Gaining from digital disruption: The Thai financial landscape in the digital era

Bank of Thailand Symposium 2019

Thammarak Moenjak

Vorapat Praneeprachachon

Tanatas Bumpenboon

Pornchanok Bumrungruan

Chompoonoot Monchaitrakul

Outline

- Competitiveness assessment of the Thai financial sector in four dimensions
- ► Competition in the Thai banking sector: A measure over time
- ► SME access to credit: An area for improvements
- ► Enhancing competitiveness of the Thai financial sector in the digital era

Using Global Financial Database framework, competitiveness of a financial sector can be measured through

Depth

The size of financial institutions relative to the economy

Efficiency

The efficiency of financial institutions in providing financial services

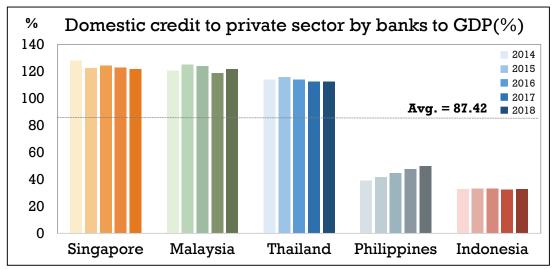
Access

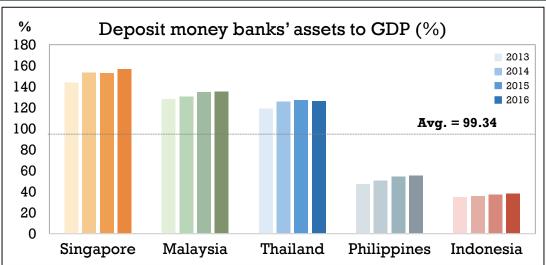
The degree to which individuals can and do use financial institutions

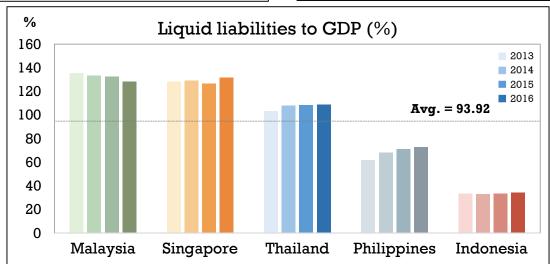
Stability

The stability of financial institutions

Depth: How deep is the financial sector embedded in the economy?



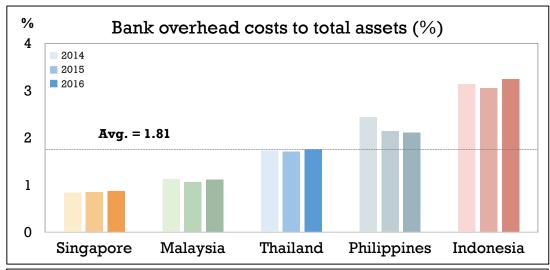


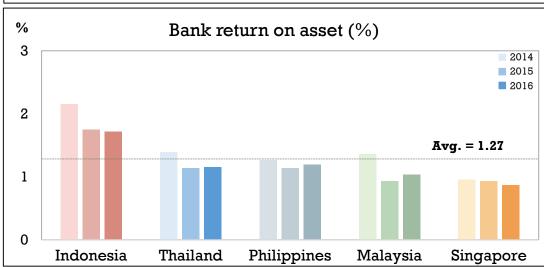


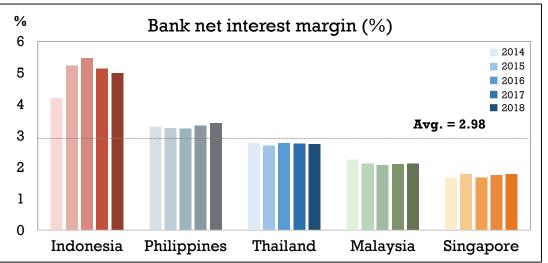
Thailand is around ASEAN-5 average for the period in all measures

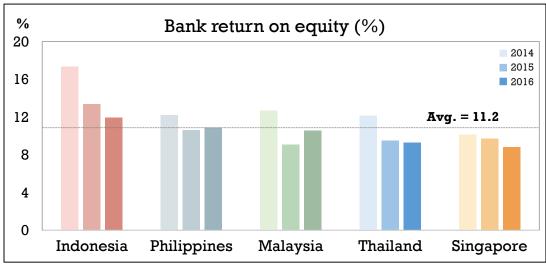
Source: World Bank

Efficiency: Can banks keep costs down and make good returns?





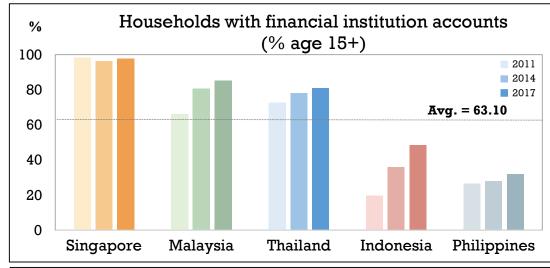


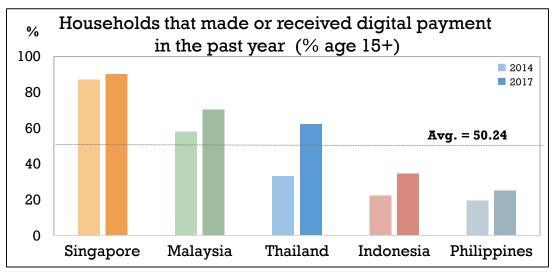


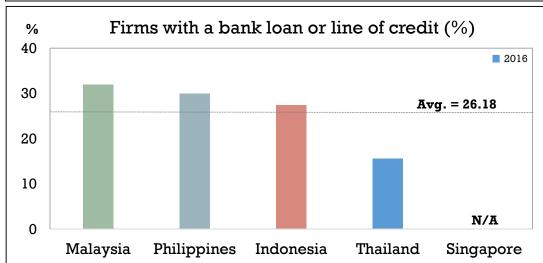
Thailand is in line with peers

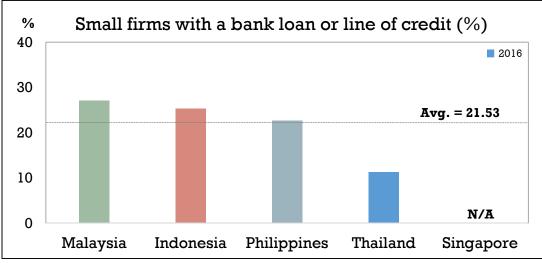
Source: EMEAP and World Bank

Access: How well can households and firms access financial services?



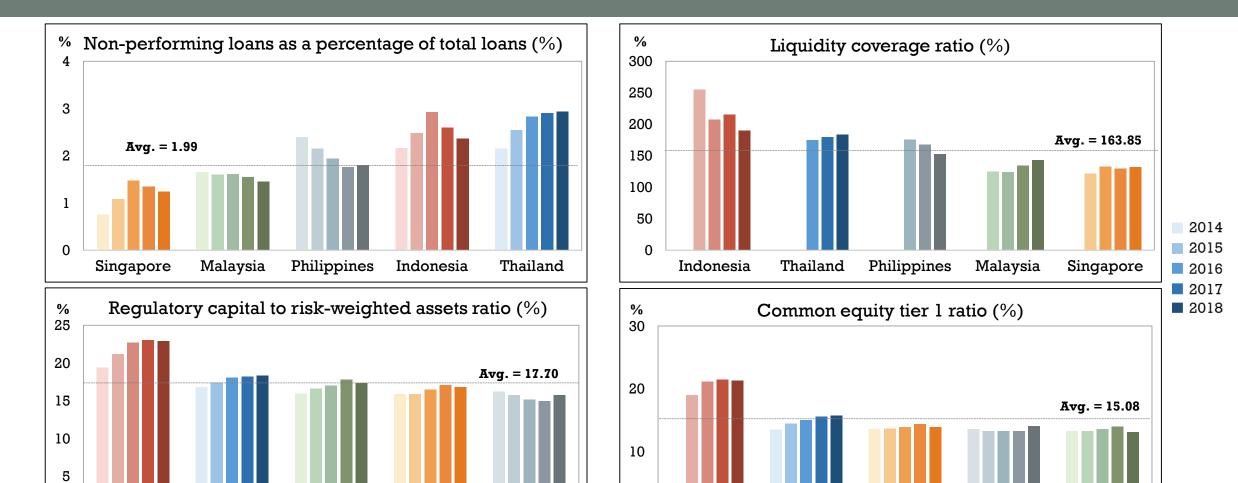






Household access to financial services is reasonably high. SME access to financial services is somewhat lagging.

Stability: How much cushion do financial institutions have?



Thailand has high levels of cushion on average compared to peers

Indonesia

Thailand

Philippines

Malaysia

Singapore

Philippines

Source: EMEAP

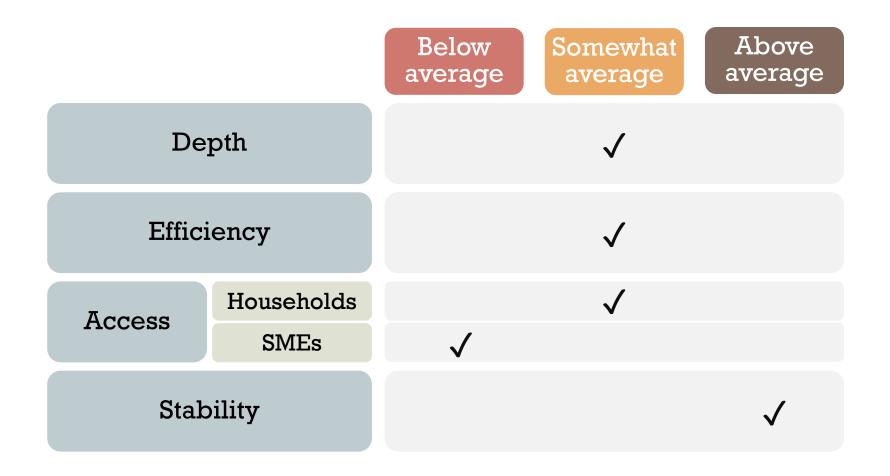
Indonesia

Thailand

Malaysia

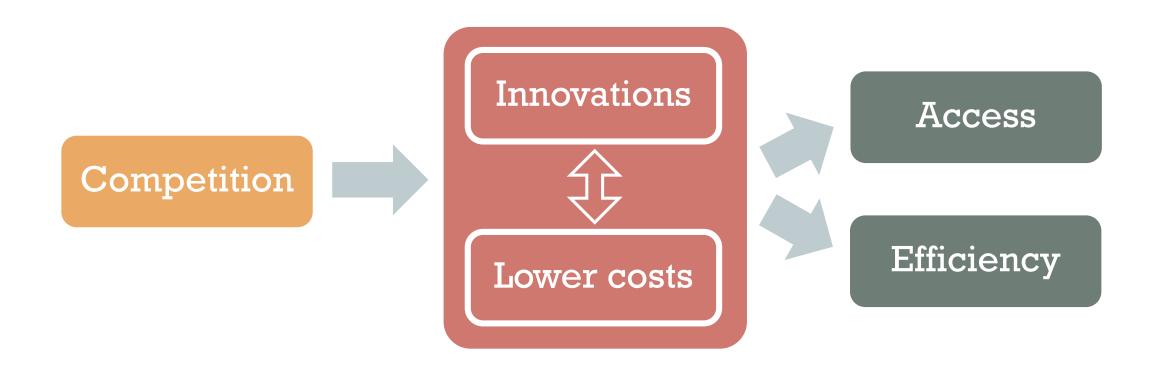
Singapore

Snapshot of Thailand's financial sector compared to ASEAN-5 peers



^{*} This table aims to provide a general assessment of Thailand compared to ASEAN-5 peers and neither does the information herein suggest a global nor regional benchmark. Differences among countries are largely attributed to, among other things, unique characteristics, infrastructures, and geography of countries selected and do not necessarily suggest a desired level of economic development or otherwise.

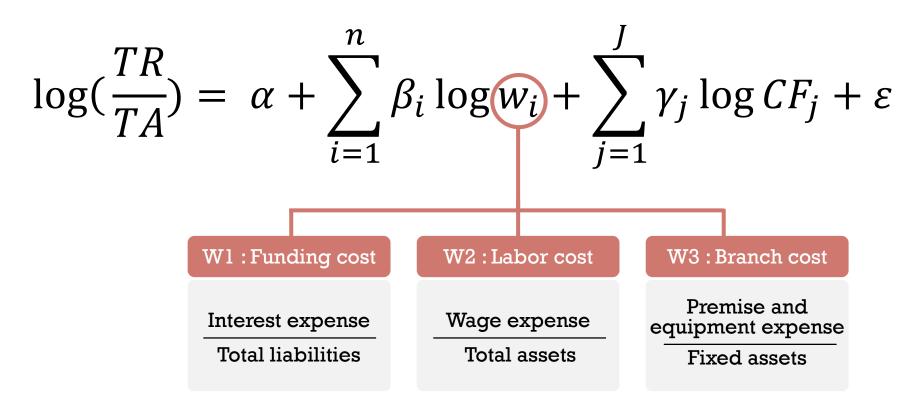
Can competition help improve competitiveness?



Competition is supposedly a key driver for access and efficiency but is not a sole factor

Measuring competition in the financial sector: H-statistic

H-statistic measures sensitivity of changes in revenues given changes in input costs



- ► Consolidated financial statement from 15 Thai commercial banks
- ► Quarterly data from 2013 to 2018

Measuring competition in the financial sector: H-statistic

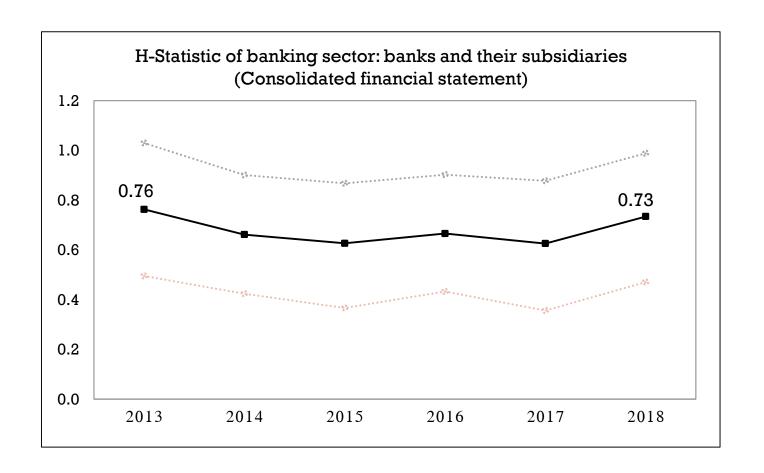
H-statistic measures sensitivity of changes in revenues given changes in input costs

$$H^r = \sum_{i=1}^n \beta_i$$

H-statistic	Competition level
H ≤ 0	Monopoly or collusive oligopoly
0 < H < 1	Monopolistic competition
H = 1	Perfect competition

- ▶ If value of H-statistic closes to $1 \rightarrow$ players are close to being price takers (high competition)
- \blacktriangleright If value of H-statistic closes to $0 \rightarrow$ players are close to being price makers (low competition)

H-statistic for the Thai banking sector calculated over time



- ► Authors' H-statistic is consistent with that of other studies
- ► The Thai banking sector is operating under monopolistic competition

A puzzle ...



If the competition in the banking sector is so high, why is SME access to bank finance so low?

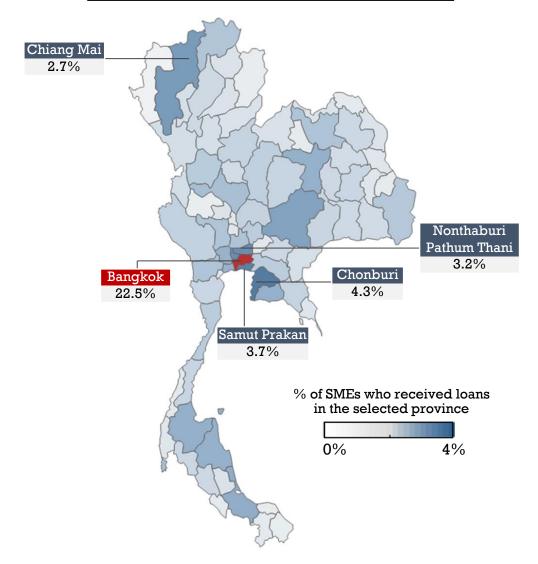
Maybe ...



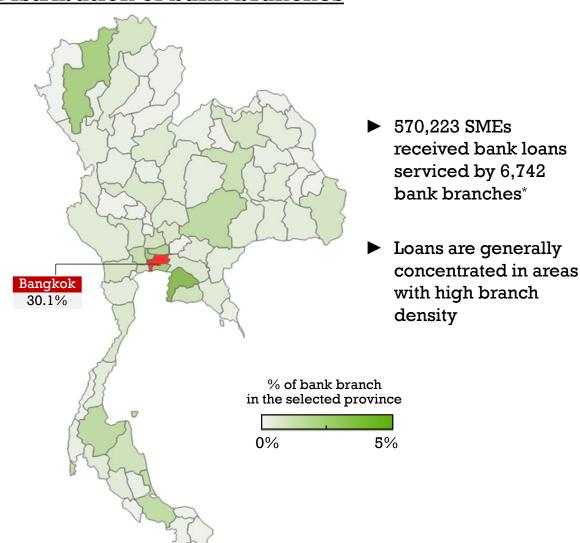
- Banks are competing for the same fixed-size pie
- There are some inherent inefficiencies in the lending process

Based on data from 1.29 million SMEs from 15 commercial banks and six SFIs, banks concentrate their SME lending in Bangkok and the central region.

Distribution of bank customers

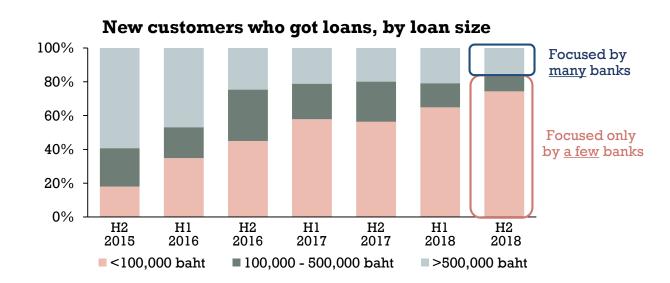


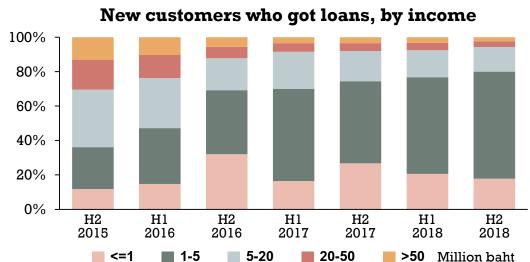
Distribution of bank branches

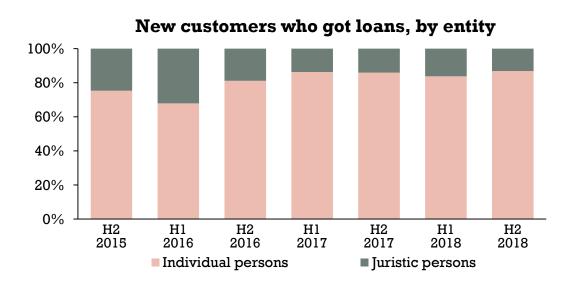


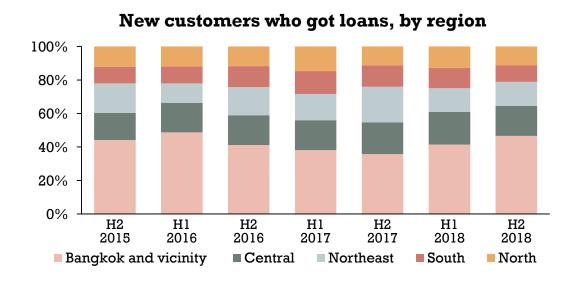
* The number of branch is for 15 Thai commercial banks only

Smaller loans have been increasingly granted, and also to the less affluent segment. However, Bangkok and vicinity still received the largest share.

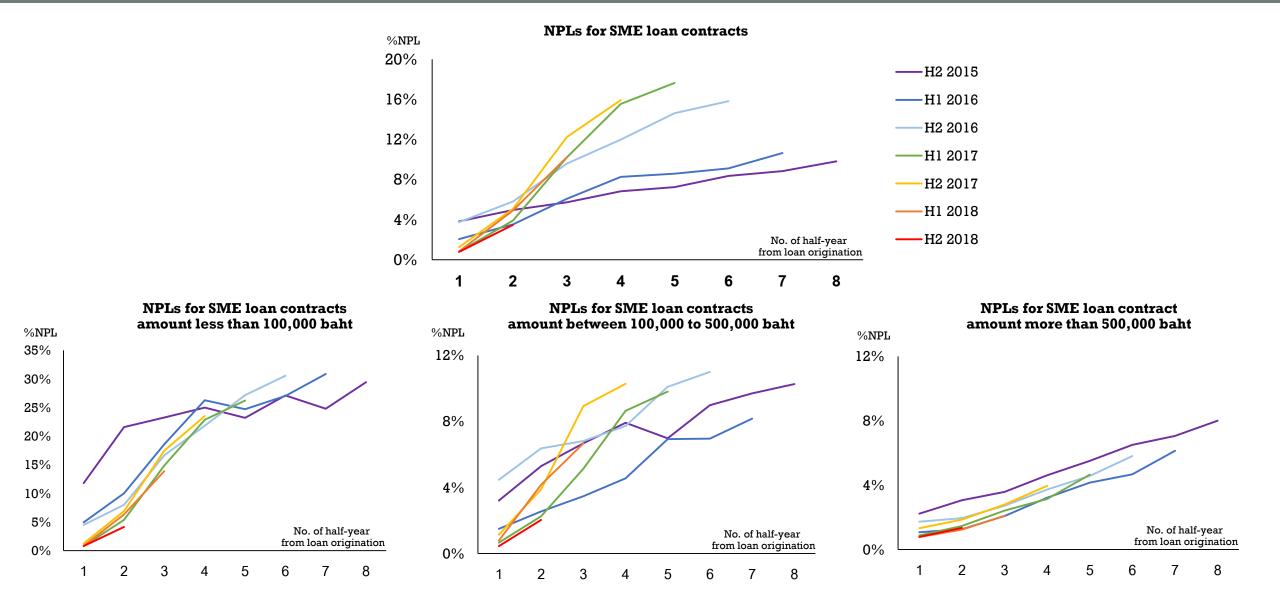




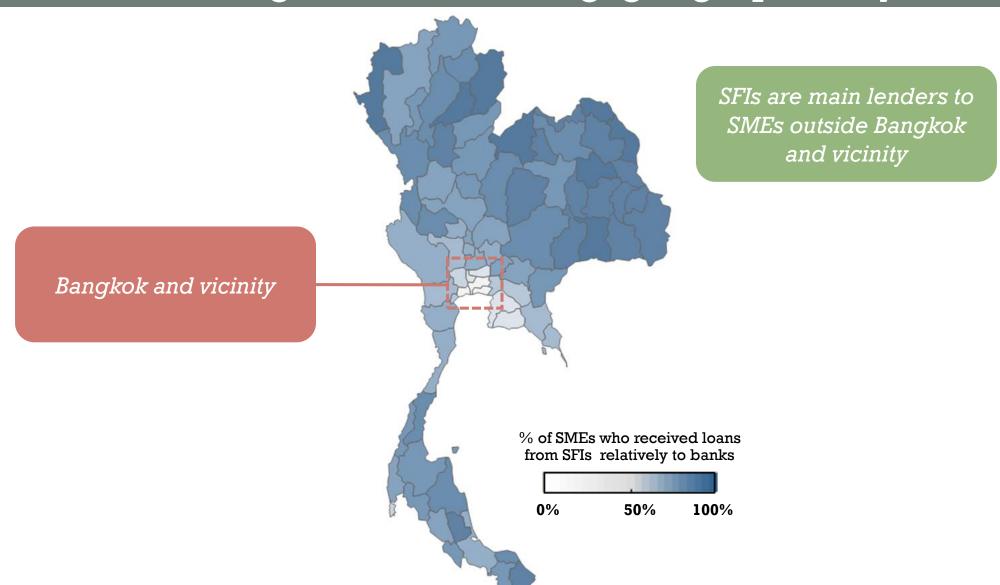




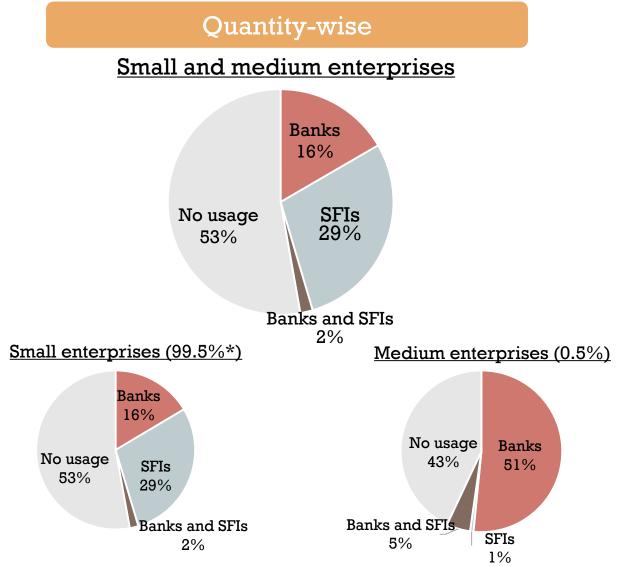
However, as bank penetration into SME segment increased, NPLs rose over time



SFIs have stepped in, and helped complement banks in coverage of SME lending, geographically



SFIs can help fill the access gap up to a point, quantity-wise. Quality-wise, gaps, however, remain.

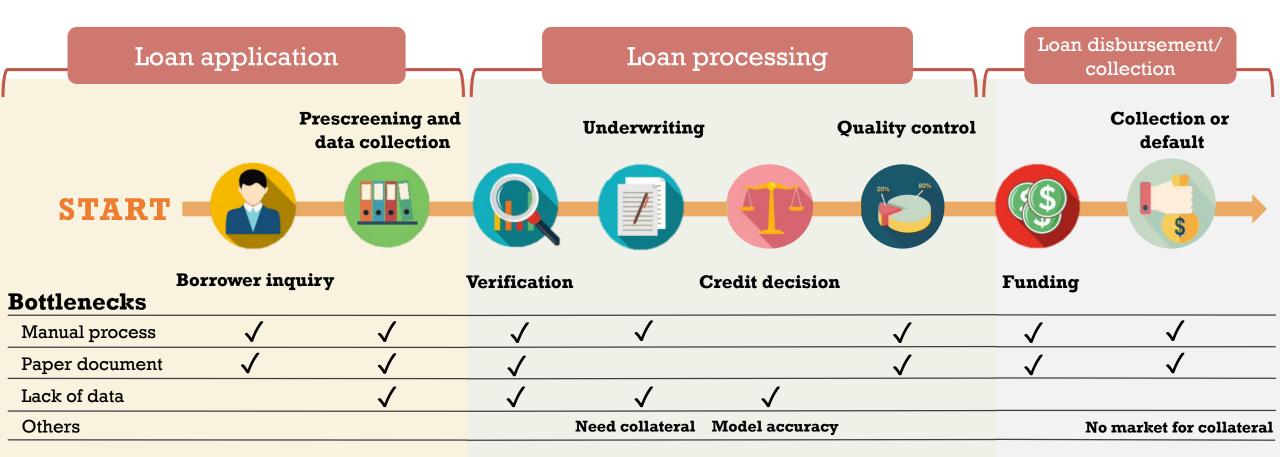


Quality-wise

- ► Banks still need collaterals
- ► Processes are still time consuming
- ► SMEs still use inappropriate products, e.g. credit card loans and personal loans

^{*} Small enterprises are made up 99.5% of total SMEs

From BOT's Regulatory Guillotine 2018: bottlenecks in SME loan origination



Bottlenecks lead to: Information asymmetry and frictions in process

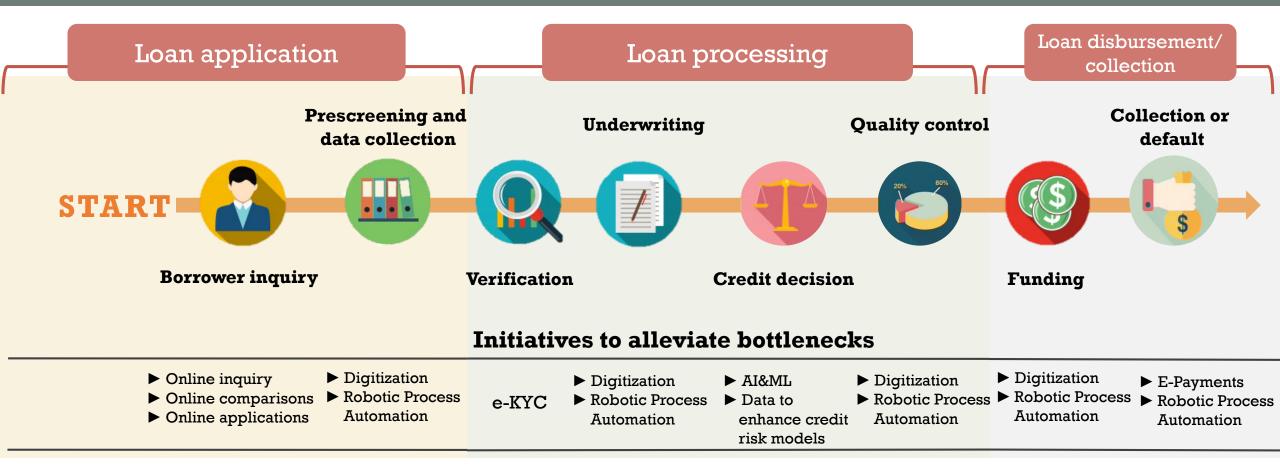
- ► Higher costs and more time consuming to serve SMEs than to large corporates
- ► Incapability to assess SMEs accurately: Require collaterals

Thailand 4.0



Can we use technology and data to help unlock the bottlenecks?

Harnessing technology and data to reduce pain points in SME financing



Key success factors:

- ► Interoperability: Facilitating data and payment flows
- ► A vibrant ecosystem: Filling in various niches
- ▶ Agile, forward looking regulators: Encourage innovations with acceptable risk tolerance

Solving the puzzle:

It takes more than just the banks!

► Digitization and process automation

Banks

Funding

Collaborate

Compete

New players

alternative funding

SMEs

- ► Leverage on technology
- ► Create digital footprints

- Provide business solutions

 e.g. cloud-based accounting,
 payment gateway
- ► Analysis of behavioral data from alternative sources
- Digital funding sources with lower operational costs
 - ▶ Digital banks
 - ► P2P lending platforms
 - Crowdfunding

Regulators

- ► Interoperable infrastructures
- Regulatory sandboxes
- ► More flexible regulations and forward-looking mindset

Key takeaways

- ▶ Thai financial sector compares reasonably with peers in the four dimensions
- ▶ Banks are already competing intensely, but SME access to credit remains a sore point
- ► The use of technology and data has the potential to alleviate bottlenecks in SME lending

In the digital era:

- ▶ Interoperable infrastructures would be key to capture network values
- ▶ New players could help fulfill the gaps by leveraging on data and technology
- ▶ Right incentive structures are critical, e.g. to induce SME adoption of technology