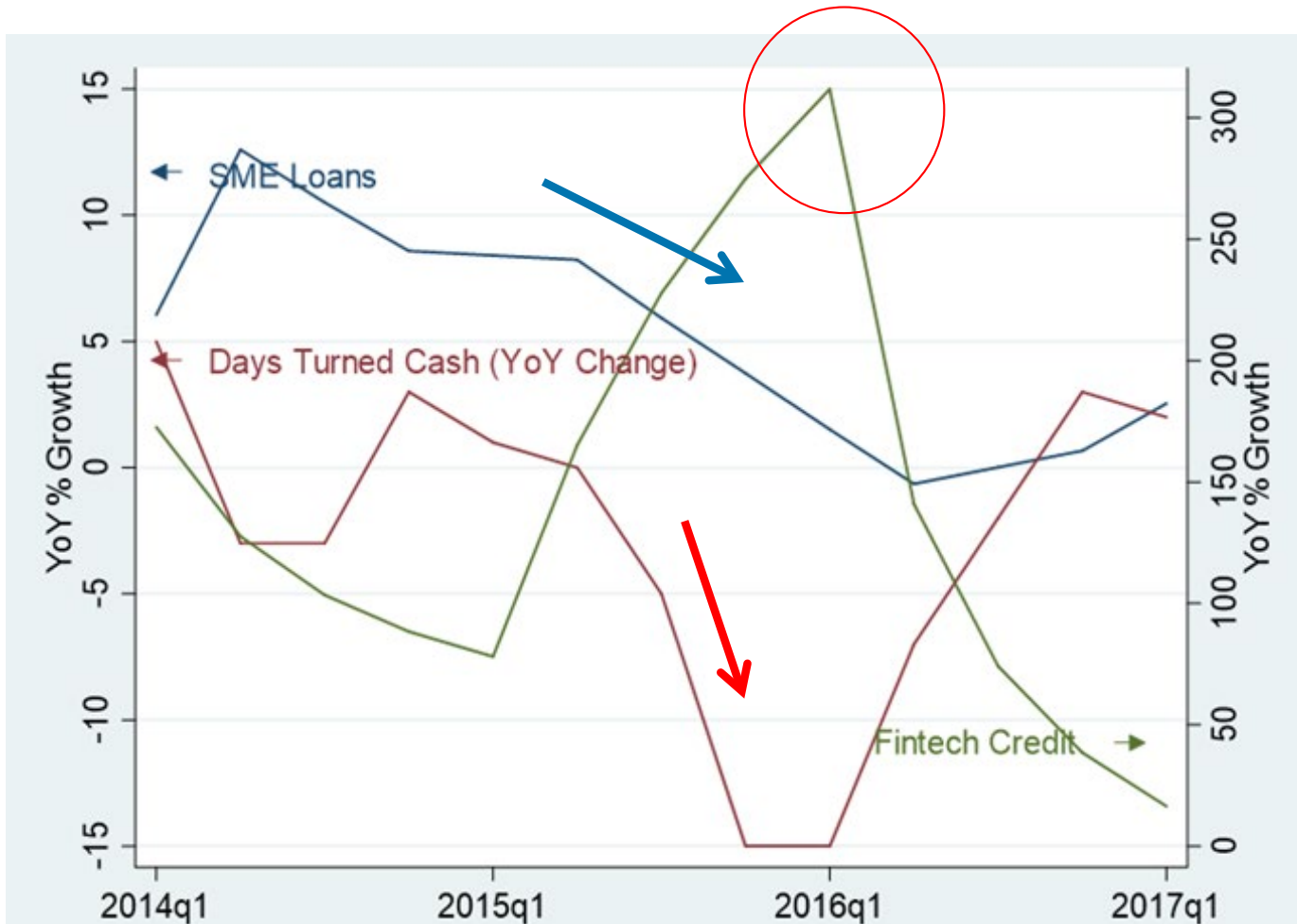
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What is the impact of Covid-19 on crowdfunders?

# 1. Can crowdfunders address SME funding gap and improve SMEs' cashflows?



- Rise in crowdfunding coincided with the fall in Days Turned Cash (debt is paid faster)
- Bank lending to SMEs has fallen
- But crowdfunding to SMEs surged by 300%

# Our Model

$$\Delta DTC_t = \alpha + \beta_1 \text{Access to Financing Expectations}_t (\text{yoy}) + \beta_2 \text{crowdfunding}_t (\text{yoy}) + \beta_3 \text{GDP} (\text{yoy}) + \varepsilon_t$$

## VARIABLES

Access to Financing Expectations Y-o-Y Growth

Crowdfunding Growth Y-o-Y Growth

GDP Y-o-Y Growth

Constant

R-squared

Robust

RMSE

Dependent Variable

## ESTIMATES

-0.320\*

(0.154)

-0.0660\*\*\*

(0.00525)

1.179\*

(0.603)

-0.551

(2.194)

0.863

Yes

2.855

$\Delta DTC_t$

- Both improved access to financing expectations and crowdfunding growth have reduced time to pay debt
- When there is higher GDP growth, SMEs stretch out payment, and use excess cash to invest or expand instead



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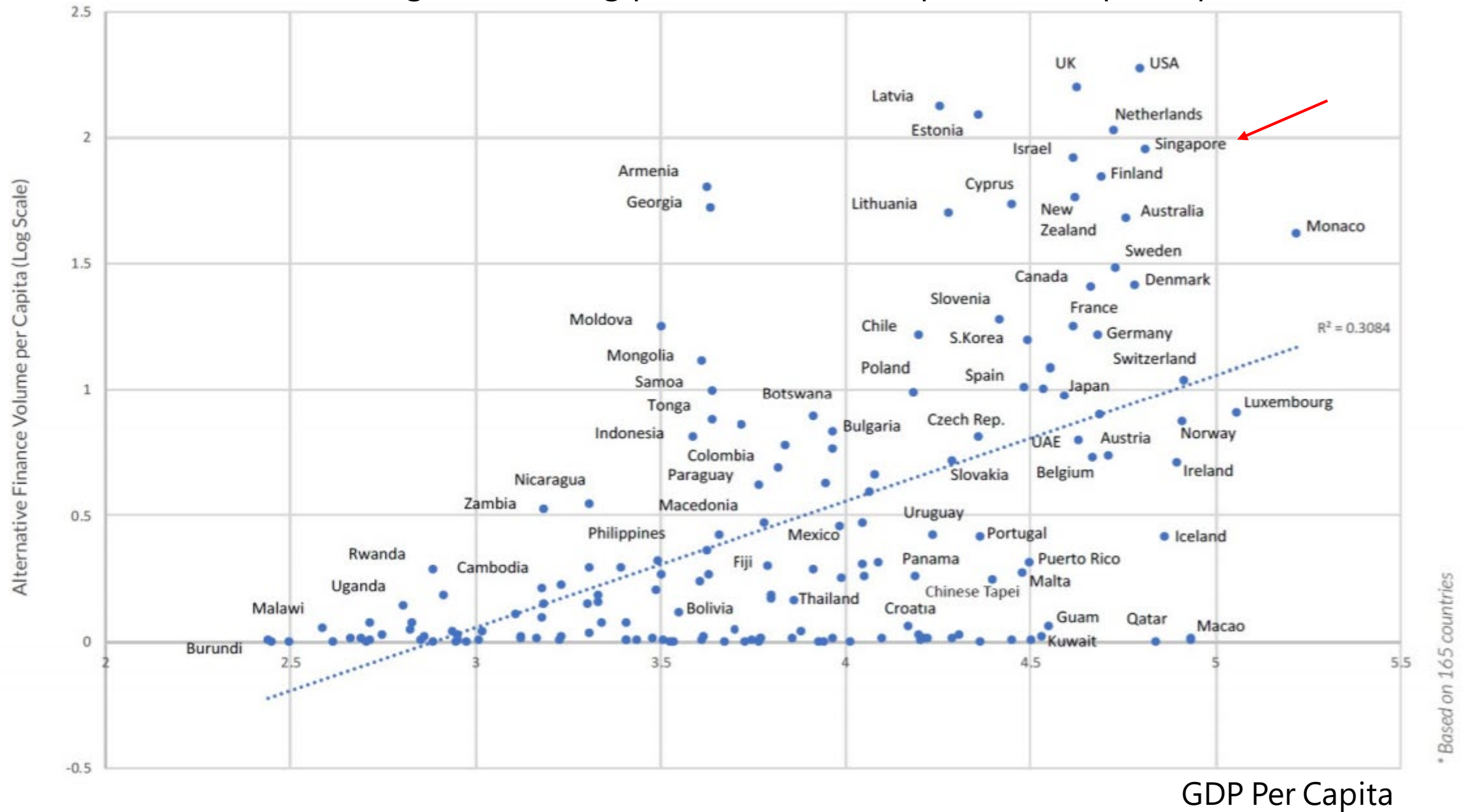
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Crowdfunding has a strong positive relationship with GDP per capita



# Drivers of Crowdfunding Volume

Panel data analysis:

**Time** - 2013 to 2017

**Countries** - Australia, India, Indonesia, Japan, Korea, Malaysia, UK, US and Singapore

$$\ln_{CF}_{it} = \alpha + \beta_1 \ln_{GDP}_{it} + \beta_2 \ln_{GDP}_{it}^2 + \beta_3 \ln_{VA}_{it} + \beta_4 \ln_{DB}_{it} + \beta_5 \ln_{ICRG}_{it} \\ + \beta_6 \ln_{FA}_{it} + \beta_7 \ln_{FD}_{it} + d_1 C_{1i} + d_2 C_{2i} + \dots + d_{n-1} C_{n-1,i} + \varepsilon_{it}$$

# Crowdfunding is driven by:

- Higher GDP per capita (+)
- Greater availability of venture capital (+)
- Lower financial institutions access (e.g. fewer bank accounts) (-)
- Greater financial institutions depth (e.g. size of non-bank sector) (+)
- Institutional factors such as ICRG and Doing Business Index were positive but not significant

Table 1: Regression Results for Crowdfunding per Capita using Fixed Effect Model

VARIABLES	(1) Main Model
GDP per Capita	31.03*** (11.91)
Square of GDP per Capita	-1.722*** (0.546)
Availability of Venture Capital	9.975*** (1.194)
Financial Institutions Access	-6.236* (3.266)
Financial Institutions Depth	18.65*** (5.022)
AUS	6.982** (2.793)
IND	12.55 (7.756)
IDN	26.48*** (7.853)
JPN	5.500 (3.351)
KOR	4.934 (3.425)
MYS	-10.19** (4.799)
GBR	3.834 (3.087)
USA	8.411*** (2.715)
Constant	-149.8** (72.59)
Observations	45
R-squared	0.933
Number of Countries	9
Robust	Yes
RMSE	0.978
Dependent Variable	Crowdfunding per Capita



## **Policy Implications**

- Policies do matter to the development of crowdfunding
- Foster a conducive environment to increase the depth and breadth of the financial sector
- Facilitate availability of venture capital



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Banking is necessary, banks are not

~ **Bill Gates**

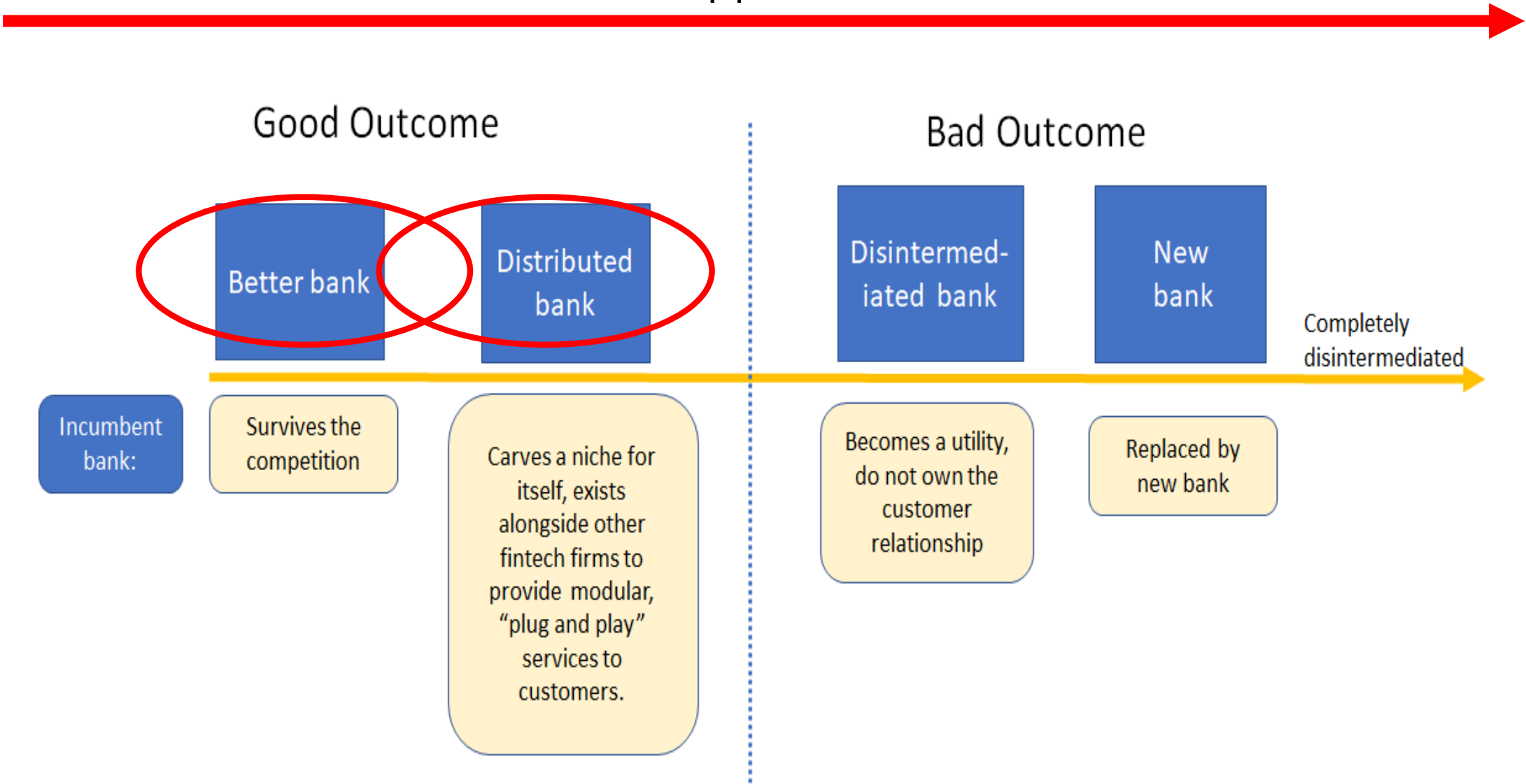




No dis-  
intermediation

Would banks  
disappear?

Full  
disintermediation





# How are Singapore's banks responding?

- Competition from fintech forces banks to innovate
- Becoming fully digital (DBS bank)
- Building digital banks overseas (e.g. DBS Digitalbank in India)
- Partnering with fintech (UOB + Ourcrowd, OCBC + Robo-invest)
- Covid-19 crisis has changed the dynamics



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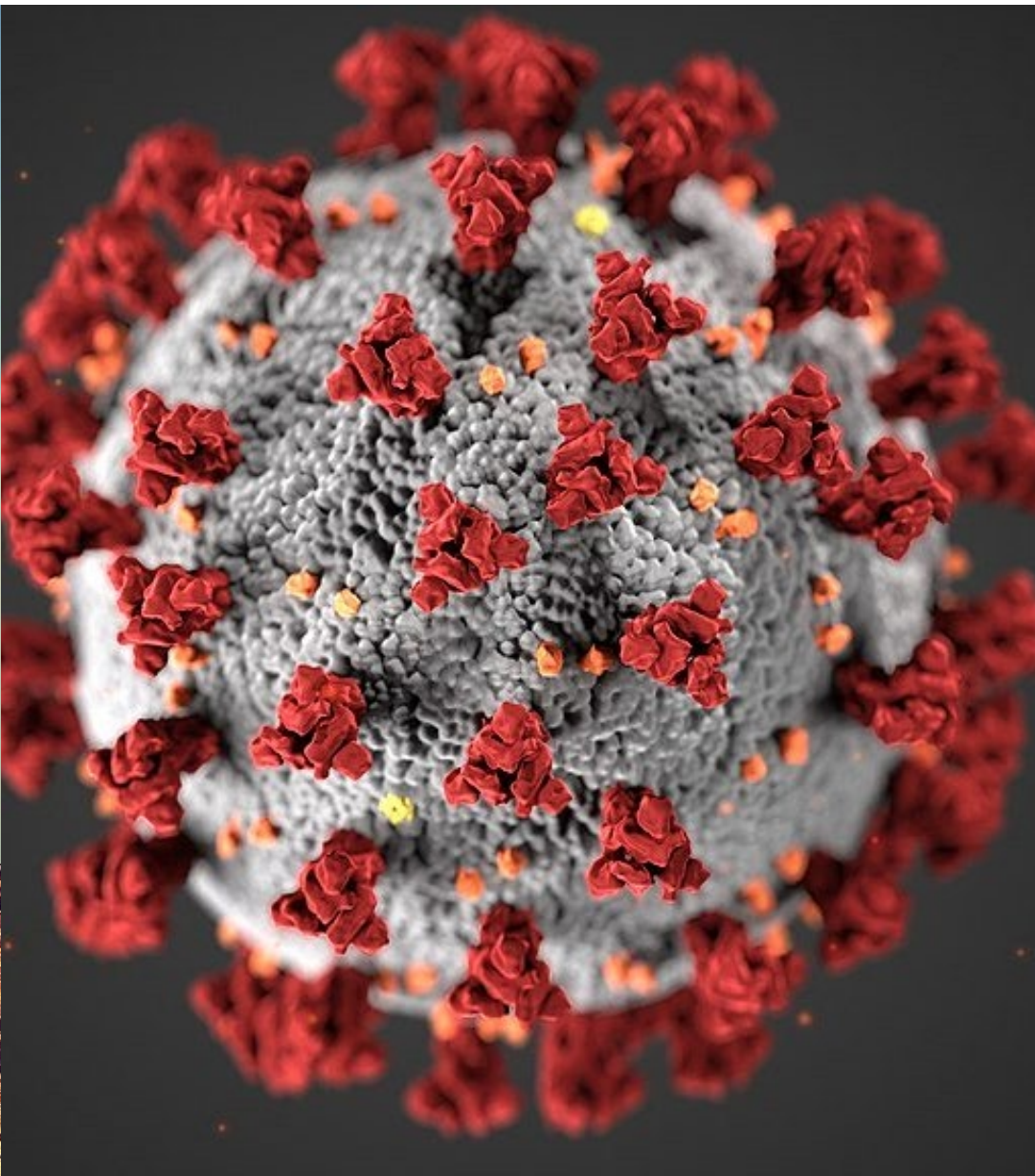
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# Covid-19 is an existential threat to Crowdfunders



- They are start-ups themselves and dependent on venture capital funding
- Squeezed from both ends
  - Funding is drying up
  - Default rates are rising
- In many countries, support for SMEs from governments are channeled through banks, not crowdfunders.
- Only those with the stronger balance sheets will survive



THANK YOU