

Thailand's financial sector

Bhanupong

Lecture 23

Chapter 4: Banking sector and adjustment to financial crises

Chapter 5: Stock market and macroeconomy

Mark Twain

“It *isn't* what you don't know that gets you into trouble;
It's what you know *for sure* that just isn't so.”

Course Syllabus

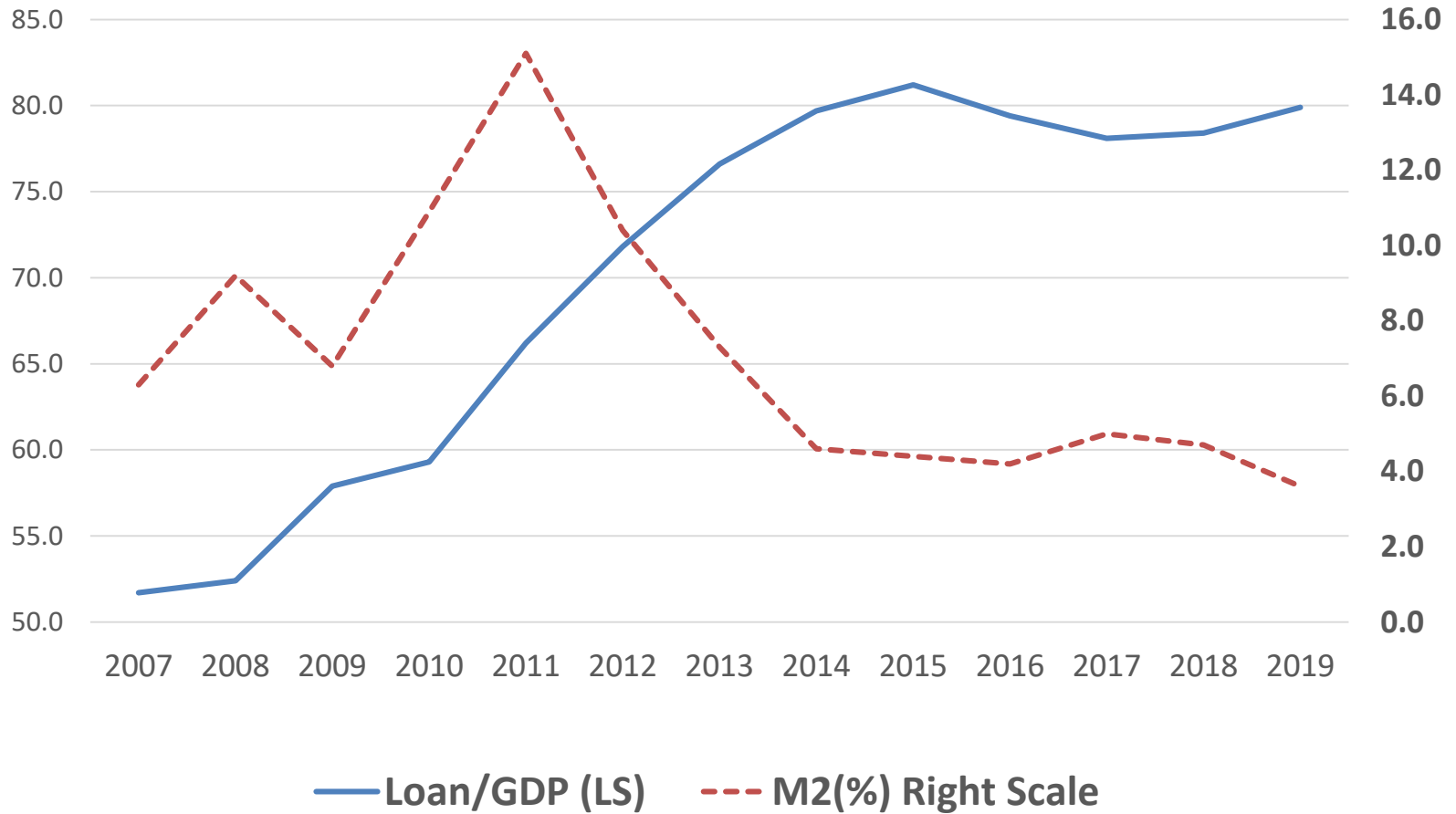
Lecture 23: Financial Sector

- We examine the performance of Thailand's financial institutions. The Thai financial sector emerged from the 1998 crisis, has become stronger and resilient, thanks to foreign capital injection, good governance, and **strengthened financial regulations**.
- What are the consequences of banking **consolidation** and **penetration of foreign banks**?
- What factors are responsible for the **resilience** of Thai banks during the subprime mortgage crisis and the subsequent global recession?

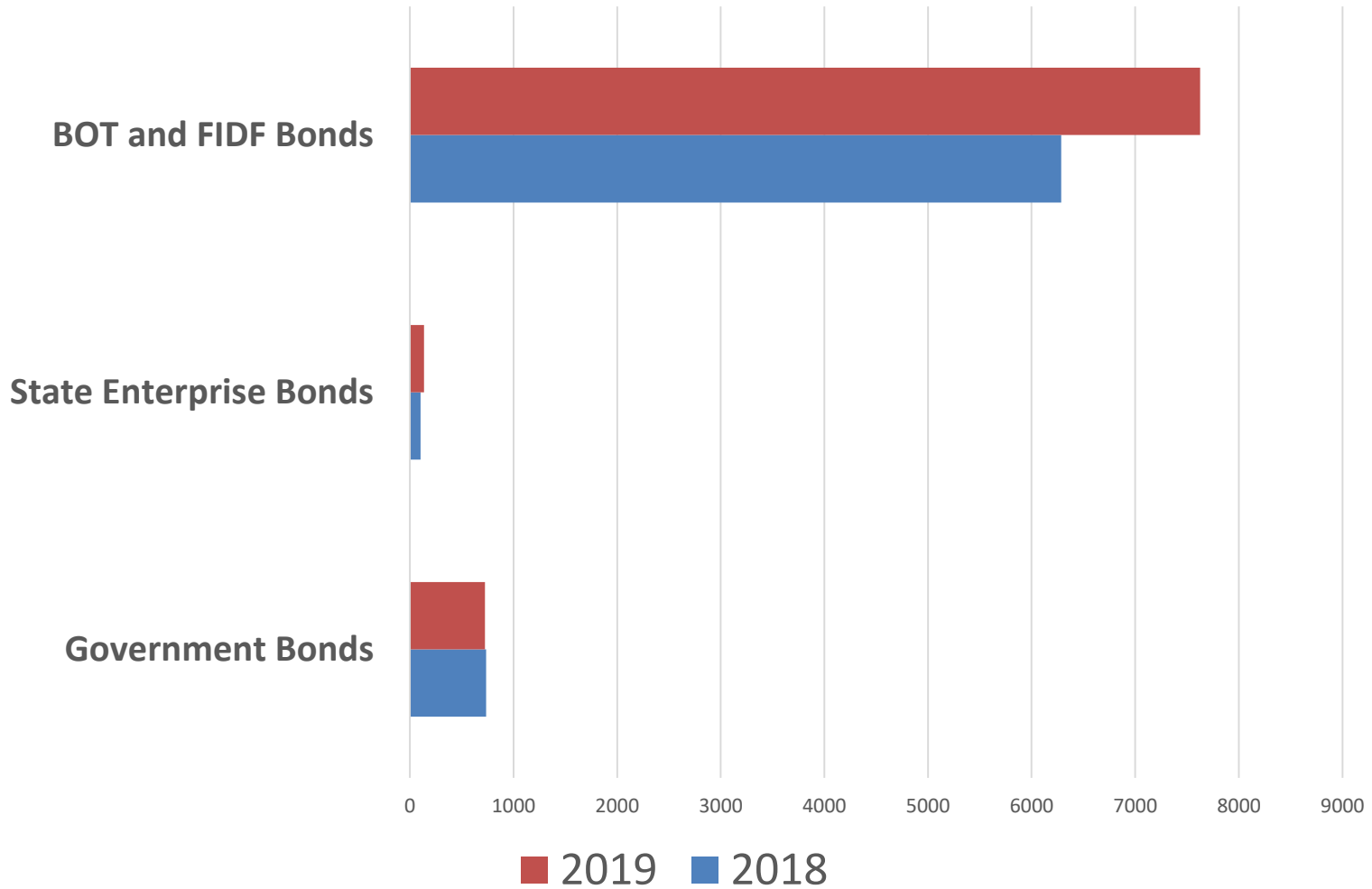
Outline

1. Financial intermediaries
2. Stock market and commercial banks
3. Good and bad bankers
4. Foreign ownership and capital injection
5. Soundness of financial institutions
- 6. Banking status during covid-19*

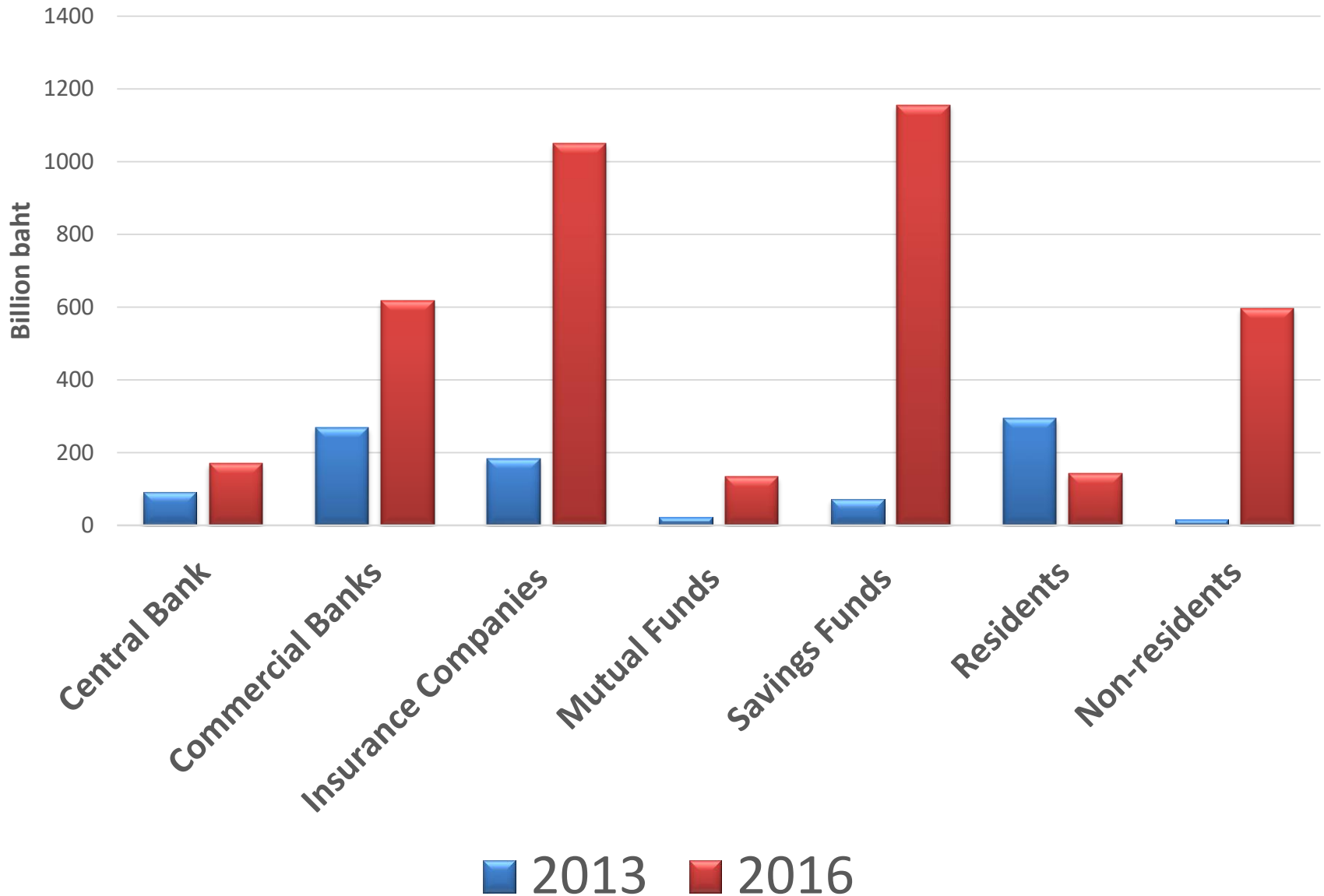
Banks as financial intermediaries



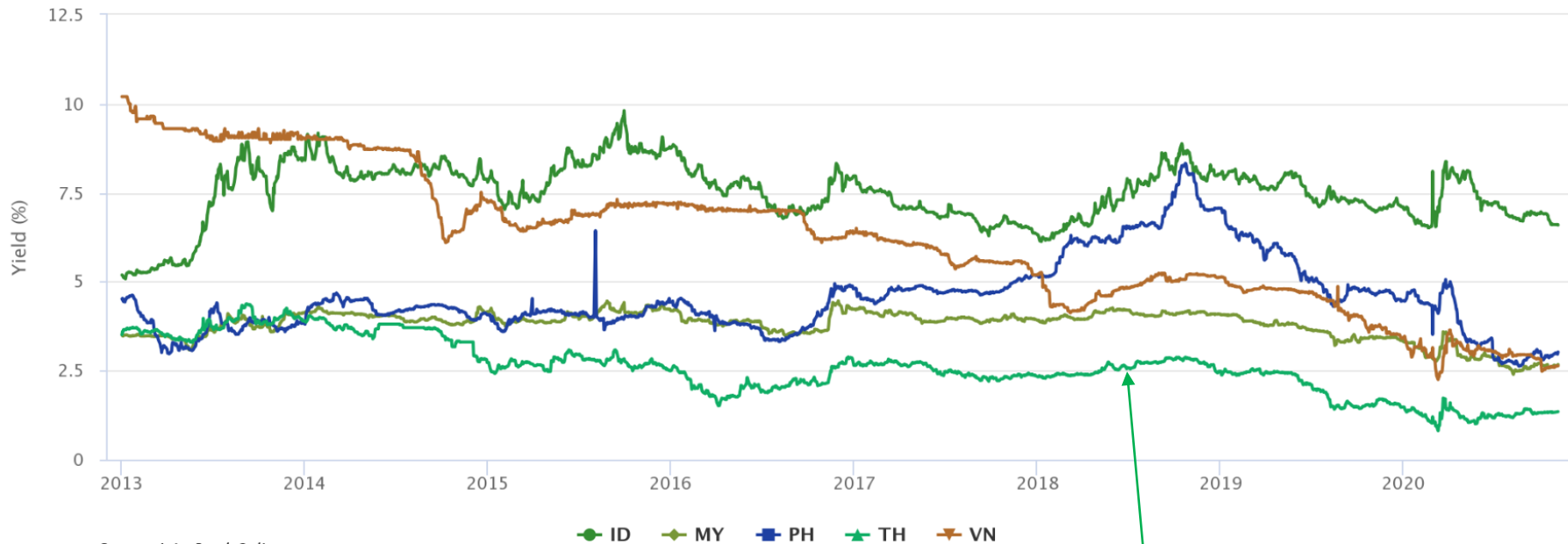
Newly issued public securities (billion baht)



Holder's Profile of Thai government bonds



Ten-year local currency government bonds yields (2013-2020)

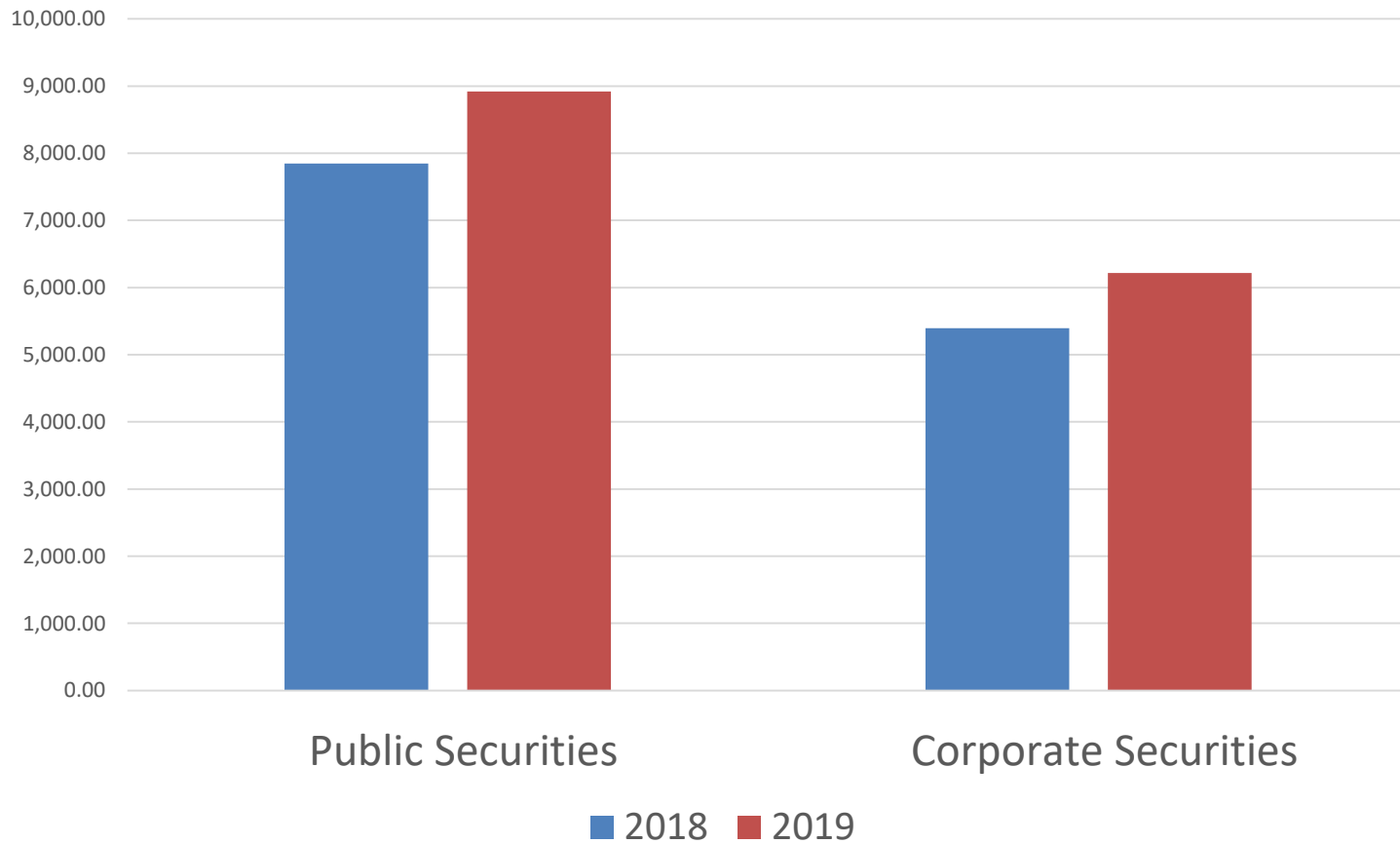


Source: AsianBondsOnline
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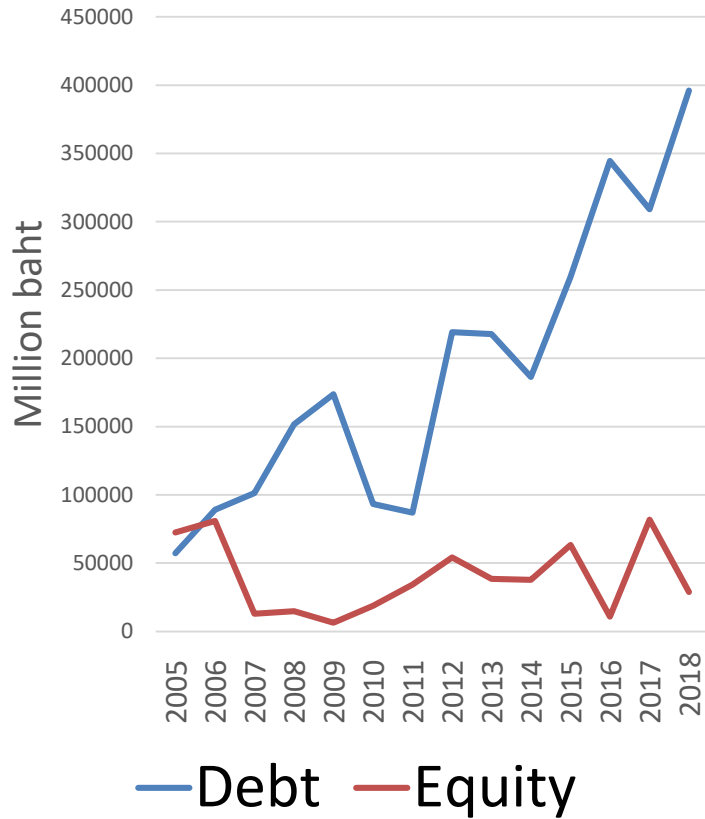
Thailand

Source: Asianbondsonline.adb.org

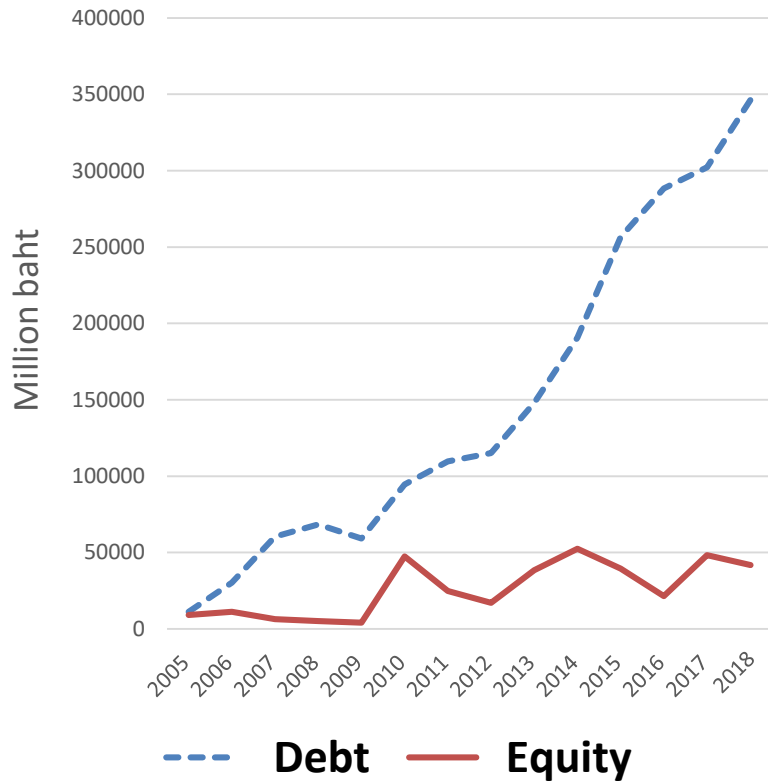
Newly Issues Securities (billion baht)



Manufacturing: New issuances



Real Estates: New issuances



High leverage (Debt-Equity) ratio

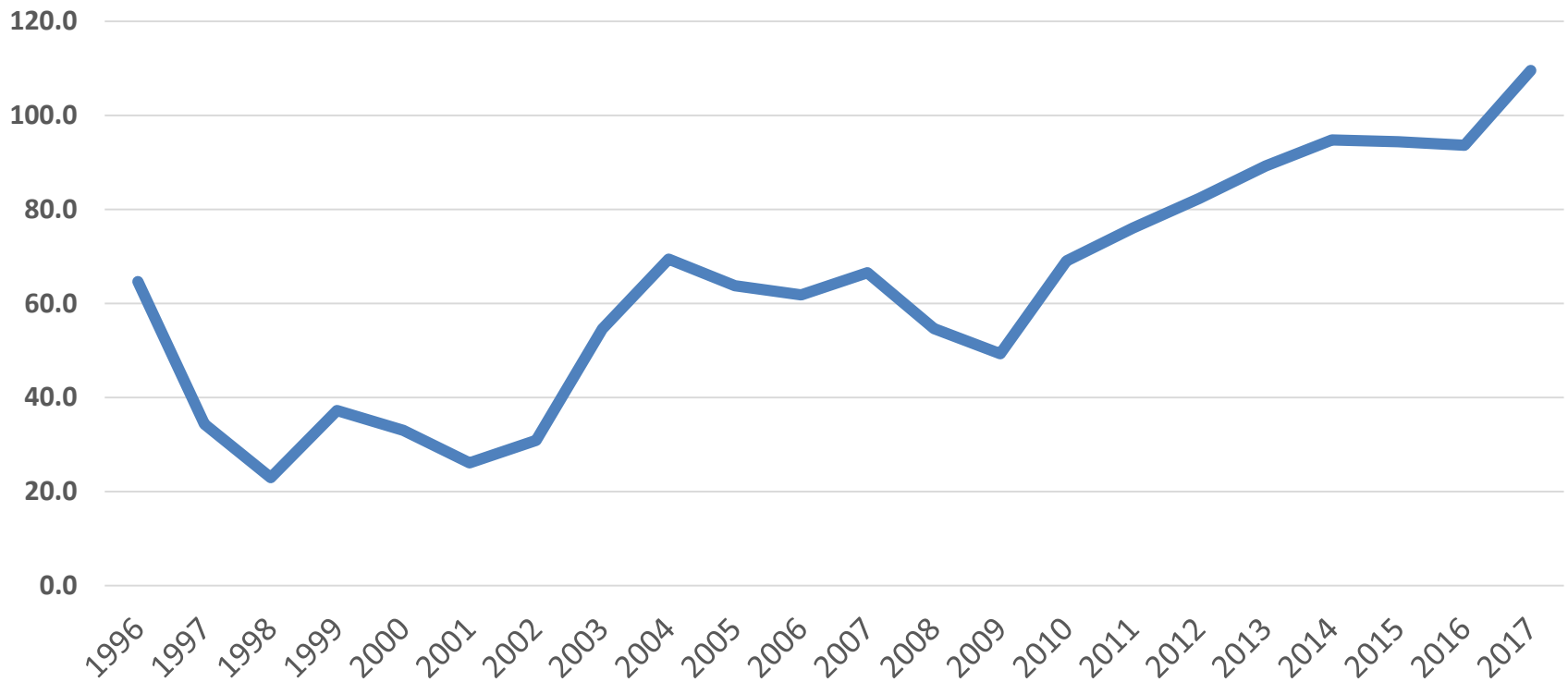


2 ห้องนอน เริ่ม 80 ล้านบาท หนึ่งในทำเลที่ดีที่สุดใจกลางกรุงเทพฯ

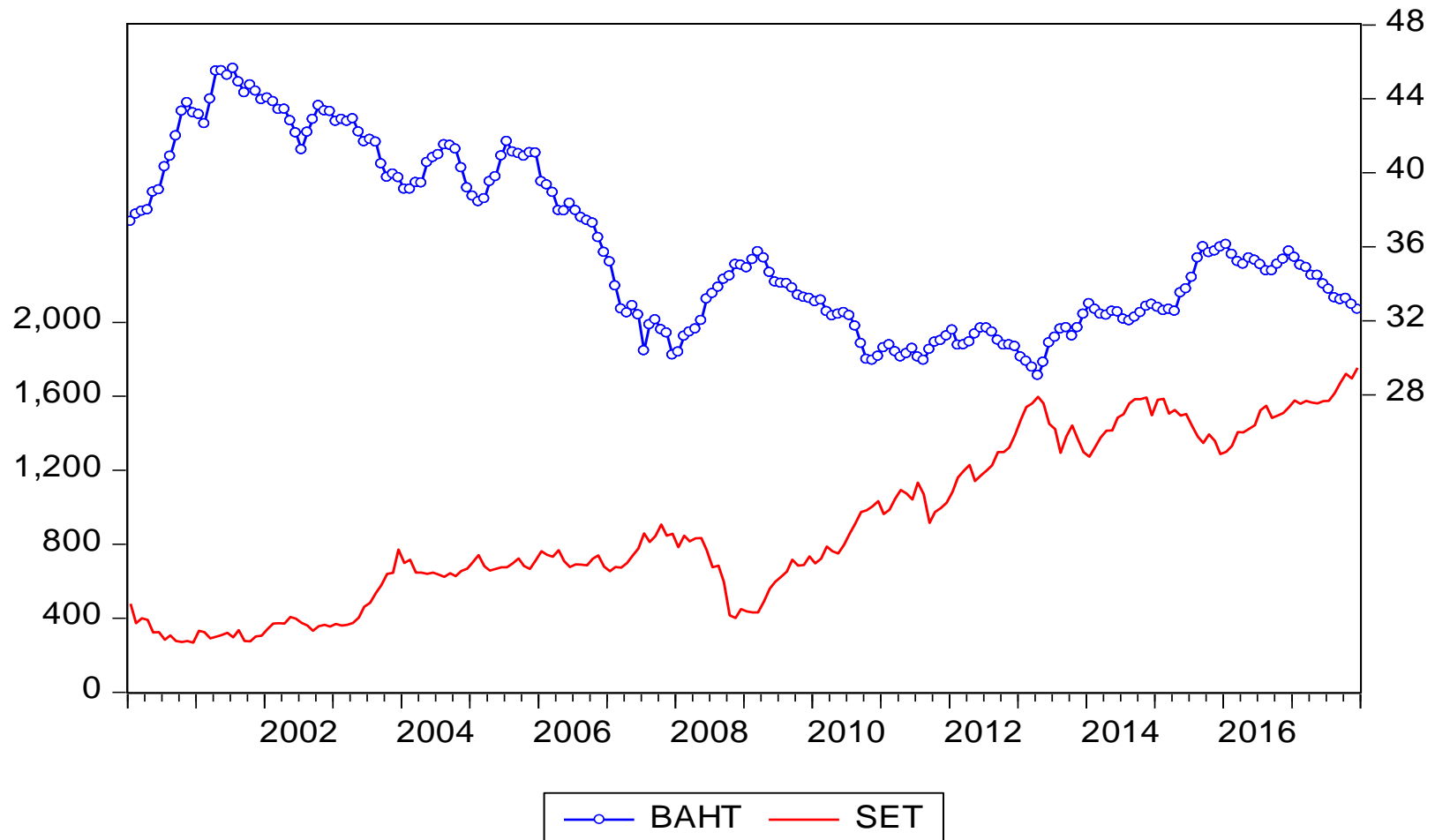


2. The stock market

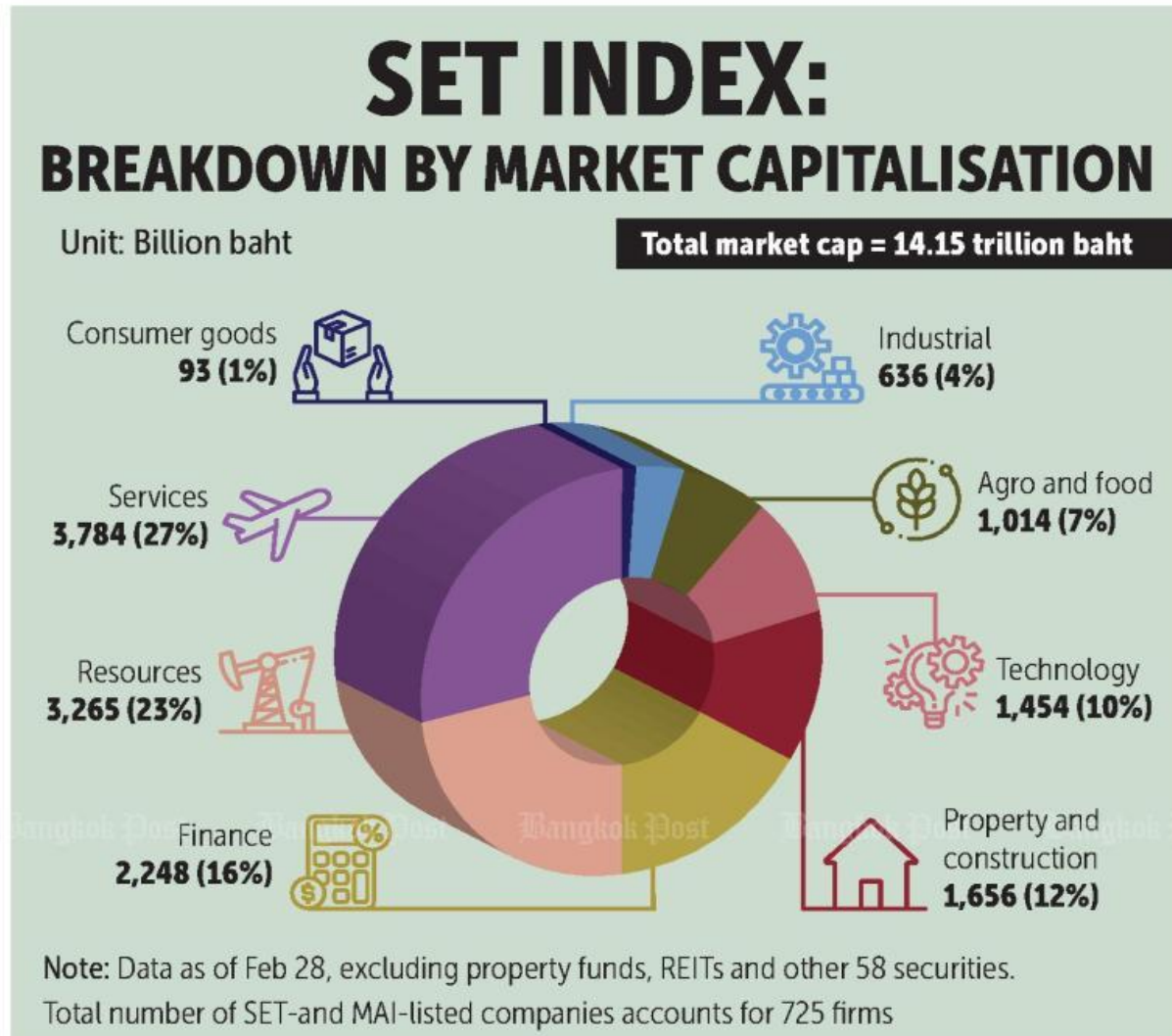
Market Capitalization
(%GDP)



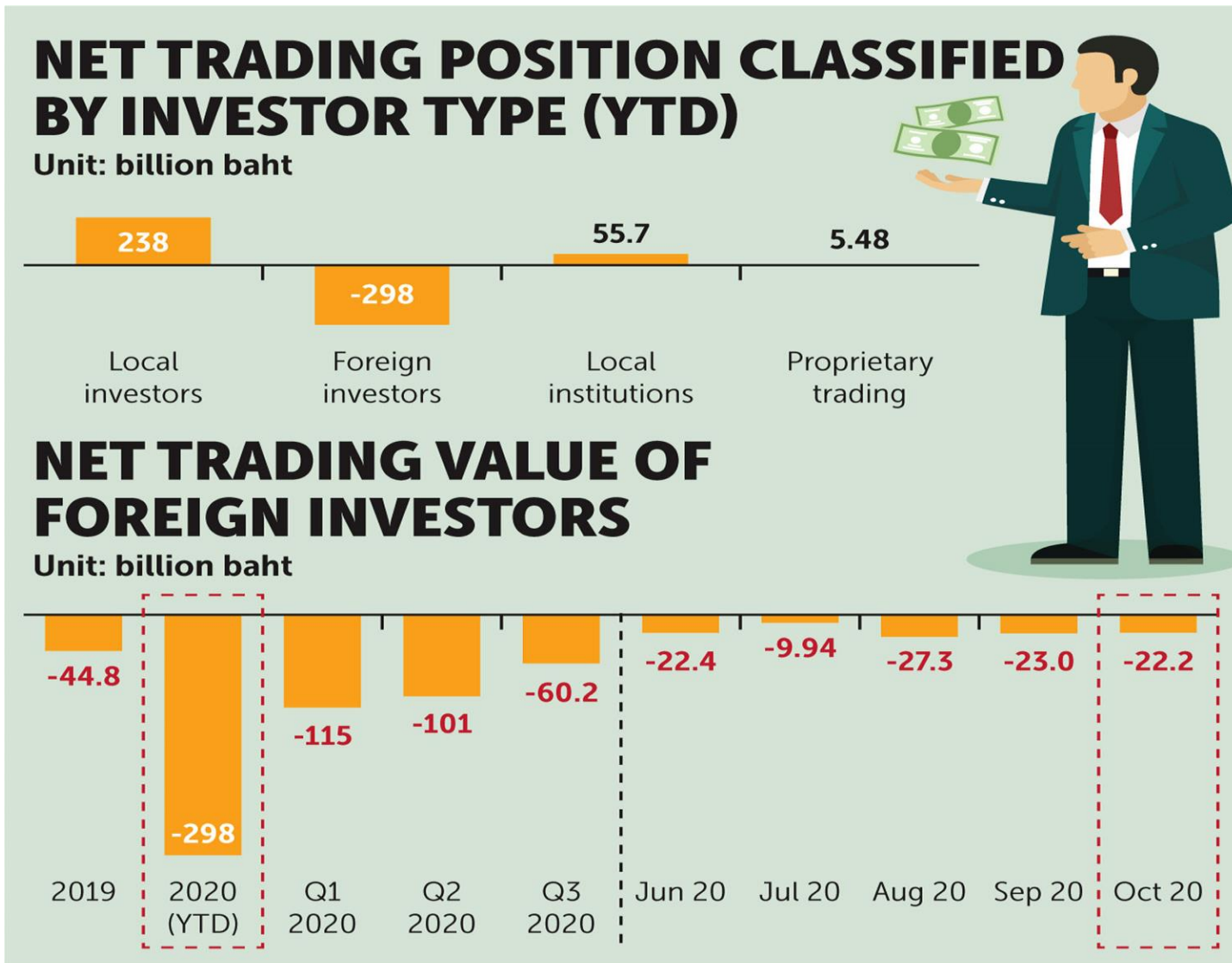
Stock Price Index and the exchange rate (Baht/USD)



Market Cap 14.2 trillion baht: Feb 2020



Investors have moved 298 billion baht out of the Stock Exchange of Thailand since the beginning of the year



October 2020

- The portion of foreign investors on the SET also fell this year to 26-27% from 30% last year.
- Thai bourses are at a disadvantage because of the lack of technology stocks
- Thai listed firms are well diversified, with 48% of revenue coming from overseas.
- The SET's returns year-to-date decreased by 24%, the highest among other markets in the region


Prices decline, trading volume increased

- The SET daily average trading volume for the first 10 months of 2020 was 63.4 billion baht, an increase of 17.9% from the same period last year.
- The consumption sector was the only sector that outperformed from last year on the SET, with returns increasing 11.7%, while the financial sector had the highest returns of 34.4% and the SET index dropped 24.4%.

SET index classified by industry

Data as of Oct 31, 2020; rebased end-2019 = 100

	%YoY			%MTD			%YTD	Weight Mkt. Cap.
	2017	2018	2019	Aug '20	Sep '20	Oct '20	Oct '20	Oct '20
SET	13.7	-10.8	1.0	-1.3	-5.6	-3.4	-24.4	100%
SET50	17.7	-7.9	2.3	-2.2	-7.5	-4.5	-30.2	65%
Consumption	-5.1	-24.5	-13.5	-9.4	6.8	10.8	11.7	2%
Agriculture & food	-1.9	-22.4	13.0	0.8	-5.5	-3.3	-6.1	8%
Technology	7.5	-14.8	10.2	-0.9	-1.4	2.0	-6.2	12%
Industrial	28.7	-13.9	-22.8	-1.1	-7.1	-0.4	-20.8	6%
Service	19.7	-8.7	3.5	1.1	-3.6	-7.6	-25.0	21%
Property	6.6	-13.2	-5.4	-2.3	-7.7	-5.2	-28.2	13%
Resources	19.6	-6.3	8.9	-5.6	-9.3	-3.9	-29.4	26%
Financial	11.5	-9.2	-7.4	1.6	-5.3	0.9	34.4	13%

 %YTD Adjustment higher than SET

 %YTD Adjustment positive

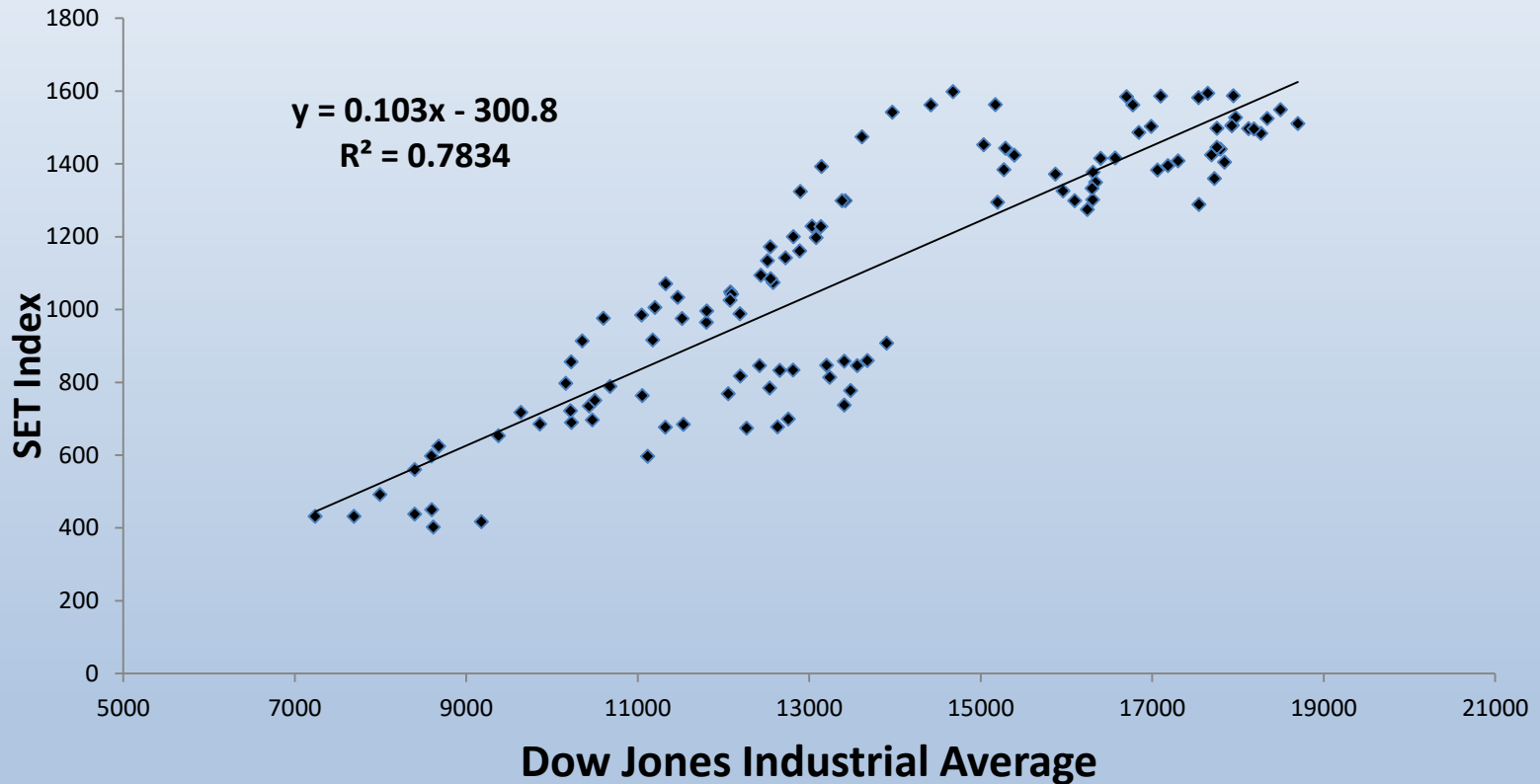
Source: SETSMART

BANGKOK POST GRAPHICS

SET vs. Dow Jones

2007-2016

Source: Bank of Thailand and Federal Reserve Board



Are there any lurking variables?

Equity Indexes



Source: Asianbonds online
1 Jan 2013=100

Market Sentiment and stock prices

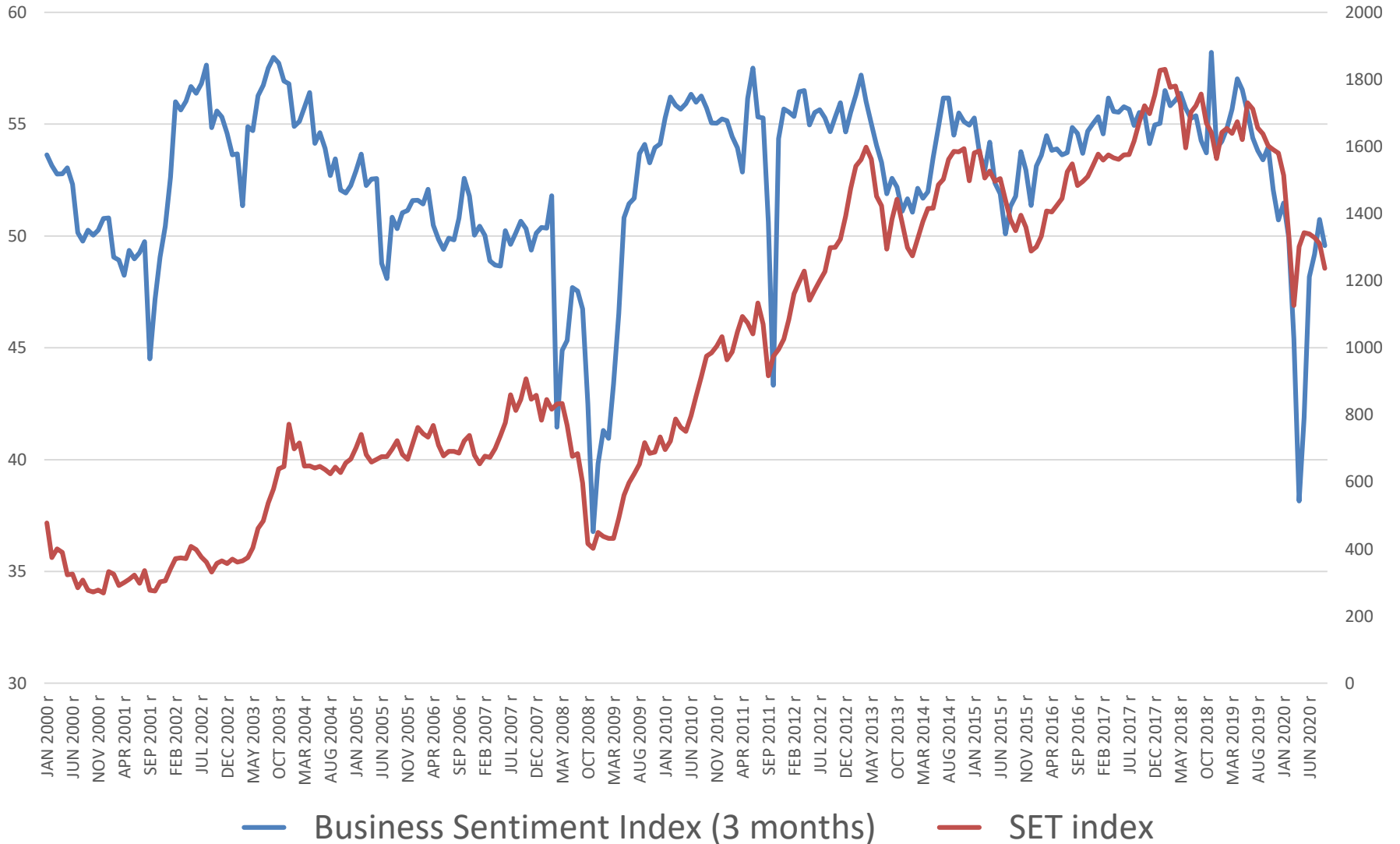
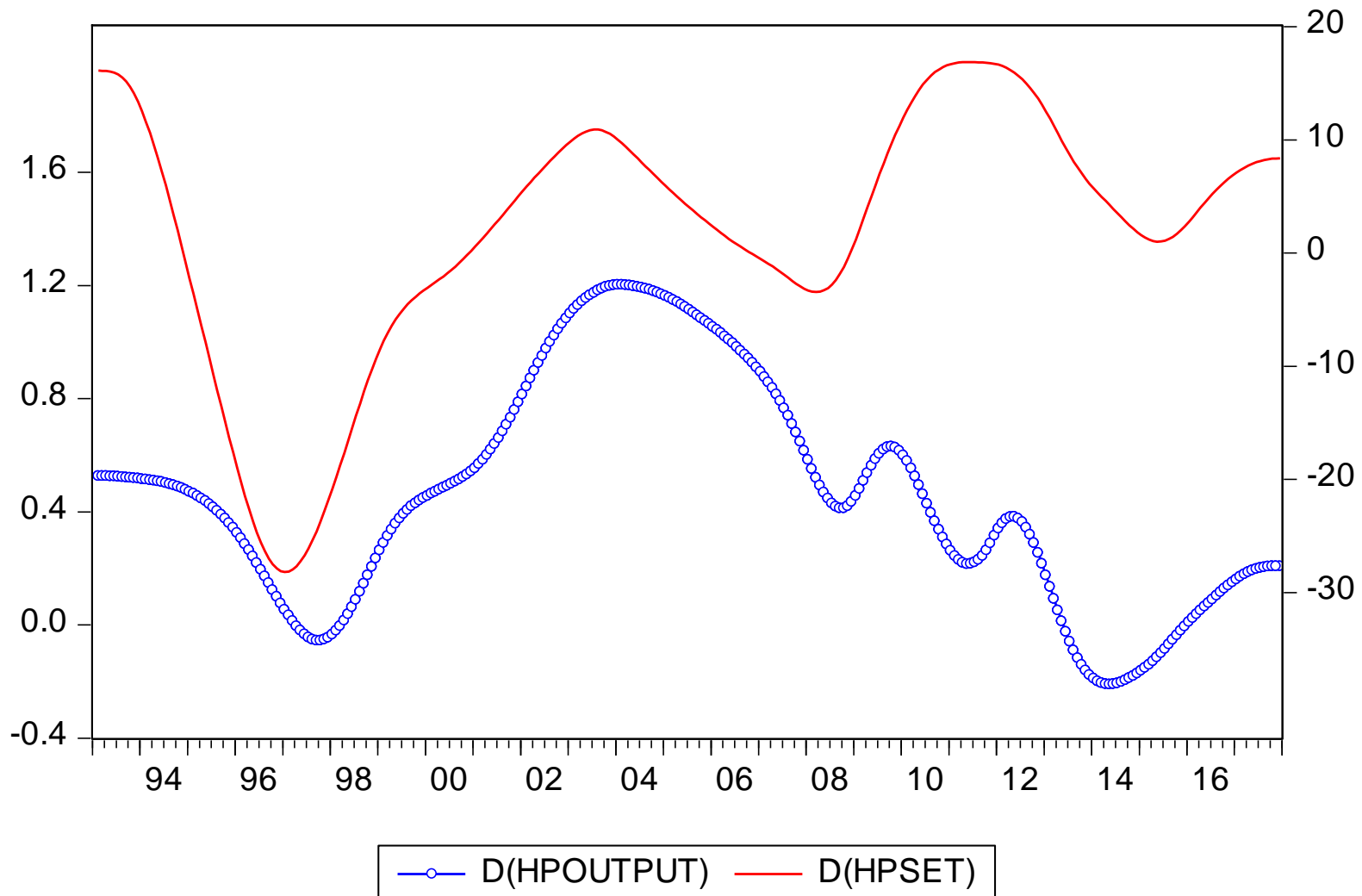


Figure 5.5 **Changes** in stock prices and manufacturing production index (cyclically adjusted)



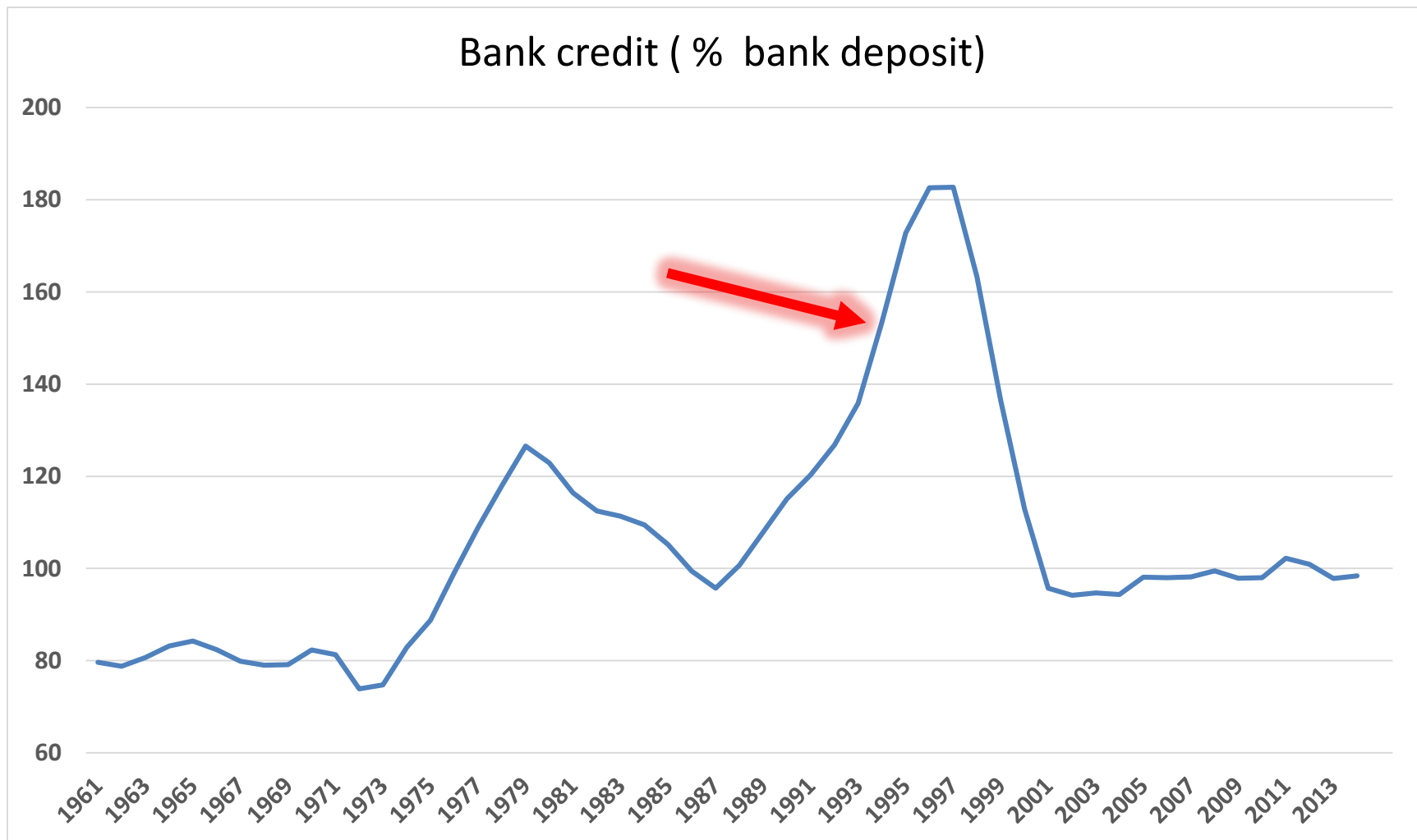
Dichotomy no more:

Real and financial sectors are inseparable sectors

- In the **classical world**, the real economy is separated from the financial sector in the sense that the money supply does not affect the real sector.
- The only function of the money supply is to determine the price level but has no impact on output and employment.
- A dichotomy between the real and monetary sectors exists in the classical world, where prices and wages are flexible. In the Keynesian world, the two sectors are connected via ***the interest rate***.
- The empirical evidence provided in this chapter indicates that there is also ***another channel***, indicating that the real and monetary sectors are inseparable.
- ***The stock market*** is another channel that links the ***financial sector and the real sector***.

Financial Instability Hypothesis

Hyman Minsky



3. Good and bad bankers

- Macroeconomic conditions, industry and financial policy, and debtor/credit behaviors.
- The better-managed banks succeed in remaining solvent during difficult times.
- The **quality of management** is an essential difference between sound and unsound banks.
- Mismanagement commonly occur in **the absence of effective regulation and supervision:**
- Good bankers become bad ones in *four stages*

(1) Technical mismanagement

- Inadequate credit analysis (credit officers)
- Political pressures
- Excessive ***risk concentration***
(The Single Lending Limit regulation may correct the concentration problem)
- ***Insider Lending***
- ***Mismatching*** assets and liabilities regarding currencies, interest rates, or maturities

(2) Cosmetic management (Hiding past and current losses)

- Bankers may keep **dividends** constant despite poor earnings.
- Retain smaller share of income **for provisions against loan loss**, thereby sacrificing capital adequacy.
- Resort to increase net **profits on paper** (even if the bank must pay more taxes)
- Classify **bad loans as good assets** to avoid making loss provisions.
- **Recording** future income now and postpone recording current expenditure (the so-called **creative accounting**).

(3) Desperate management

- When losses are too significant to be concealed by accounting gimmicks, the bad bankers start:
- Lending to risky projects at higher loan rates
- Speculating in stocks and real estate markets
- However, the higher risk may lead **to further losses and cash flow problem.**
- *Offering high deposit rates* to attract new deposits to avoid a liquidity crisis.
- The higher cost of funds eventually **compounds** the problems.

(4) Fraud

- Fraudulent behavior maybe rare and sometimes causes initial losses, but once severe liquidity crunch appears inevitable, fraud becomes common.
- As the end approaches, **bankers grant themselves loans** that they are unlikely to repay.
- “Swinging ownership” of companies partly owned by banks or bankers.
- If a company belongs to the bank is **profitable**, the evil banker will arrange to buy it from the bank at a **low** price.
- If the company the **banker own** is **unprofitable**, the bad banker will sell it to the bank at a high price.
- In essence, the bad banker just robbed the bank.

Bangkok Bank of Commerce (BBC)

Former BBC (Bangkok Bank of Commerce) boss was jailed for 155 years for fraudulent behaviors.

There used to be **Metropolitan Bank, First City Bank** in the 1970s, but they were long gone.

More recently, we have learned about ***Panama Papers***, which were the results of journalist investigations on offshore companies set up by Mossack Fonseca, a law firm in Panama (Check the movie “Laundromat”)

Vulnerable and resilient

- The Thai financial sector was vulnerable and weak in the late 1990s.
- The lack of *prudential regulations* and sufficient capital funds made capital control relaxation in the early 1990s premature liberalization.
- The ensuing fast and large capital inflows led to subsequent financial turmoil.

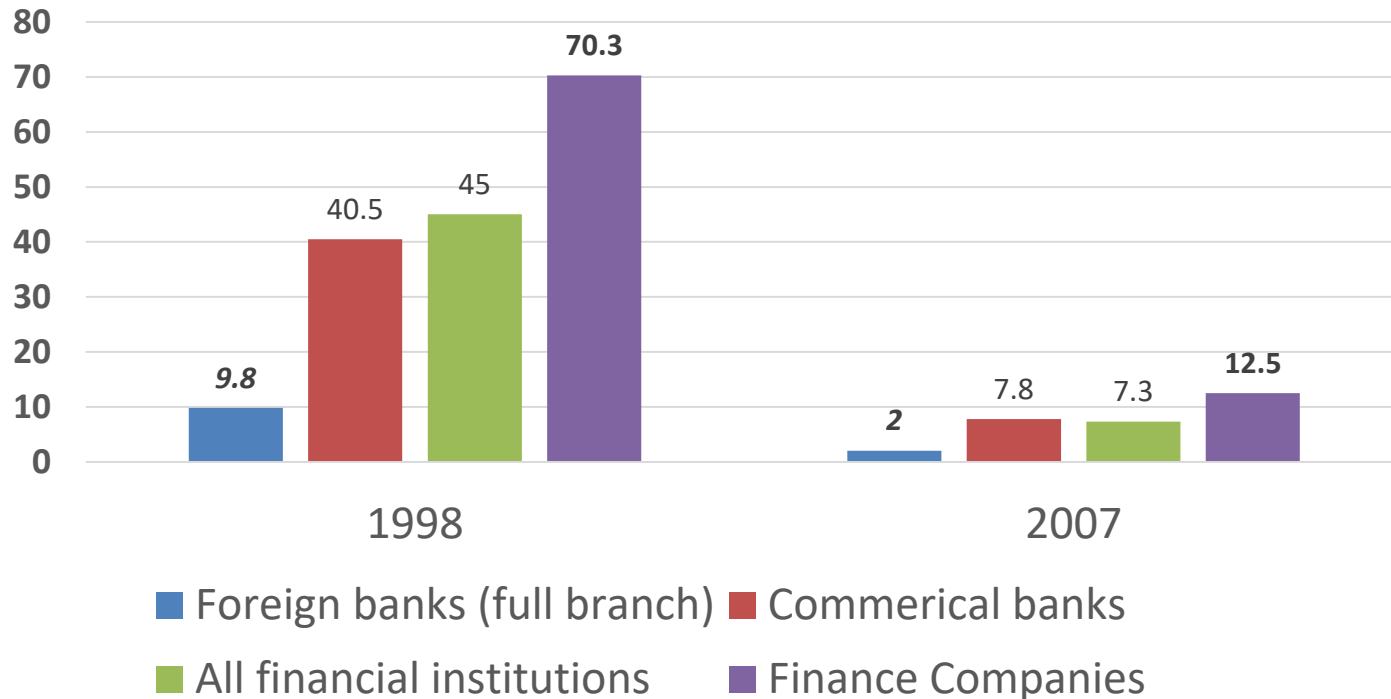
Benefits and costs of opening up

- Since the 1997 financial crisis, the Thai economy has tightly integrated into the world economy through international trade and capital flows.
- As such, it cannot completely shield itself from external shocks.
- The Thai financial sector has emerged from the 1998 crisis and become stronger and more resilient, thanks to foreign capital injection, good governance, strengthened financial rules, and *economic recovery*.
- By opening up the financial sector to foreign participation, the financial sector has become more efficient, taking the benefit from competition effect and technology adaptation.

Stronger and more resilient

The strong performance of the corporate sector enabled banks to reduce Non-Performing Loans (NPL) further.

NPLs: Ten years after the AFC



Banks before the GFC

- The Bank of Thailand established prudential rules and regulations before the eruption of the GFC in 2008.
- With low exposure to export sector, commercial banks invested little in collateral debt obligations (CDOs) backed by the US subprime loans.
- Thai banks has remained healthy and did not suffer from the GFC.
- *Thai banks, large and small, have received foreign capital injections.*

Thai Financial Sector and the GFC

- The global financial crisis during 2007–2009 led to the export collapse and output contraction in 2009.
- The debacle of the world's financial institutions and stock market crashes in 2008 had *a negative impact on the Thai stock market*.
- ***The rapid economic recovery***, despite the political turmoil in 2010, provided opportunities for banks to ***expand credit and enjoy the benefits from rising interest rates***.

ABSTRACT

The Global Financial Crisis and Resilience of the Thai Banking Sector

BHANUPONG NIDHIPRABHA

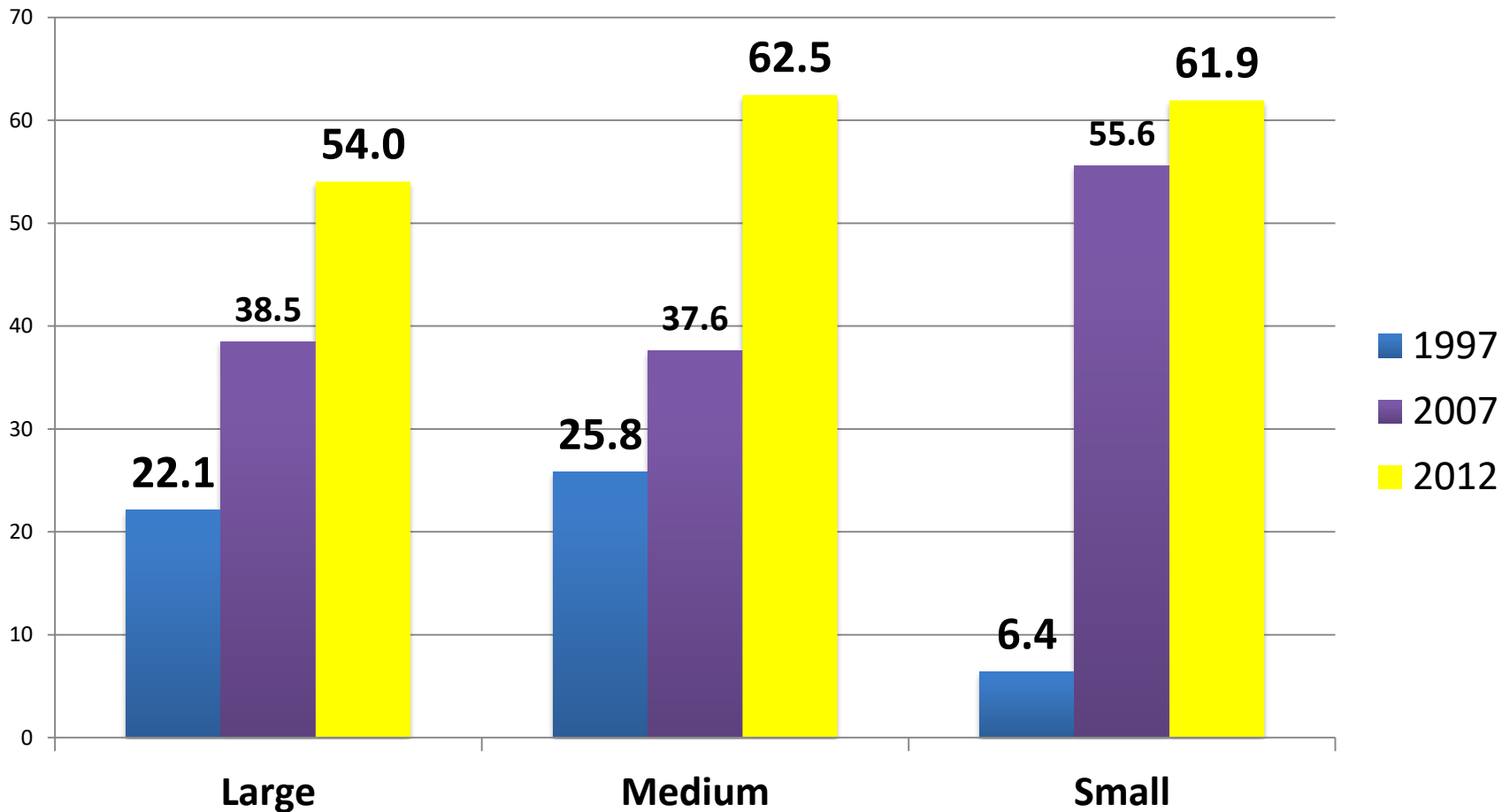
The Thai economy is vulnerable to external shocks because of its high exposure to trade and capital flows. Despite its adverse consequences on the real sector of the Thai economy in 2009, the global financial crisis had little impact on the Thai financial sector. The healthy performance and resilience of Thai financial institutions can be attributed to the financial reforms undertaken after the Asian financial crisis and the favorable macroeconomic environment.

JEL classification: G01, G21, G28

4. Foreign ownership and capital injection

- Financial institutions and their regulators cannot resist the global trend of foreign penetration.
- By opening up the financial sector to foreign participation, the financial sector has become more efficient, benefiting from competition and technology adaptation.

Foreign ownership in Thai banks (% total equity)



Benefits from globalization (foreign penetration)

- Financial restructuring would be impossible without allowing foreign banks to acquire shares of less efficient private and public-owned financial institutions.
- With foreign capital injection, monetary authorities can maintain **system solvency** while lessening the burden of financial bailouts, although the enormous burden from FIDF's bailouts are still looming large until today.
- Financial Institutions Development Fund (**FIDF**), an arm of the BoT for dealing with defunct financial institutions.

Defunct Banks

- Bank of Asia
- Bangkok Bank of Commerce
- Bangkok Metropolitan Bank
- DBS Thai Dhanu Bank
- First Bangkok City Bank
- Laem Thong Bank
- Nakhonthon Bank
- Siam City Bank

UOB



- Radanasin

**Nakorn
Thon**



- Standard
Chartered

CIMB



- BankThai

Are we well prepared for the next banking crisis?

- The exploitation of **economies of scale and scope** improved efficiency in their operation.
- All of these factors are the result of financial reforms undertaken after experiencing the financial crisis in 1997.
- Thai banks have been well prepared for the global financial crisis as they have learned a valuable lesson on ***being conservative*** and ***observing stringent prudential rules*** and regulations.

Too big to fail: A syndrome

- Too big to fail is when a bank that is so essential to the economy, whose failure would be catastrophic.
- “Big” doesn't refer to the size of the bank.
- Instead, it means it's so **interconnected** with the rest of the economy that its failure would be a big event.

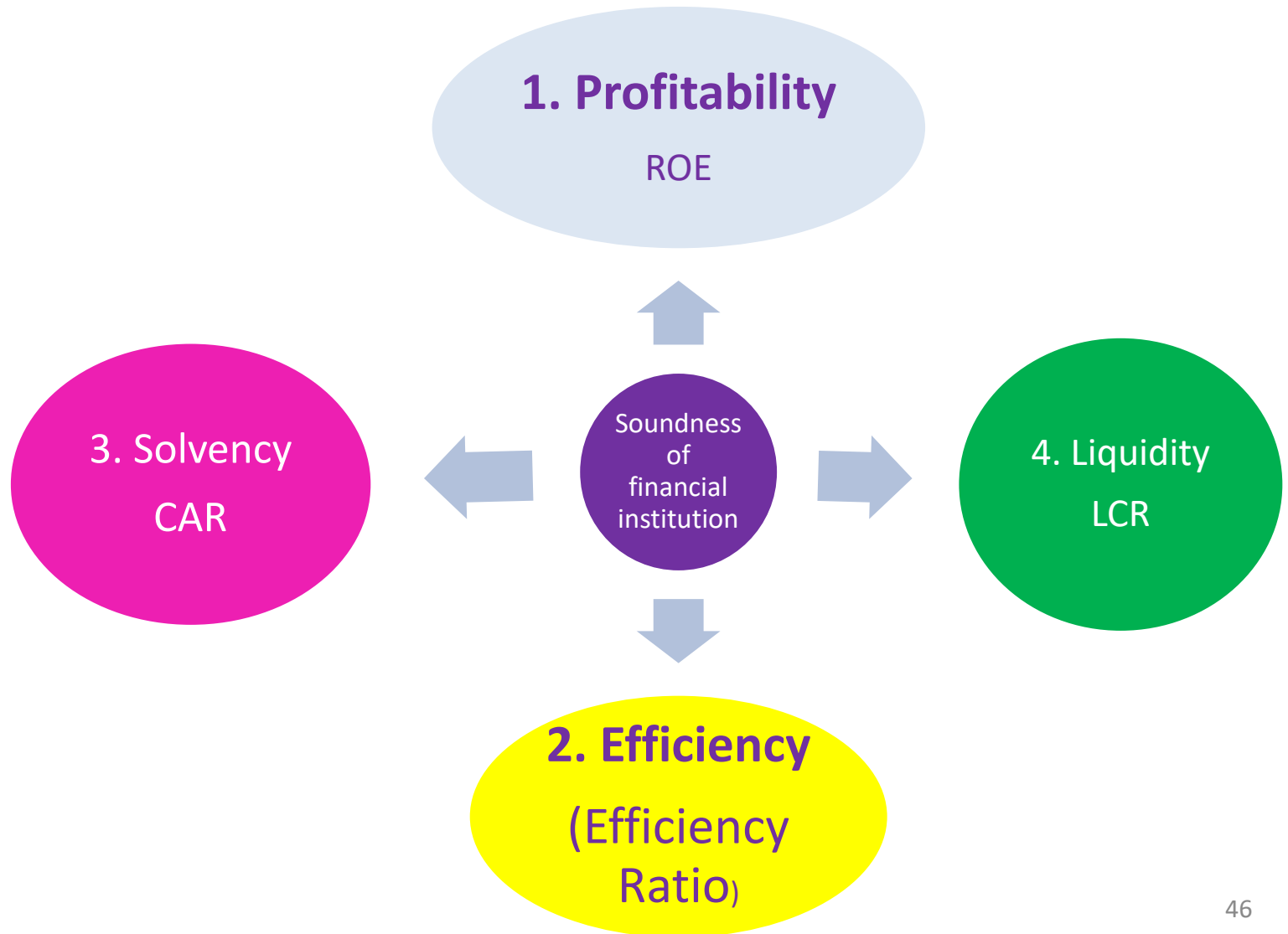
What should the central bank do?

- In the future, there would always be some banks that fail because of *the vulnerable nature of financial firms*; the monetary authorities must distance themselves from the too-big-to-fail syndrome.
- *Moral hazard* arises as the central bank is the lender of last resort, always standby to provide liquidity when things go wrong.
- It takes time for depositors to learn to protect themselves and realize that **deposit insurance** program does not prevent them from any losses caused by future failure of financial institutions.

5. **Soundness** of financial institutions **four** measurements

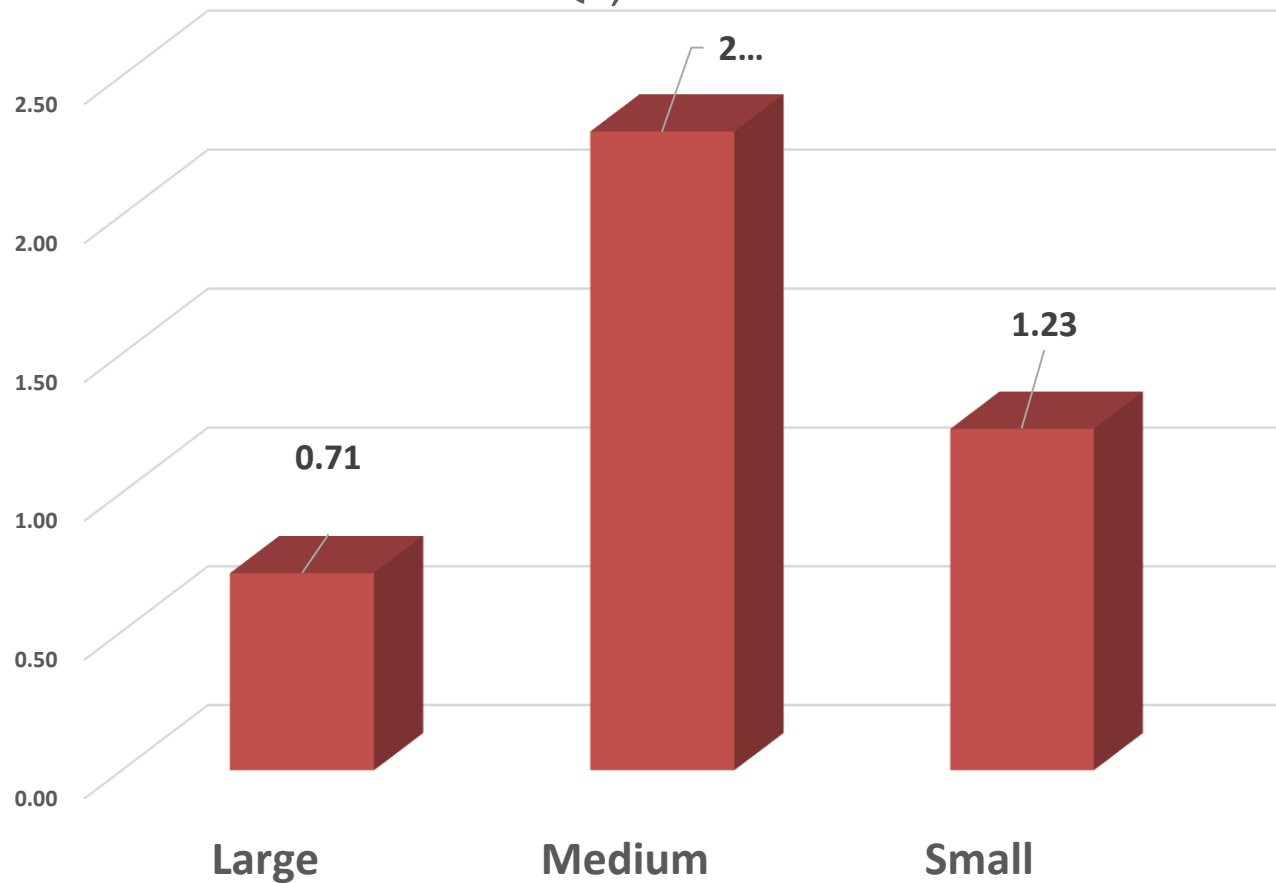
- (1) **Profitability** (ROE, ROA) depends on, among others, *interest margins, NPLs, and loan growth rate*.
- (2) **Liquidity** (Liquid assets to short-term liabilities)
- (3) **Solvency** (Capital Adequacy Ratio: CAR)
- (4) **Efficiency** (Efficiency ratio)

Soundness of financial institutions



1. Profitability

Net profit /Average net assets (Per year) (ROA)
Q2, 2020



Return on Assets (ROA) and Return on Equity (ROE)
are measurements of profitability

$$ROE = \frac{\textit{profit}}{\textit{Equity}} = \frac{\textit{profit / Assets}}{\textit{Equity / Assets}}$$

$$ROE = \frac{\text{Return to Assets}}{\textit{Capital / Assets}}$$

$$ROE = \frac{ROA}{\textit{Capital / Assets}}$$

Determinants of bank profitability

- Banks receive interest and non-interest incomes, the latter must be raised to offset interest income decline during the economic slump.
- The major components of bank cost are **interests** from deposits and bank borrowings, plus *operating costs, loan-loss provision and bad debt write-off*.
- Banks exploit ***economies of scale and scope*** to ***reduce the cost*** of providing services.

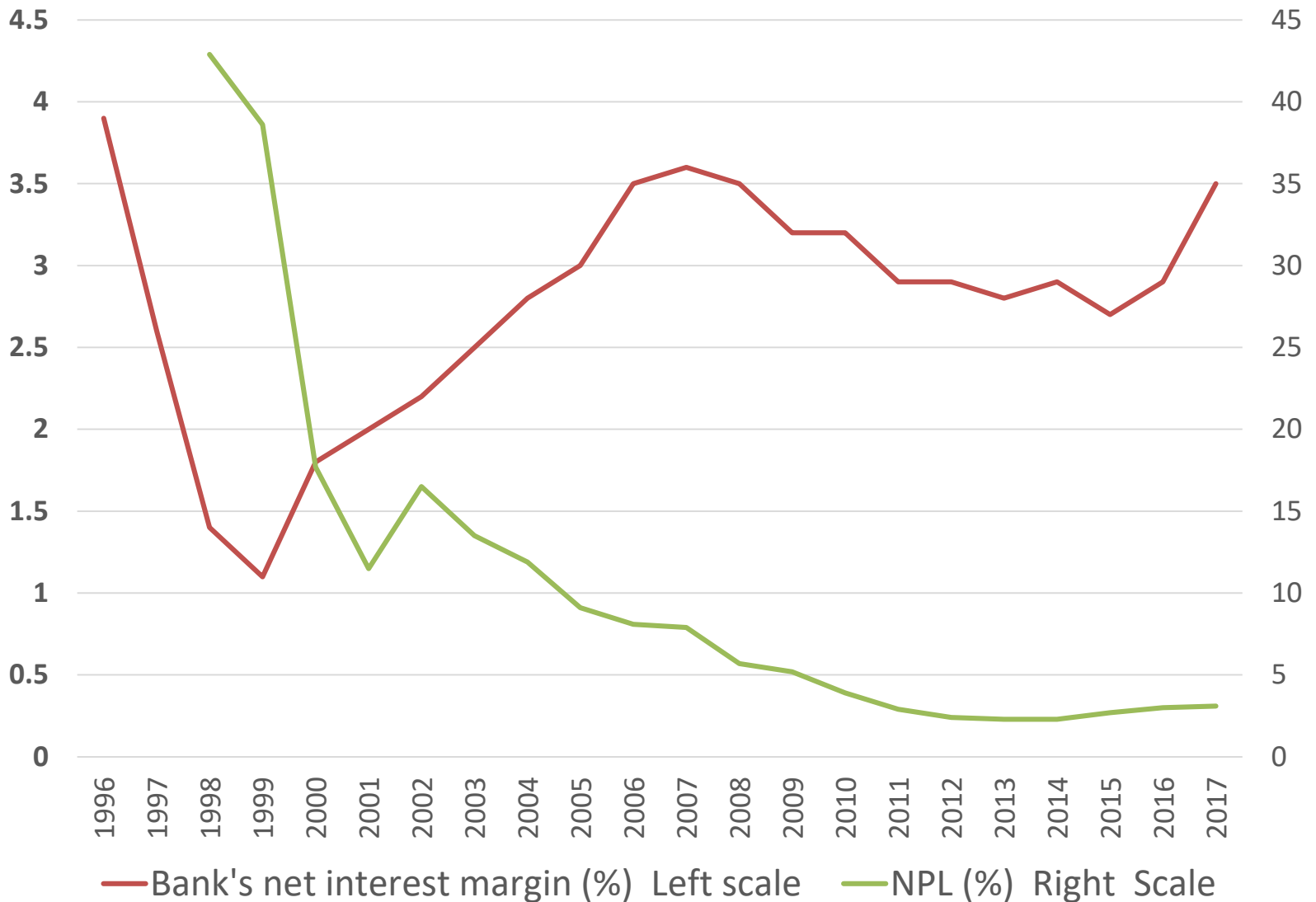
Interest gap ($r_L - r_D$)

- Interest rate spread is the interest rate charged by banks on loans to private sector customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits.
- The terms and conditions attached to these rates differ by country, however, limiting their comparability.

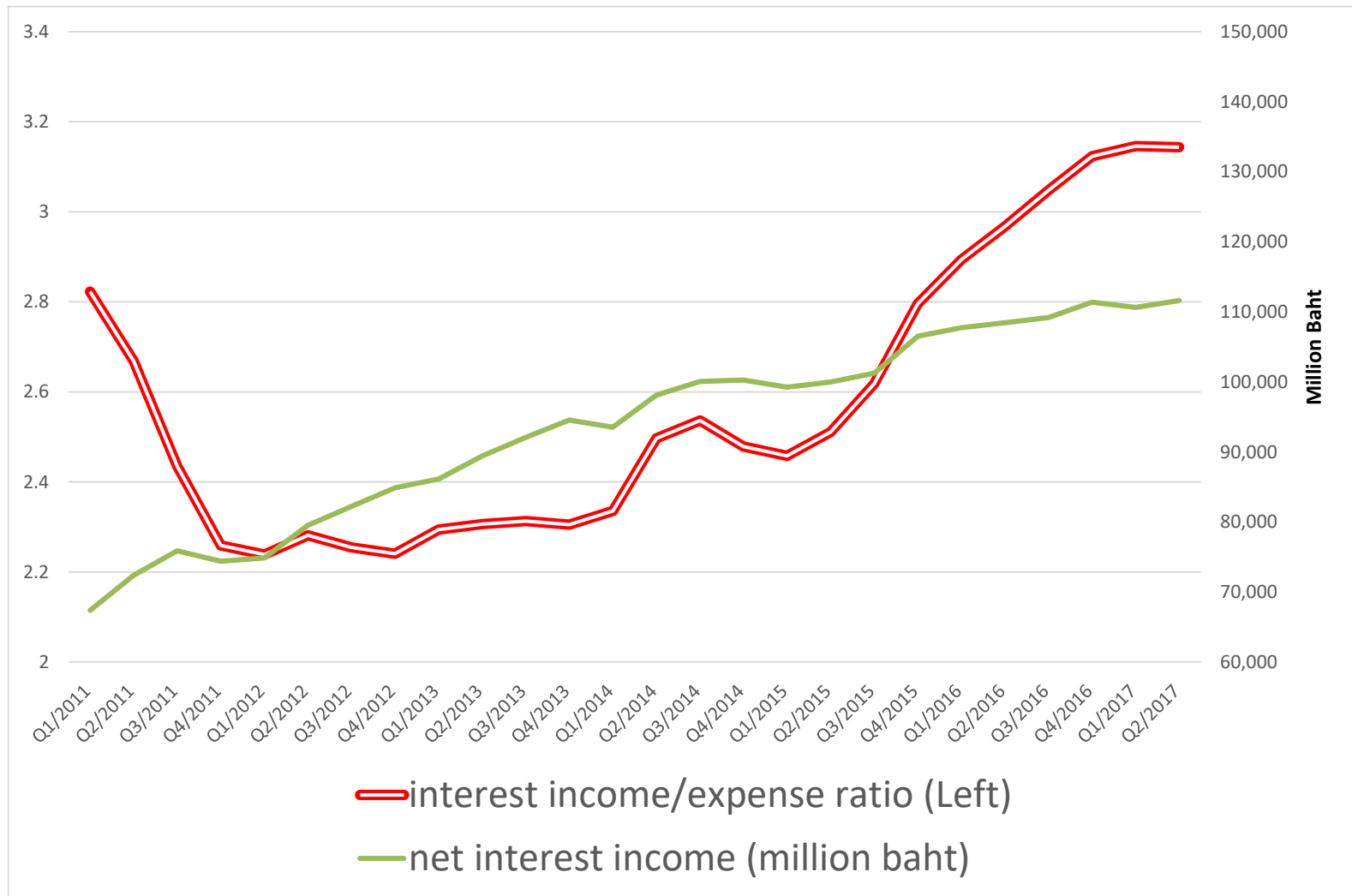
A measurement of profitability

- The **large interest margin** between lending and deposit rates bodes well for the **monopoly rent** of commercial banks.
- The transfer of wealth from consumers to banks can be reduced by **allowing foreign entry** in line with liberalization of the services sector.
- Even if the interest spread remain constant, bank profit can soar if **lending volume** expands rapidly.

Interest margin and NPL (%)

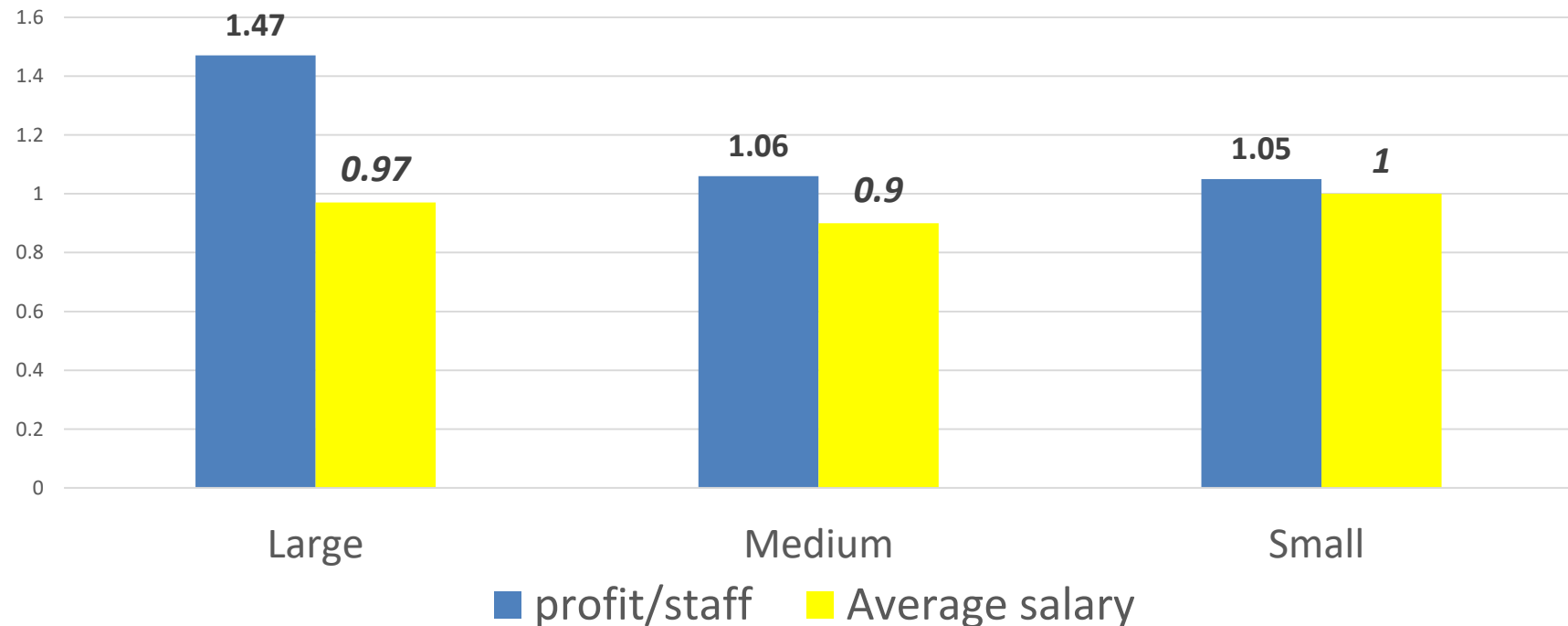


Interest income rises steadily despite the slowdown of loan growth, thanks to **widening interest gap**.

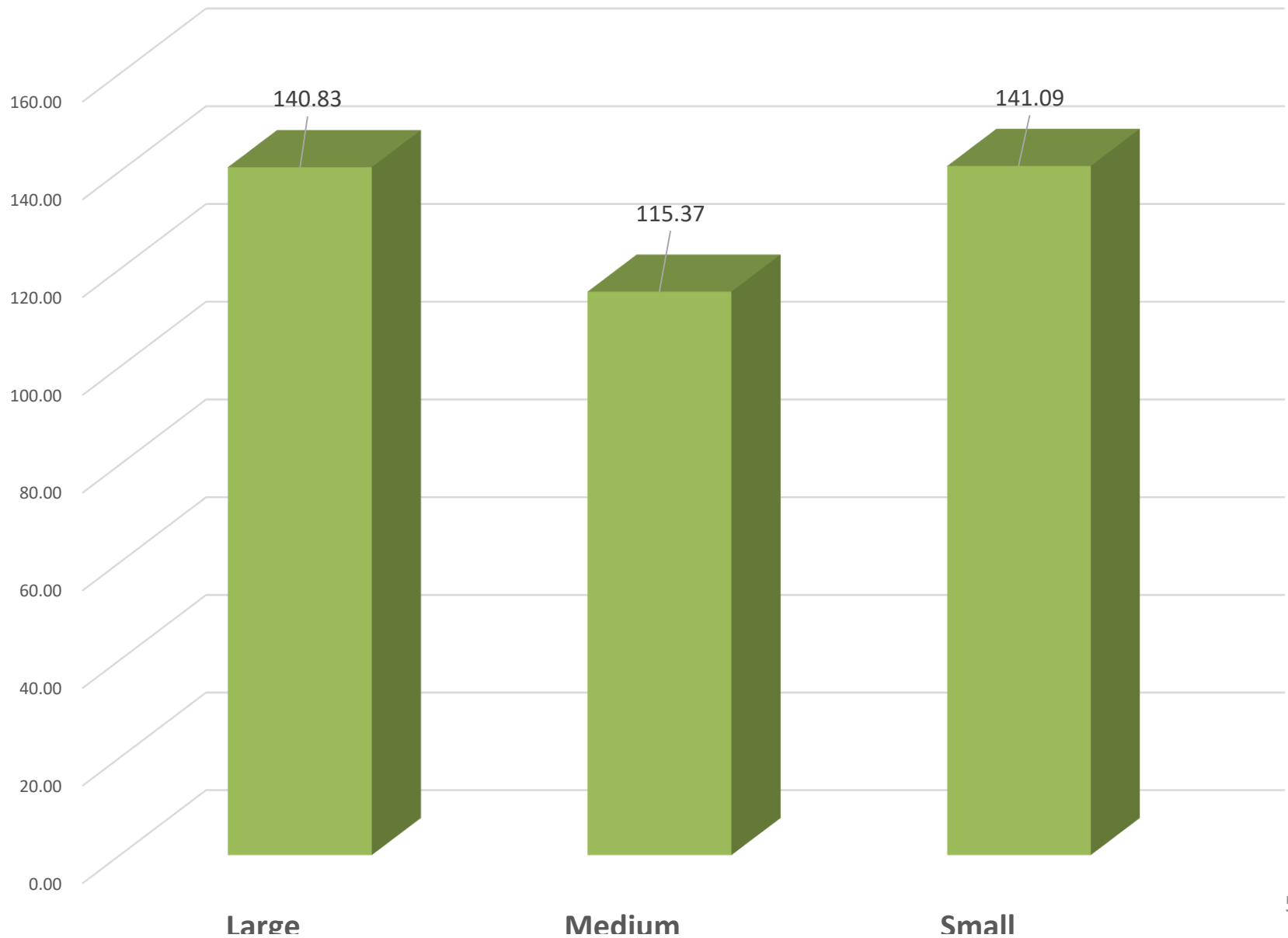


2. Efficiency

4 Large banks: Share of total assets >10%
3 Medium banks: 3% < Share <10%
7 Small banks: Share < 3%



Average net assets/Number of bank's employee 2Q 2020



3. Solvency

Quality of Bank Assets and NPLs

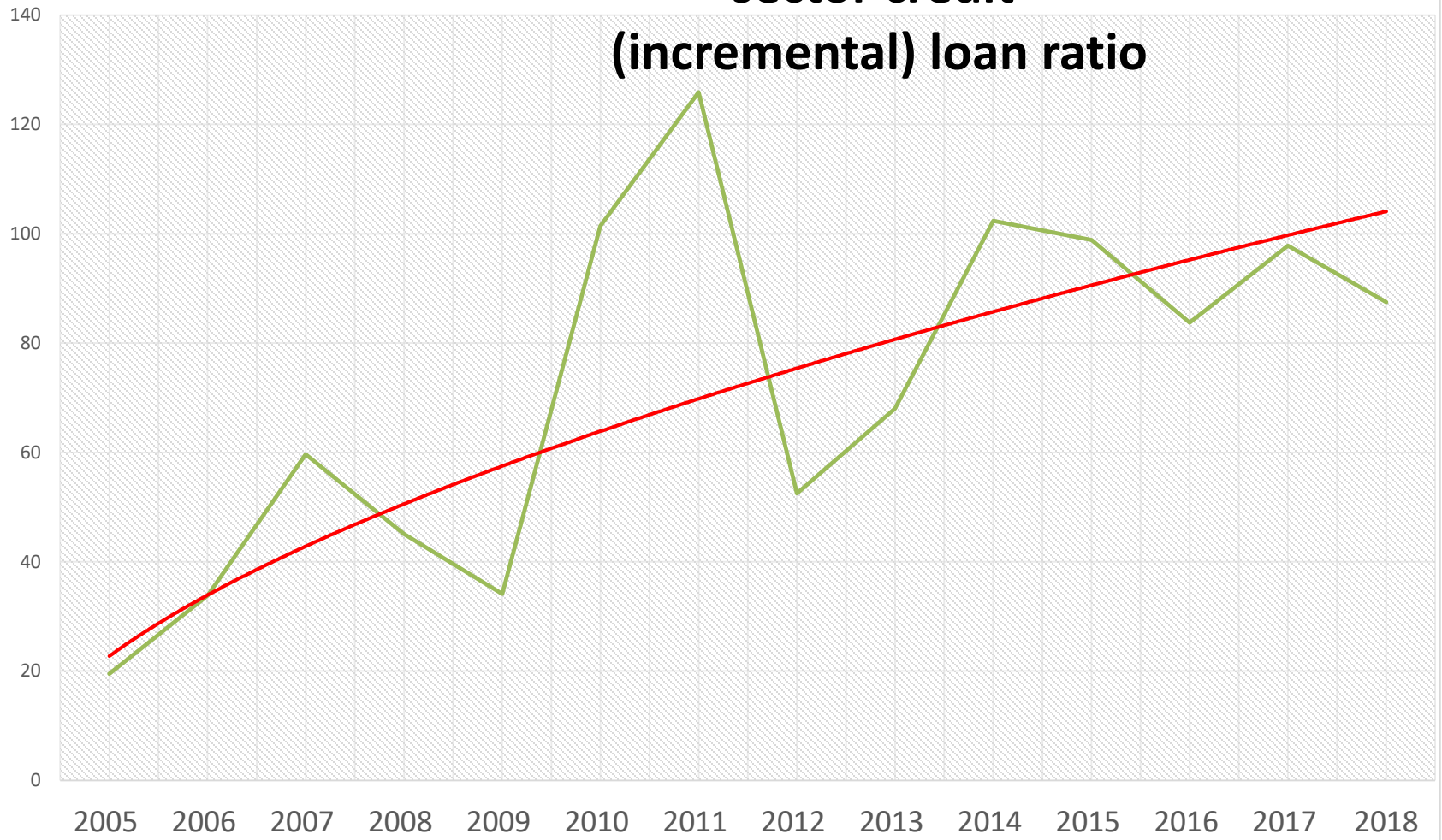
- A nonperforming loan (NPL) is the sum of borrowed money upon which the debtor ***has not made his scheduled payments for at least 90 days.***
- A nonperforming loan is either in default or close to being in default.
- Once a loan is nonperforming, ***the odds*** that it will be ***repaid in full*** are considered to be substantially lower.
- They inevitably will have to be written off or restructured (haircuts or payments extended).

Possibility to recover the principal or foreclosure the collaterals

- Once a loan is considered non-performing, banks may have the opportunity to recover the principal from
- loans backed by a home loan or vehicle loan.
- In these instances, the bank may begin the process of foreclosure, on a home, or move to seize the property and a vehicle.

Rising non-traded sector credit, relative to traded sector credit

(incremental) loan ratio



— Property/manufacturing loan (%) — Power (Property/manufacturing loan (%))

The skyscraper effect

- The skyscraper effect suggests that there is a positive correlation between the development of mega-tall skyscrapers and a recession in a country.
- The skyscraper effect was developed by British economist, **Andrew Lawrence**, in 1999.
- The Barclays Capital Skyscraper Index is an economic tool to forecast **impending financial downturns** by observing the **construction of the world's next tallest building**.

Examples

- The **Singer Building** and Met Life Tower were finished around the time of the 1907 panic.
- The **Empire State Building** was finished just as the Great Depression began.
- The **Sears Tower** (now Willis Tower) was completed just as the U.S. experienced the oil embargo and sunk into stagflation.
- The **Petronas Towers** in Malaysia were completed as the Asian Financial Crisis was beginning in 1998.

The Intuitively simple concept is related to the Austrian Business Cycle Theory: Fedrick Von Hayek

- First, a decline in interest rates at the onset of a boom drives land prices.
- Second, a decline in interest rates allows the average size of a firm to increase, creating demand for larger office spaces.
- Third, low interest rates provide investment to construction technologies that enable developers to break earlier records.
- All three factors peak at the end of the growth period

Pace hopes to emerge from massive debts

On the average, 84 million Baht a unit at MahaNakhon Tower

SET-listed developer Pace Development Corporation Plc looks set to continue sales of the remaining residential units worth around 5 billion baht at MahaNakhon tower to reduce debts.

Chief executive Sorapoj Techakraisri said the company's total debts will fall below 10 billion baht by the middle of the year from 15 billion at present after securing 14 billion from the sale of assets at the country's highest building, MahaNakhon, to duty-free retailer King Power International Group.



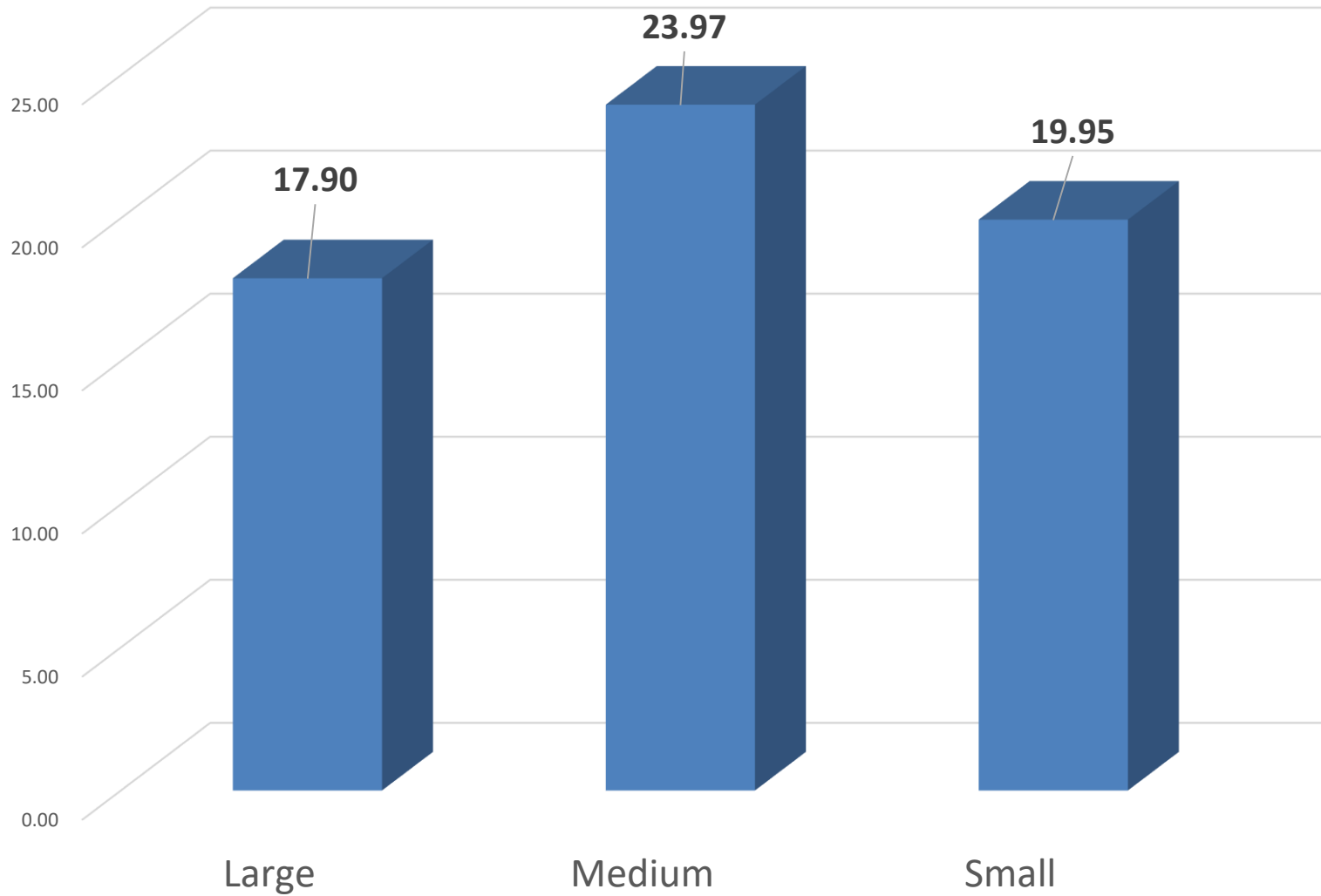
Capital Adequacy

- Equity (E) + Liabilities (L) = Assets (A)
- Liabilities = Deposits + Borrowings
- If borrowing is in USD, a massive devaluation would make net equity negative: technical bankruptcy
- **Net Equity = Assets – Liabilities**
- Despite negative equity, technically bankrupt, banks can still operate as long as they have sufficiently large liquidity to prevent **bank runs**.
- The central bank performs the role of “**the lender of last resort.**”

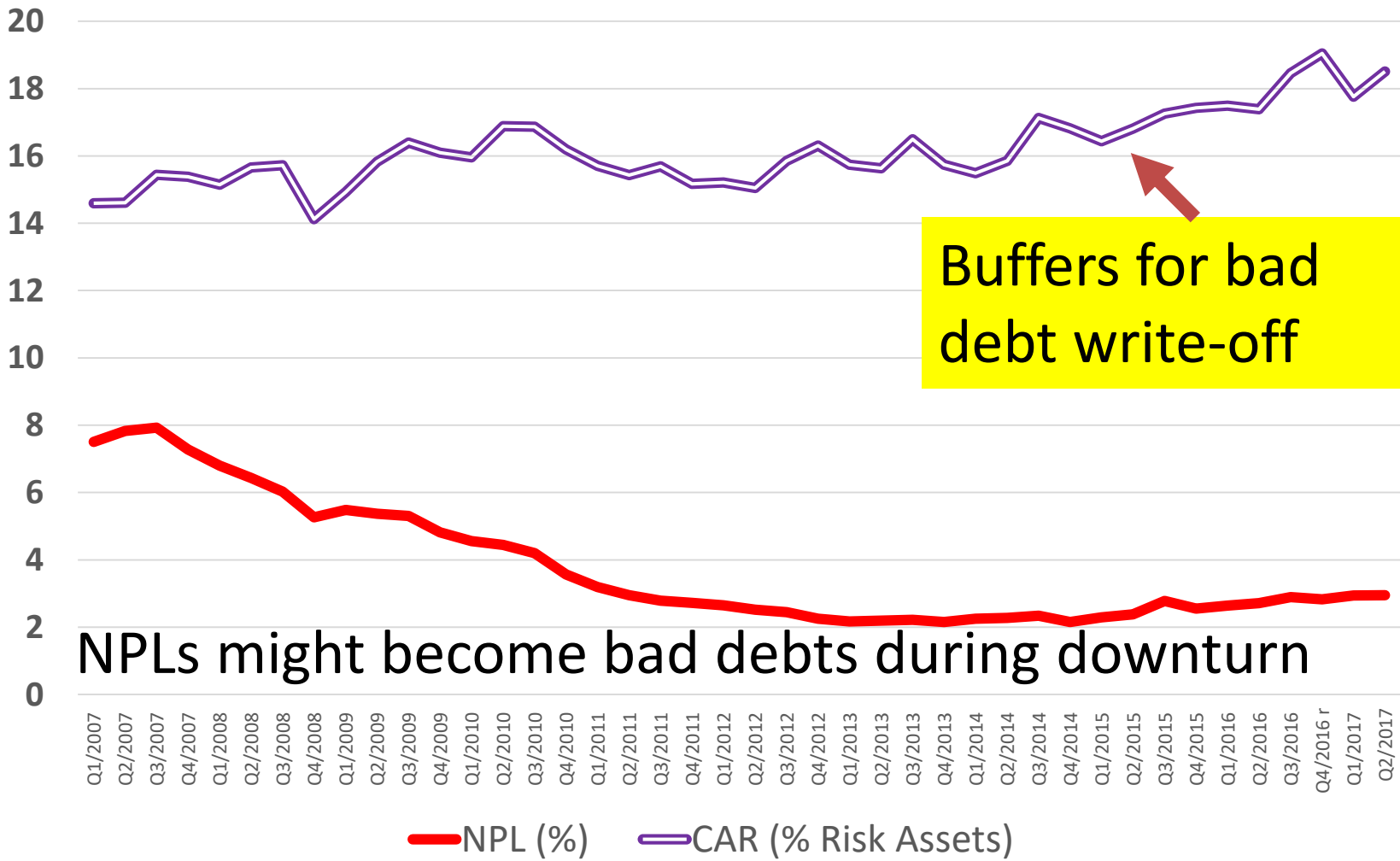
Capital Adequacy Ratio: (Equity/Risk Assets)

- When Assets (loans) turn into NPLs or bad loans, Net Equity can become negative as value of asset declines.
- When writing off bad assets, equity (E) must be written off at the same time.
- If E is not large enough, net equity can become negative (banks are technically bankrupt).
- The higher the ratio of equity to **risk assets**, the safer the deposits when banks have troubles with bad lending.
- That is why capital injection by government (FIDF) or foreign banks can bail out troubled banks by enhancing the capital adequacy.

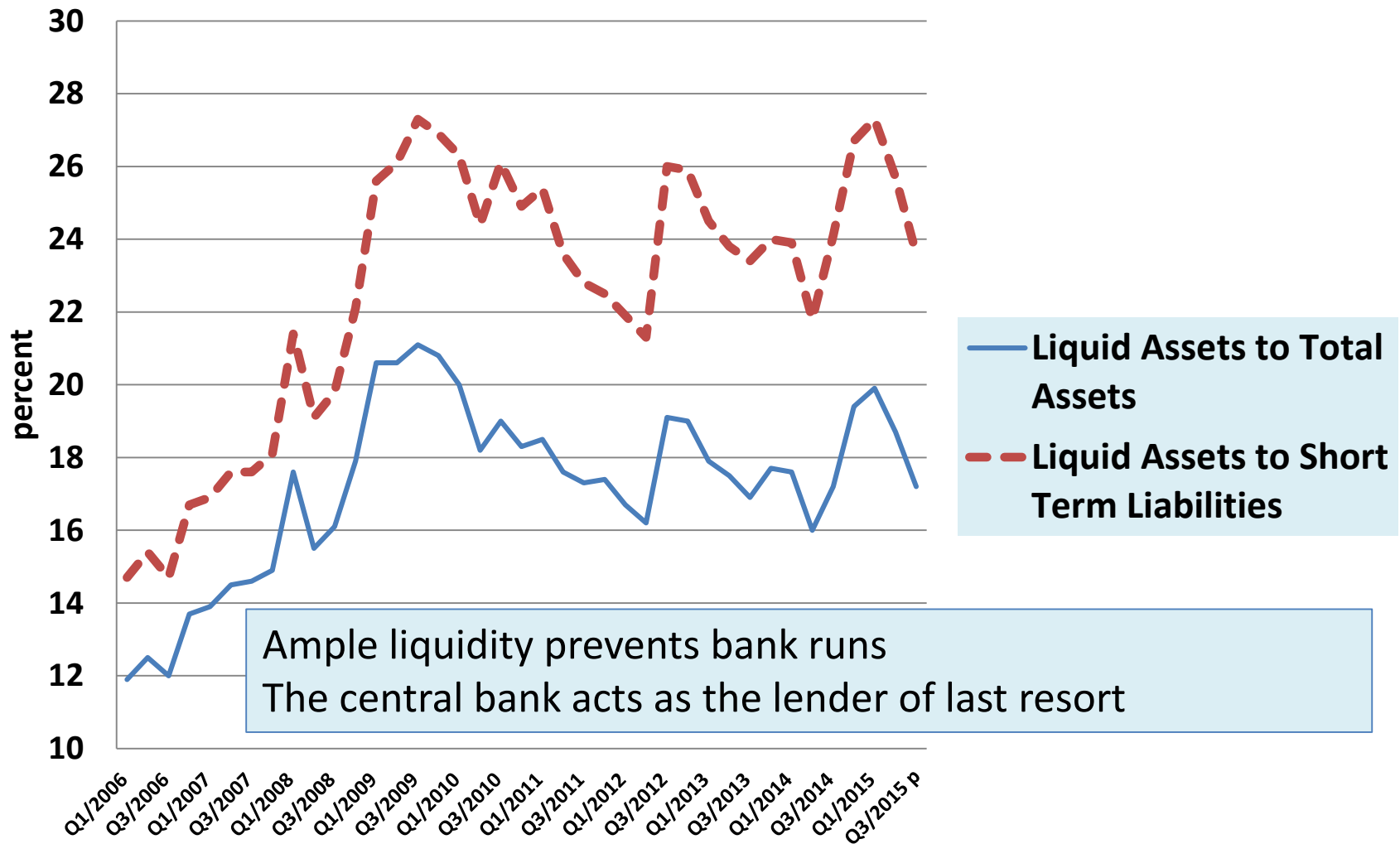
Capital funds/Risk assets Q2/2020



Commercial Banks' Capital Adequacy Ratio (CAR)
Capital to Risk Assets (%)



4. Liquidity



Basil III: A Rule Change

From legal reserve (liquidity ratio) to LCR

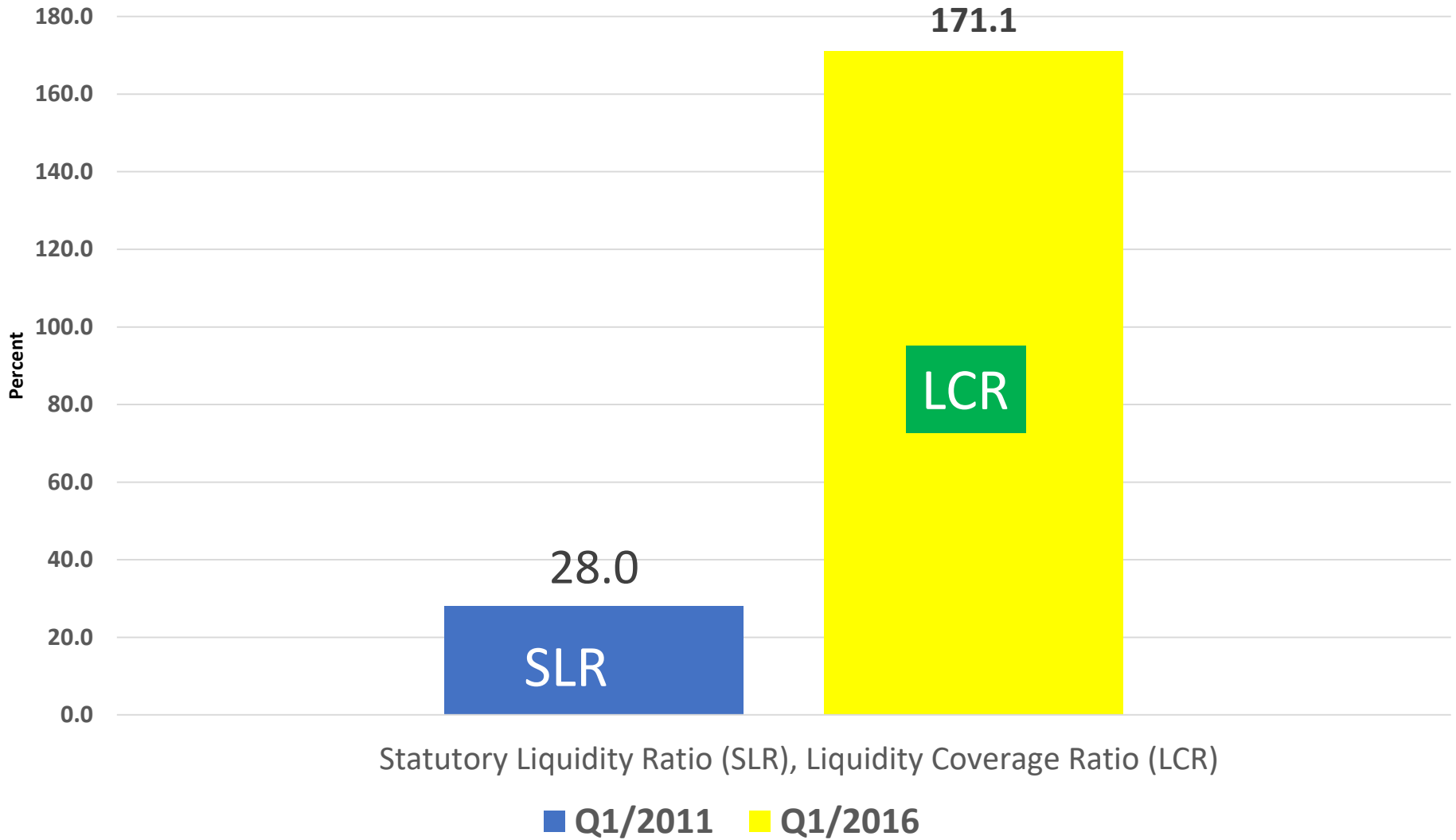
- The **Liquidity Coverage Ratio** (LCR) refers to highly liquid assets held by financial institutions to meet short-term obligations.
- $LCR = (\text{high quality liquidity assets} / \text{expected cash flow for the next 30 days})$
- The ratio is a generic stress test that aims to *anticipate* market-wide shocks.
- The LCR assures that financial institutions have the necessary assets on hand to ride out any short-term liquidity disruptions.

$$LCR = \frac{\textit{High Quality Liquid Assets}}{\textit{Expected cash flow (one month)}}$$

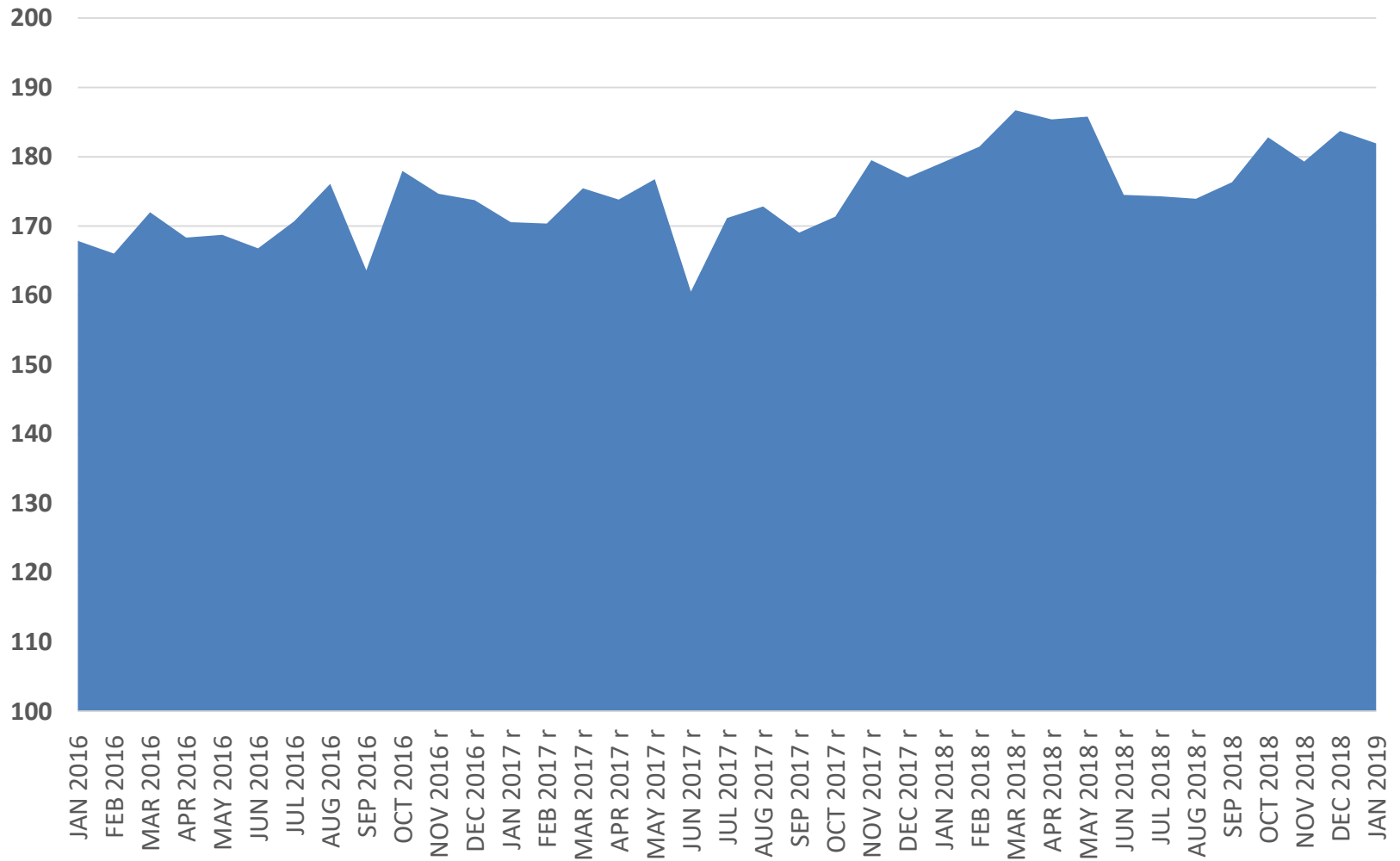
LCR must be above 100%

- Thai banks are required to have a 100% LCR, which means holding an amount of high quality liquid assets that are *equal* to or greater than its expected *cash outflow* over the next 30 days
- Highly liquid assets can include *cash*, *treasury bonds* or corporate debt.

Change from Statutory Liquidity Ratio (SLR) To Liquidity Coverage Ratio (LCR)

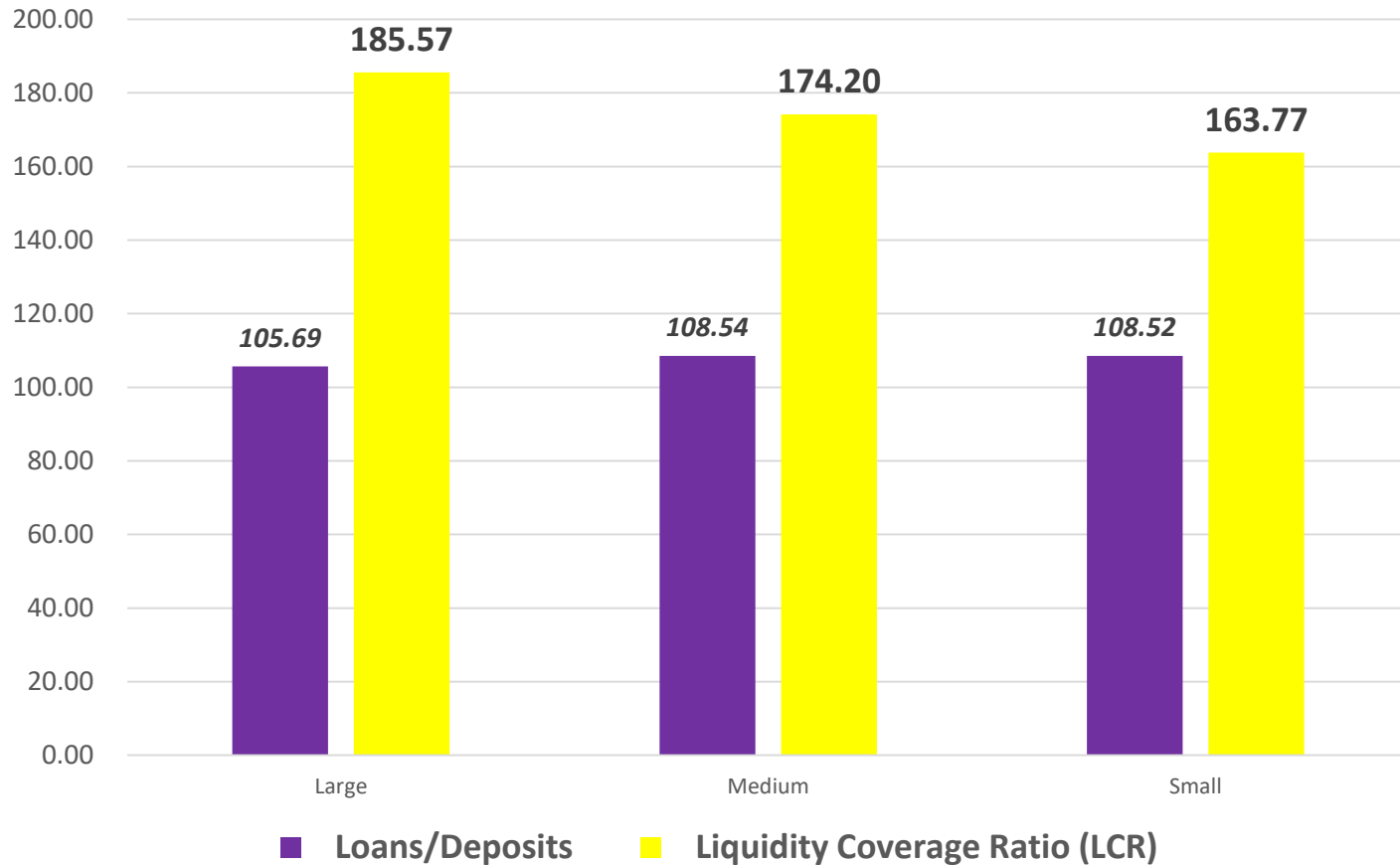


Liquidity Coverage Ratio (LCR) for banks in Thailand

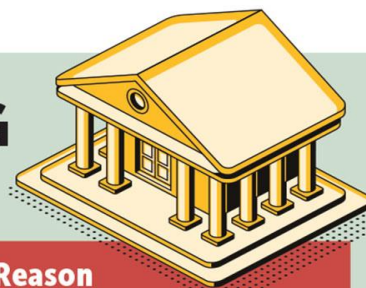


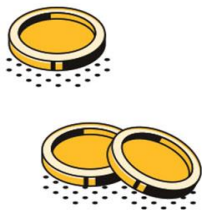

Asset Quality

2Q 2020



KEY DRIVERS OF THAI BANKING SYSTEM'S NEGATIVE OUTLOOK



Variable	Outlook	Reason
<ul style="list-style-type: none"> Operating environment 	Deteriorating	Economic growth prospects are worsening due to the Covid-19 outbreak
<ul style="list-style-type: none"> Asset risk 	Deteriorating	<ul style="list-style-type: none"> Asset risks will grow as worsening economic conditions hurt borrowers' debt-servicing capacity SMEs in consumer-related sectors and retail borrowers will be hit harder than large corporate borrowers because of weaker buffers against significant income deterioration
<ul style="list-style-type: none"> Profitability and efficiency 	Deteriorating	<ul style="list-style-type: none"> Net interest income will decline as loan demand slows and net interest margins decline, tracking declines in lower benchmark rates Credit costs will increase in line with weaker asset quality
<ul style="list-style-type: none"> Capital 	Stable	Banks' capital buffers will be sufficient to absorb losses
<ul style="list-style-type: none"> Funding and liquidity 	Stable	Banks will have sufficient liquid assets to cope with any unexpected loss of deposits
<ul style="list-style-type: none"> Government support 	Stable	<ul style="list-style-type: none"> The government is highly likely to support banks in an extraordinary situation The central bank is unlikely to adopt a bail-in regime in the next 12-18 months

AMPLE BUFFERS?

- “Thailand's banking sector is strong enough to cushion against a potential upsurge in bad debt and debt restructuring cases stemming from the coronavirus outbreak and official measures to contain the spread,
- Banks have a sufficient capital buffer in the event of higher past-due payments and debt restructuring” said Don Nakornthab, senior director for the economic and policy department at the Bank of Thailand.
- At the end of 2019, the banking system's capital funds totaled 2.85 trillion baht, with ***a capital adequacy ratio of 19.6% and loan-loss provision of 701.2 billion*** baht, according to the Bank of Thailand data.

Debt Moratorium expired at end of September

17 SEP 2020



Rising NPL for SME loans

- The NPL ratio for SME loans could rise to 10-20%, equivalent to an additional 200-400 billion baht, when the debt moratorium ended on Sept 30, 2020.
- The amended ***Bankruptcy Act No.9 of 2016*** sought to prevent asset seizure and allow creditors or debtors to propose business rehabilitation plans to the Central Bankruptcy Court
- Debtors will have a ***three-year grace period for debt repayment*** once their plans are approved by the court.

Bankruptcy Act (SME loans)

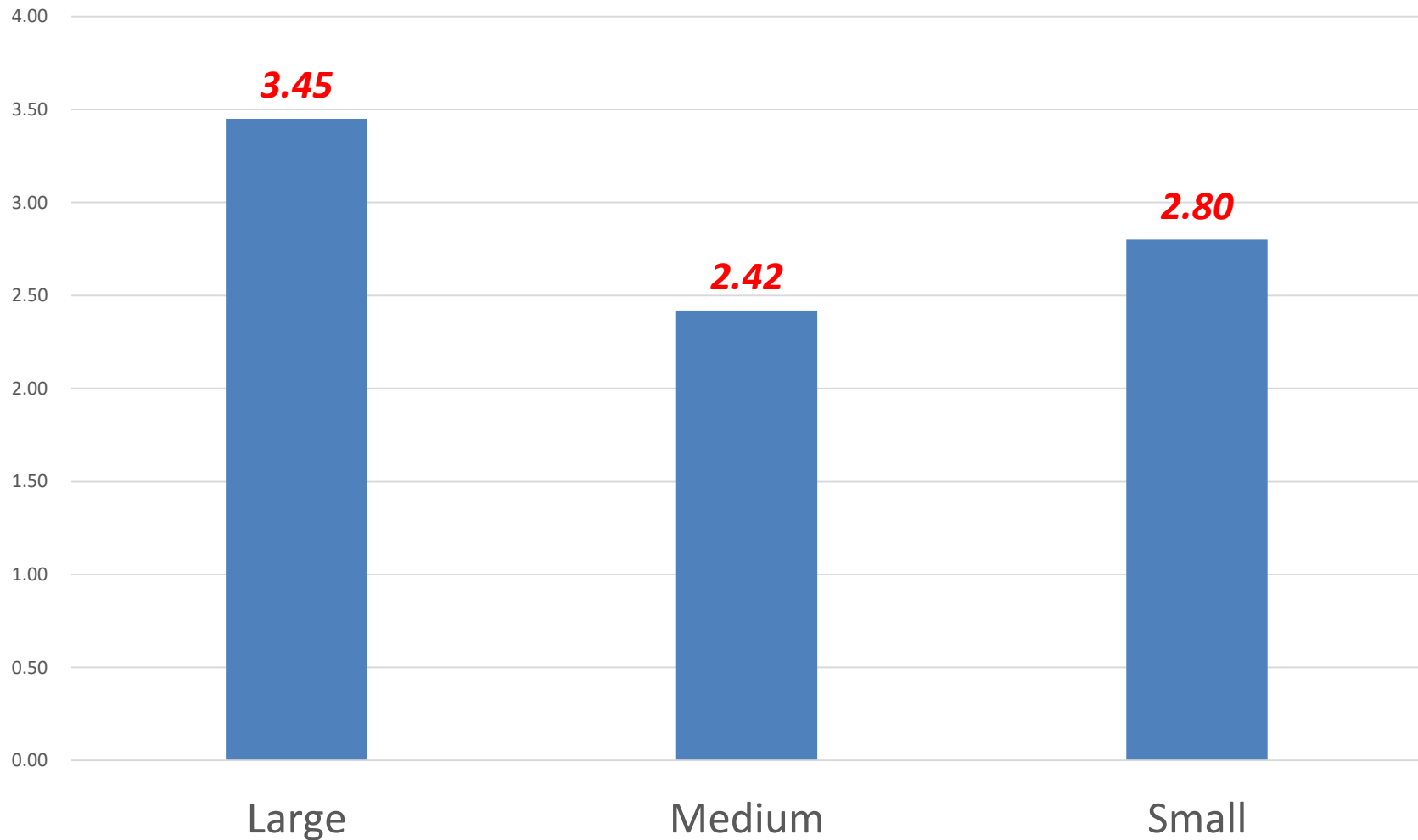
- The act stipulates that the *debt must not exceed 10 million baht* and the cost of preparing a business rehabilitation plan must be less than 1,000 baht, with 10,000 baht placed as a guarantee.
- Once the process is accepted by the Central Bankruptcy Court, it is the same procedure as the *rehabilitation plan* for large businesses, whereby *creditors are prohibited from proceeding with asset seizure or utility cut.*

BoT didn't extend debt moratorium (Why not?)

16 OCT 202

- The Bank of Thailand does not extend a broad-based debt moratorium but will introduce targeted measures to help debtors affected by the coronavirus pandemic.
- The central bank monitors the situation closely and did not expect rapid and large defaults after the *six-month debt holiday*.
- "The central bank will introduce debt measures, but not for everyone, to help financial institutions assist each debtor,"

Non - performing loan/Loans By Bank Size 2Q 2020



6.9 trillion baht loans are under relief measures: **Disguised NPLs**

- Small-and medium sized businesses (SMEs) with *combined debt of about 1.35 trillion baht* had been under the debt moratorium - part of the total debt of 6.89 trillion baht which had received overall relief measures including *repayment extensions and interest reductions*.
- Of those SMEs loans, about 400 billion baht owed to specialized state banks has received another three-six month debt moratorium, while SMEs owing some 950 billion baht to commercial banks and non-banks would be mostly able to service their debt.
- **The BoT will ask banks to maintain until the end of this year the status of their debtors in restructuring talks** so that they will not become non-performing loans.

Key words

1. Bank-based economy
2. Dichotomy between real and monetary sector
3. Creative accounting
- 4. *Frederic Von Hayek***
5. The skyscraper effect
6. Capital Adequacy Ratio
7. Liquidity vs Loan Coverage Ratio