Supplement

Chapter 13

Financial Industry Structure

Banking Industry Structure

Financial Innovation and the Decline of Traditional Banking

- **Low-cost source of funds**; *checkable deposits,* **declined**
- *Information technology* has **reduced** need for banks to finance <u>**short-term credit needs**</u>
- *Information technology* has <u>**lowered transaction costs for other financial institutions**</u>, ***increasing competition***

Financial Innovation and the Decline of Traditional Banking

- Banks' Responses
  - **Expand into new and riskier areas of lending**
    - ***Commercial real estate loans***
    - ***Corporate takeovers and leveraged buyouts***
  - Pursue **off-balance-sheet** activities
    - ***Non-interest income***

Are Bank Consolidation Good Things?

- **Benefits**
  - ***Driving <u>inefficient banks</u> out of business***
  - Also, increased efficiency from ***economies of scale and scope***
  - *Lower probability of bank failure* from ***more diversified portfolios***

Are Bank Consolidation Good Things?

- **Costs**
  - *Elimination of small banks* may lead to **less lending to small business**
  - Banks *expanding into new areas* may ***take increased risks and fail***

Thailand Financial Industry

Additional lecture made for EE432 Monetary Theory and Policy at Thammasat University
(This is not part of Cecchetti and Schoenholtz (2017) Money, Banking, and Financial Markets. McGraw-Hill Textbook)

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

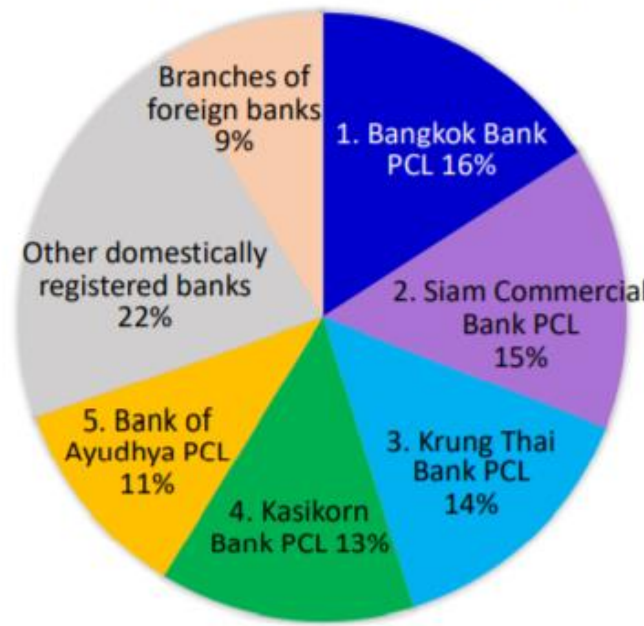
Thailand's Financial Institutions

2. Financial institutions system: Number and asset size of major financial institutions

Types of financial institutions	2019 Q3 P/	
	Number	% of total assets of financial institutions
Depository corporations		
Commercial banks	30	45.04
Specialized financial institutions (SFIs)	6	15.13
Savings cooperatives [1/]	1,412	6.66
Finance companies	2	0.06
Money market mutual funds (MMFs)	47	0.52
Other financial corporations		
Mutual funds (excluding MMFs)	1,560	10.73
Insurance companies	81	10.18
Leasing companies	771	1.97
Credit card, personal loan and nano finance companies under regulation [2/3/]	39	2.39
Provident funds	377	2.65
Government pension fund	1	2.08
Asset management companies	59	0.75
Securities companies	48	0.87
Agricultural cooperatives [4/]	3,346	0.58
Pawnshops	689	0.21
Non-depository specialized financial institutions [5/]	2	0.18

P/ Preliminary data.
1/ Savings cooperatives data do not include credit union cooperatives.
2/ Credit cards and personal loans under regulation include only financial institutions that operate with licenses issued by the Bank of Thailand and satisfy the definition of financial institutions according to the IMF Monetary and Financial Statistics Manual (2000).
3/ There were 33 nano-finance operators as of 2019Q3.
4/ Agricultural cooperatives data were as of end-2018.
5/ Secondary Mortgage Corporation (SMC) and Thai Credit Guarantee Corporation (TCG).

Share of commercial banks by asset size



Performance of Thai Banking System in 2020Q2

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Overall Performance of the Thai Banking system in the Second Quarter of 2020

- The Thai banking system remained resilient with high levels of capital fund and loan loss provision.
- **Overall bank loan expanded**, while SME loan contracted at a lower rate due to new loans from soft loan scheme.
- **Consumer loan growth declined in almost all portfolios,** except mortgage lending which improved in line with the demand for residential properties.
- Gross non-performing loan (NPL or stage 3) was **stable** due to relief measures for debtors affected by COVID-19.
- **Banking system's profitability declined** due to higher provisioning expenses as a cushion against loan quality deterioration.
- **Banks' core earnings declined** in line with the economic contraction.

Performance of Thai Banking System in 2020Q2

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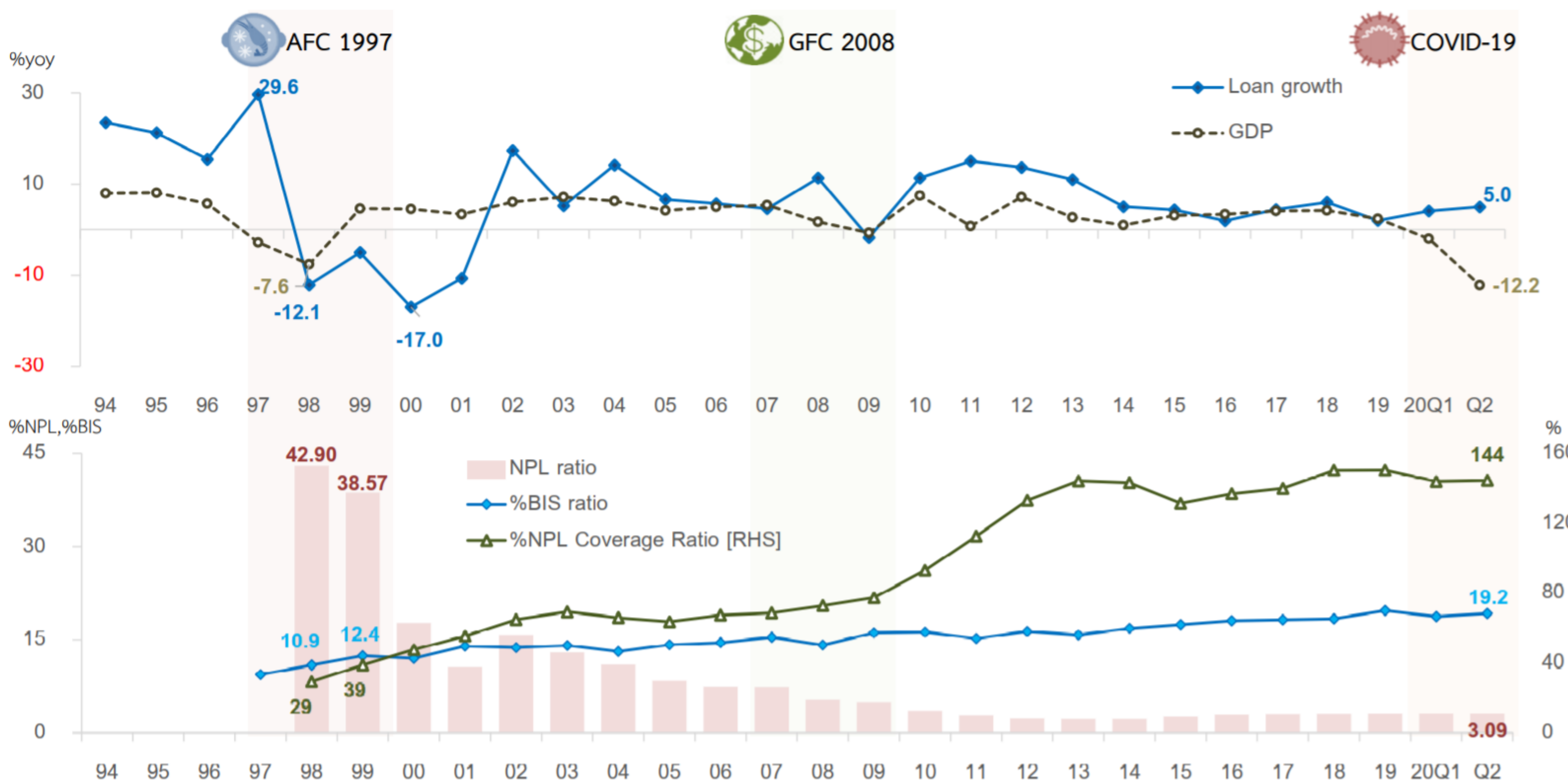
The Thai banking system remained resilient with higher levels of capital fund and loan loss provision than those of the past crises.



Performance of Thai Banking System in 2020Q2

ธนาคารแห่งประเทศไทย
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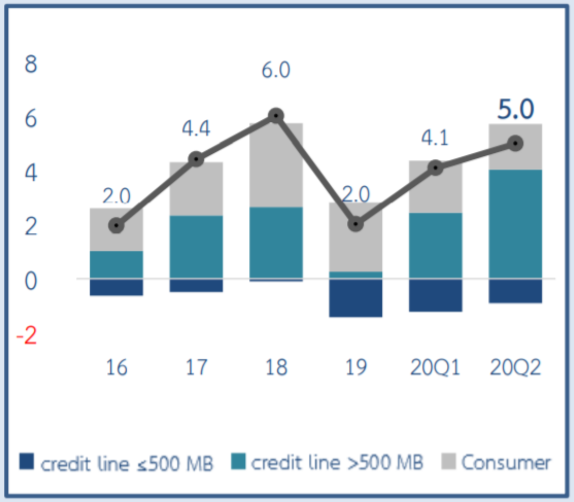
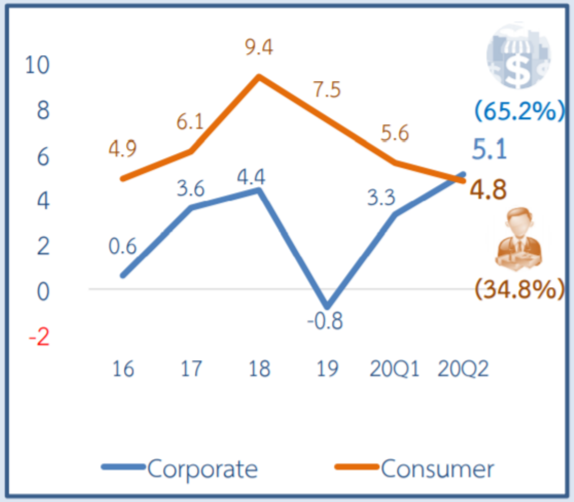
Bank loan growth increased from public sector loan, while SME loan contracted at a lower rate due to new loans from soft loan scheme.

Contribution to total loan growth



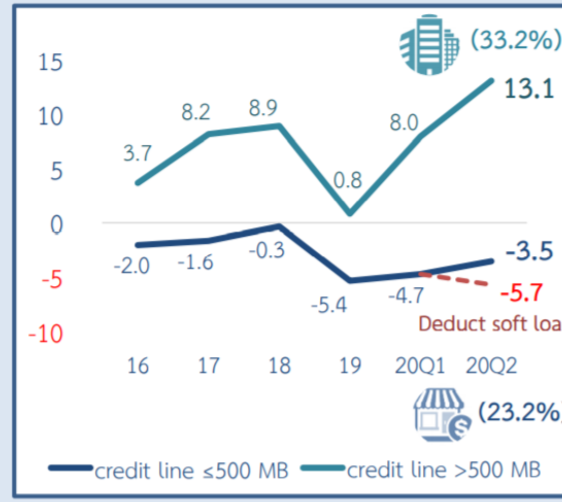
Bank loan growth was mainly driven by public sector loan.

Loan growth classified by loan portfolios



Corporate loan expanded from public sector loan and soft loan, while consumer loan grew at a slower pace.

Corporate loan growth classified by size



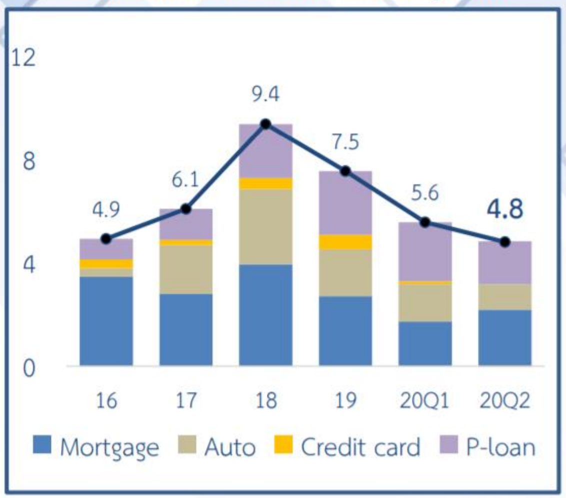
Large corporate loan accelerated from loans to public sector and some corporates. SME loan contracted at a lower rate due to soft loan.

Performance of Thai Banking System in 2020Q2

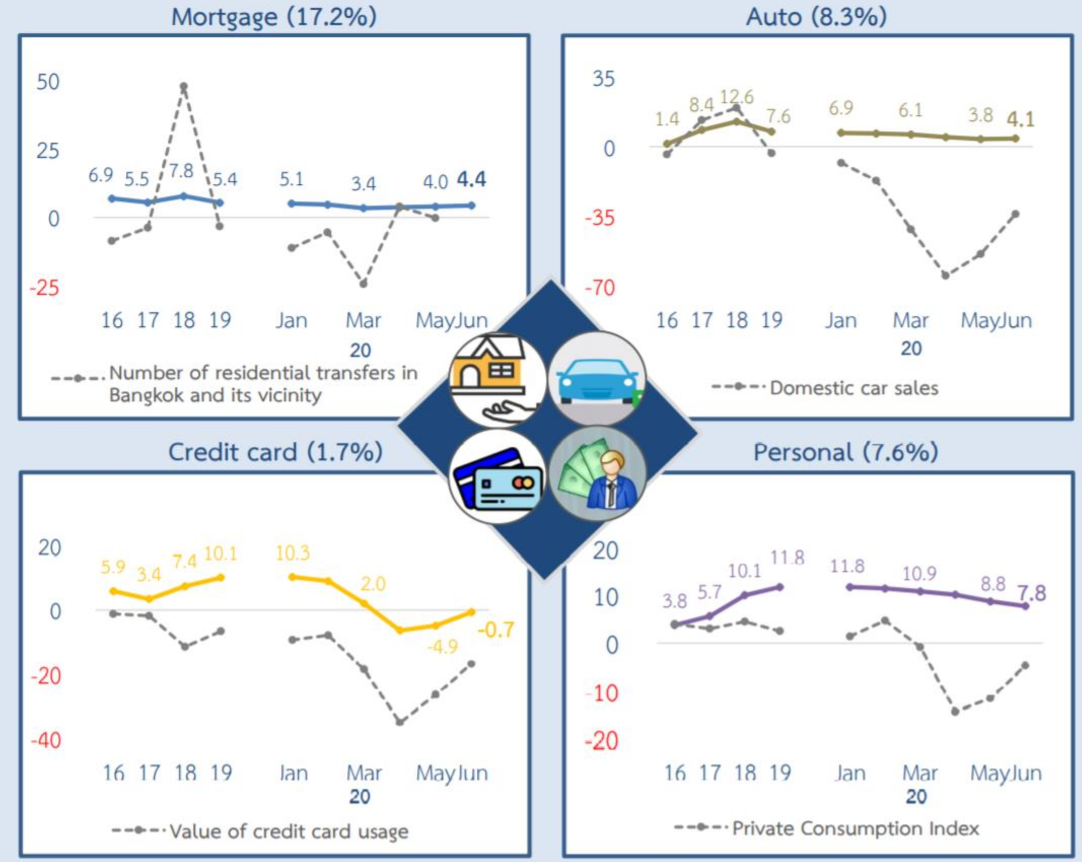
ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Consumer loan growth declined in almost all portfolios in line with economic contraction.

Contribution to consumer loan growth



- **Mortgage lending expanded** in line with higher demand in the housing market.
- **Auto, credit card and personal loans grew at a slower pace** due to contraction in economic activities.



Performance of Thai Banking System in 2020Q2

ธนาคารแห่งประเทศไทย
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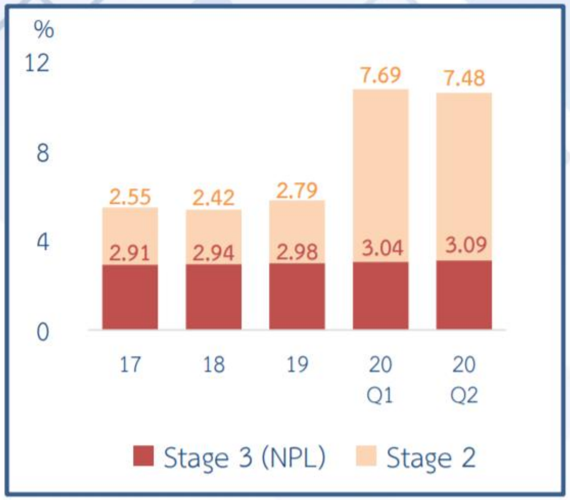
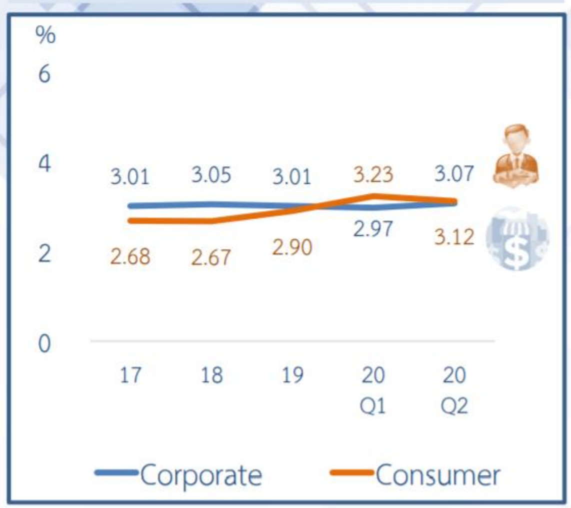
Overall loan quality remained stable as a result of pre-emptive relief measures and NPL management through an increase in debt write-off.

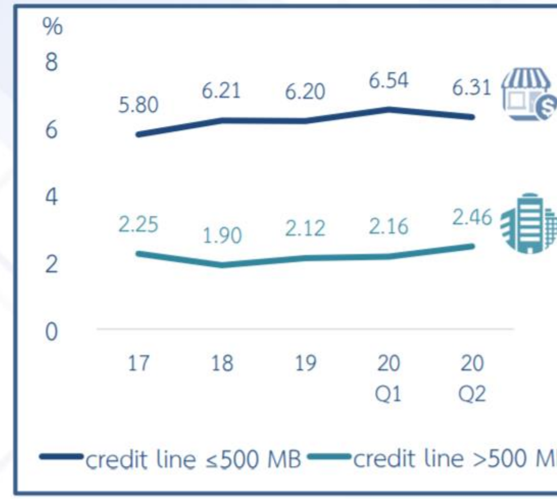
Stage 3 (NPL) and Stage 2 of total loan



Stage 3 classified by loan portfolios



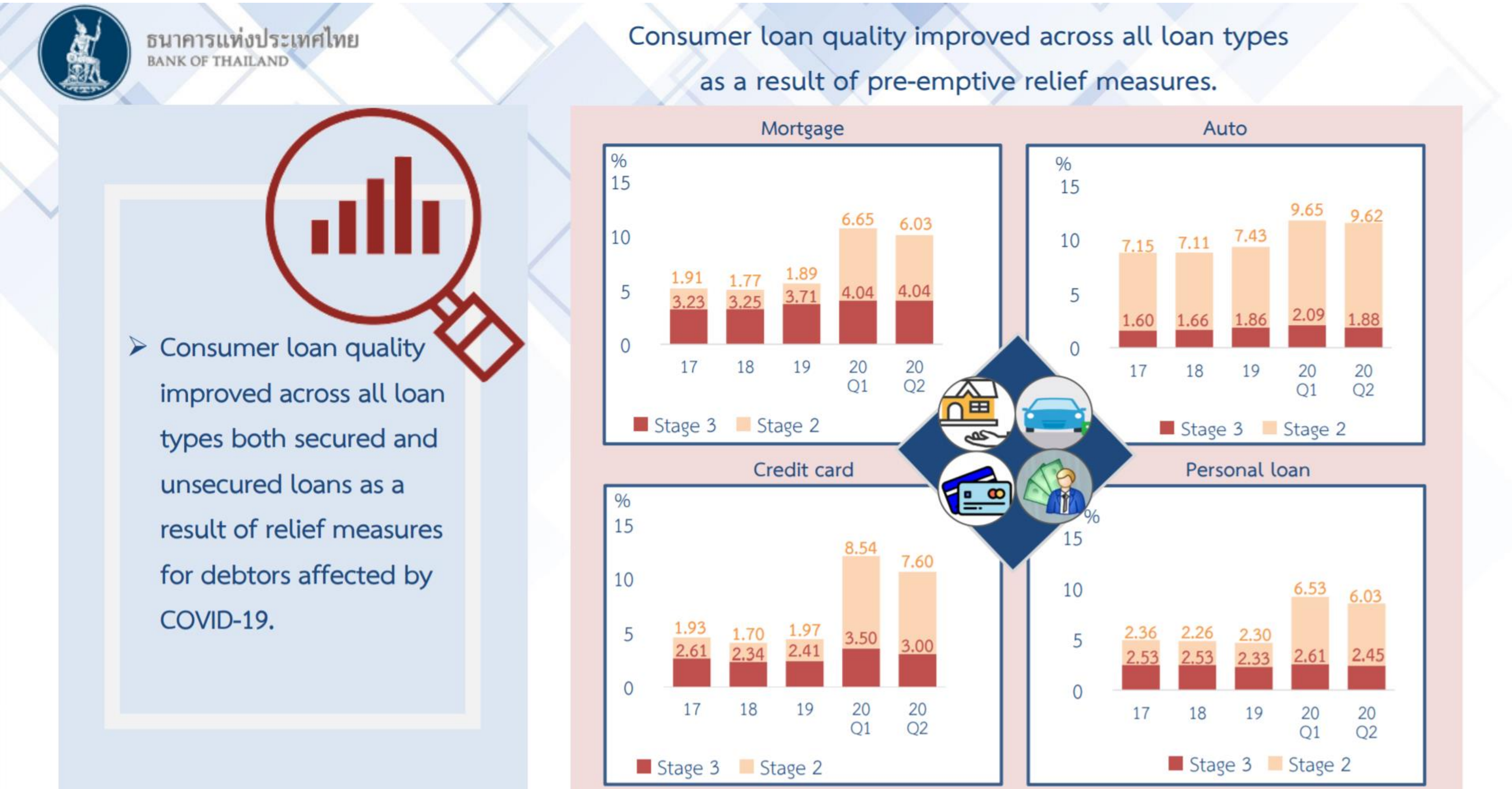
Stage 3 of corporate loan classified by size



- Credit assistance measures and the revisions to rules on loan classification and provisioning helped alleviate the impact of COVID-19 outbreak on banks' loan quality.
- NPL of corporate loan increased mainly from a large corporate in airline business.

- **Stage 2: The special mentioned loans** SM —30 days past due
- **Stage 3: Non-performing loans** (NPL—90 days past due)

Performance of Thai Banking System in 2020Q2



- **Stage 2: The special mentioned loans** SM —30 days past due
- **Stage 3: Non-performing loans** (NPL—90 days past due)

Performance of Thai Banking System in 2020Q2

ธนาคารแห่งประเทศไทย
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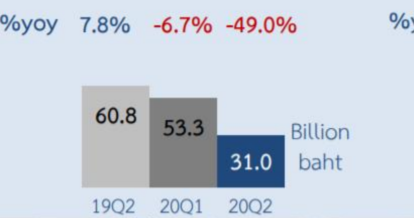
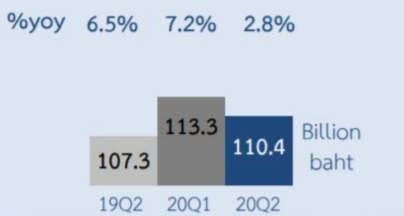
Net profit declined due to higher provisioning expenses, coupled with lower net interest income as well as non-interest income.

Net profit

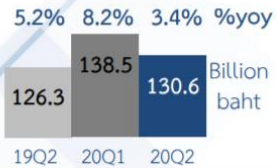


Operating profit



Profitability ratios

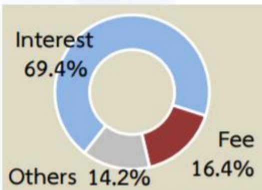
Net interest income



- Lower net interest income due to lower loan rates.

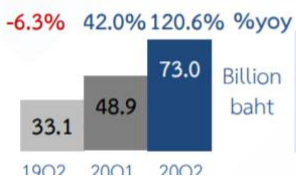
Net fee income

- Lower net fee income from credit card, brokerage and bancassurance following a slowdown in economic activities.



Income (billion baht/ %yoy)	62Q2	63Q1	63Q2	62Q2	63Q1	63Q2
Credit card fee (2.7%)	10.1	9.7	6.7	8.5%	-7.4%	-33.0%
Brokerage fee (1.2%)	3.8	3.9	2.9	0.7%	19.4%	-22.8%
Bancassurance fee (2.0%)	5.9	5.6	5.1	-4.9%	-1.4%	-13.5%

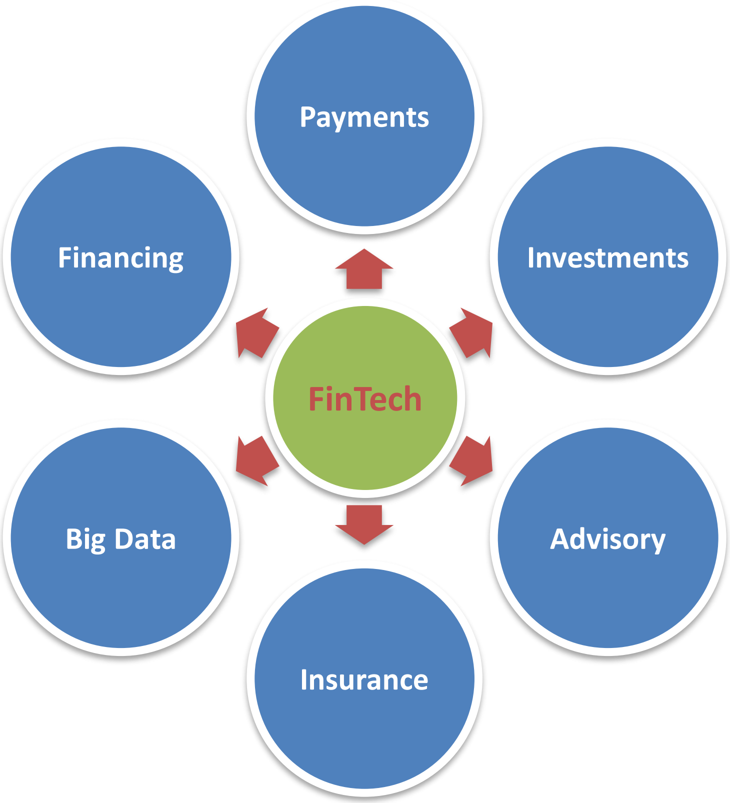
Provisioning expenses



- Banks set aside higher provisioning expenses to cushion against the impact of COVID-19 outbreak on loan quality.

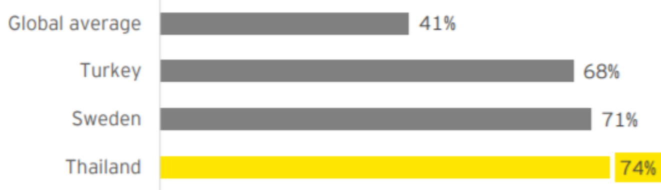
FinTech

- **<u>FinTech</u>** describes the ***intersection between software and technology*** to **deliver financial services.**
- May refer to ***technical innovation*** *applied in a financial services context.*



Thailand FinTech Landscape

Global Internet Banking service access



With a strong mobile and internet penetration rate, major banks in Thailand have been constantly revamping their banking applications through strengthening the push on the use of online services over physical branches. These services have hence, revolutionized the FinTech ecosystem and the nation's economy, where Thailand top the global ranking for internet banking services.

133%

Mobile penetration rate with 92 million mobile subscribers, among the 69 million population in Thailand

Thailand Digital Infrastructure

Factors	Drivers of NRI*	Thailand Score	Thailand world ranking (2016)
Environment	The political, regulatory, business and innovation environments	4.2	54th
Usage	Individual, business and government usage	4.0	63rd
Readiness	Infrastructure, digital content, affordability and skills	4.9	62nd
Impact	Economic and social impact	3.7	65th

Thailand's Global ranking for NRI*

62

out of 139 Countries

27th out of 179 countries global ranking for internet speed

76.00 Mbps average connection speed by IPv4

11.89 fixed broadband internet subscription/100 population

53% of the Thais with Internet access

176 mobile cellular subscriptions

Sources : EY Analysis

* : The Network Readiness Index (NRI) is a metric derived by the World Economic Forum (WEF) to help assess and rank countries on their ability to exploit opportunities afforded through technology, more specifically information and communications technology (ICT). The index, based on four key drivers, shows that Malaysia is ranked favorably in context of a country grouping that is classified as "emerging and developing Asia," being the only country in the said group to rank in the top 50.

Thailand FinTech Landscape

Relative comparison of digital landscape across ASEAN

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Population (mn)	258	30.2	100.1	5.5	62.2	92.5
Online Population (mn)	93.4	21.4	42.0	4.1	21.1	44.7
% of Population Online	36%	70.9%	46.5%	74.5%	33.9%	48.3%
Broadband Subscriptions (per 100 inhabitants)	17.1	10	4.8	26.4	9.2	8.1
Bank Account Penetration	36%	81%	28%	96.3%	78%	30.8%
Credit Card Penetration	1.6%	20.2%	3.2%	35.4%	5.5%	1.9%
Smartphone Penetration	24.0%	35.0%	15.0%	85.0%	37.7%	36.0%

Thailand FinTech Landscape

More than 70% of Southeast Asia's population is either underbanked or unbanked

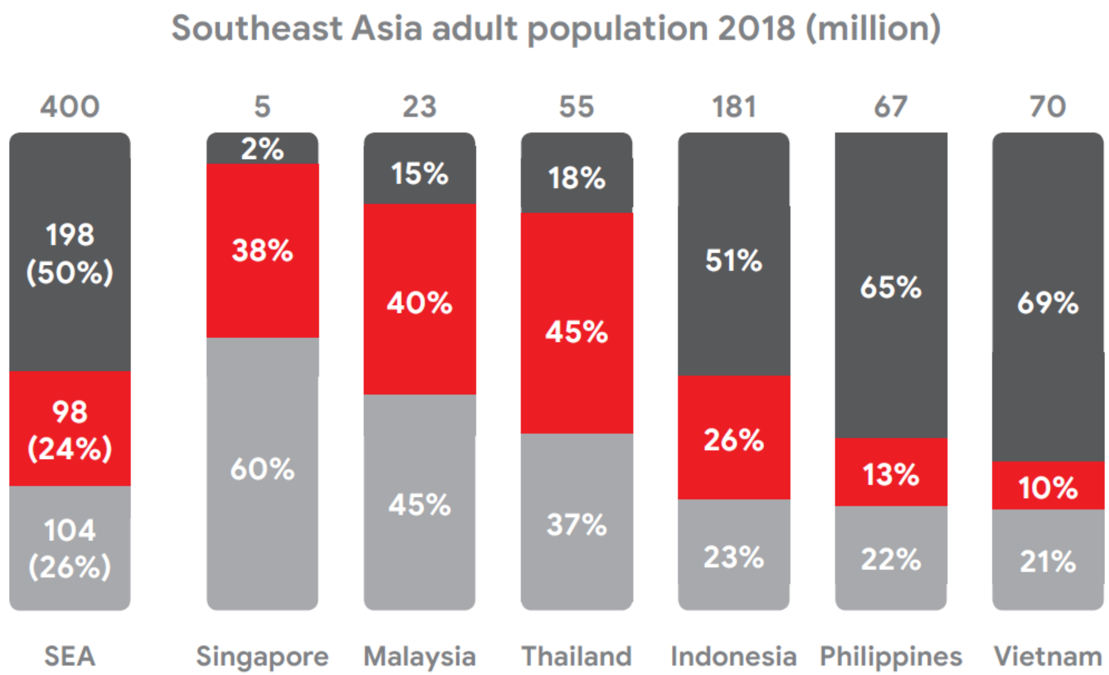
Unbanked:
No access to basic financial services (a bank account)

Underbanked:
Not well-served in financial services or have unmet needs

- No access to credit cards, underinsured, no long-term savings products

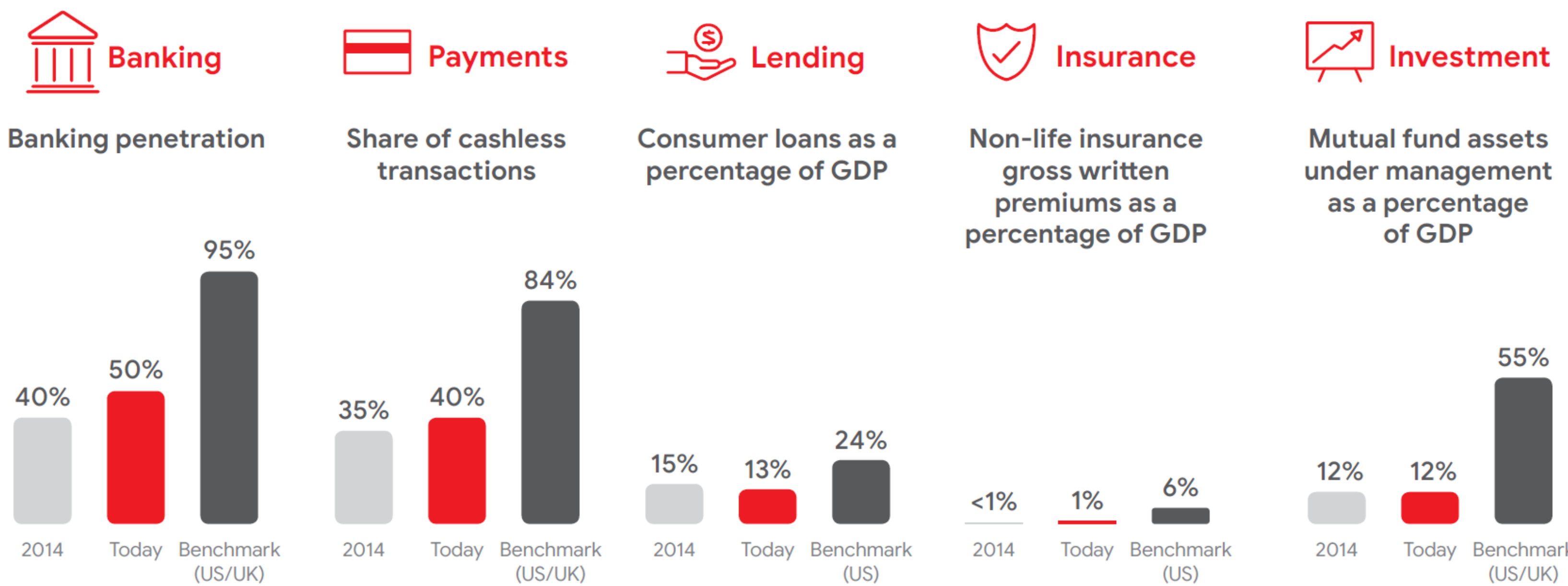
Banked:
Well-served in financial services needs

- Have access to credit cards, insured or have investment products



Thailand FinTech Landscape

Southeast Asia's consumers have less access to financial services than their peers in developed markets



Notes: Benchmark shows current levels in benchmark countries for these services
Sources: World Bank; Euromonitor; GlobalData; Bain and Temasek

Thailand FinTech Landscape

What are digital financial services?

Payments

Digital payments includes all digital consumer-to-business payment methods (credit card, debit card, prepaid card, account-to-account transfer and e-wallet)

Remittance

Digital remittance includes all digital consumer-to-consumer cross-border transfer originated through digital channels (no face-to-face, ATM or phone interaction)

Lending

Digital lending includes all SME (small to midsize enterprises) and non-housing, non-credit card consumer loans originated through digital channels (no face-to-face, ATM or phone interaction)

Insurance

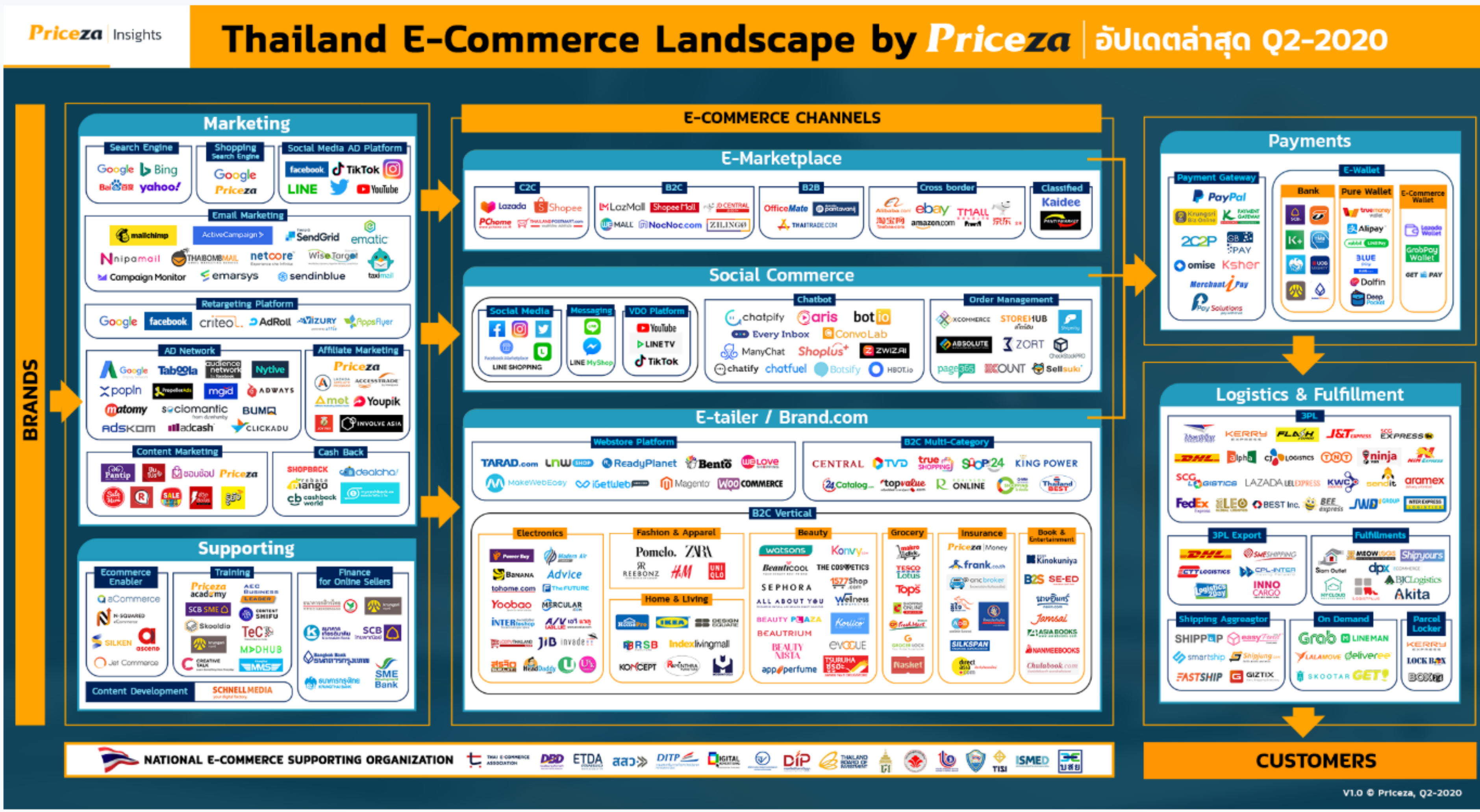
Digital insurance includes life, health and general insurance sold through digital channels (no face-to-face, ATM or phone interaction)

Investment

Digital investment includes retail mutual funds sold through digital channels and wealth management/ advisory services offered through digital channels (no face-to-face, ATM or phone interaction)

Source: Bain, Google and Temasek

Thailand FinTech Landscape



End of lecture