

# Thailand's financial sector

Bhanupong

**Lecture 23**

**Chapter 4:** Banking sector and adjustment to financial crises

**Chapter 5:** Stock market and macroeconomy

# Mark Twain

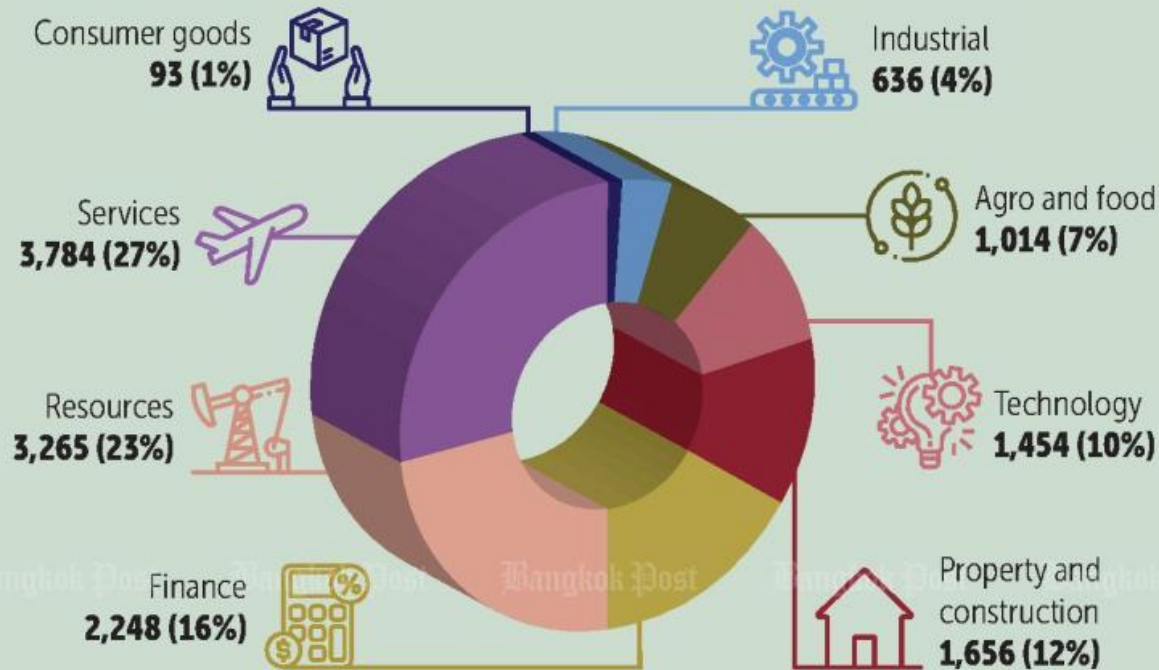
**“It isn’t what you don’t know that gets you into trouble; It’s what you know *for sure* that just isn’t so.”**

# February 2020

## SET INDEX: BREAKDOWN BY MARKET CAPITALISATION

Unit: Billion baht

Total market cap = 14.15 trillion baht



Note: Data as of Feb 28, excluding property funds, REITs and other 58 securities.  
Total number of SET-and MAI-listed companies accounts for 725 firms

# The Black Monday

## March 9, 2020

- Thailand's stock market suffered the biggest equity sell-off in Asia-Pacific for the third time in less than a month, with total market capitalization down 3.25 trillion baht year-to-date, as the coronavirus crisis and crashing oil prices delivered a double whammy.
- The Stock Exchange of Thailand (SET) index plummeted on Monday to its lowest close since January 2016. The bourse ended the day down 8%, losing 108.63 points, to close at 1,255.94 in trade worth 103.6 billion baht.
- On Feb 24 and 26, the SET index suffered the biggest drop among Asian bourses as confidence was hampered by rising coronavirus cases outside of China.
- A series of sharp corrections has left the SET index down 13.6% year-to-date, with total market cap of 13.5 trillion baht, a steep drop from 16.75 trillion baht at the end of 2019.
- Share prices of companies under the umbrella of national oil and gas conglomerate PTT Plc saw steep losses of more than 20% from Friday's close, with PTT's oil and gas drilling arm, PTT Exploration and Production Plc, down the most at 29.8%.

# March 12, 2020

- Share prices dived on the Thai stock exchange on Thursday morning after the World Health Organization declared a global Covid-19 pandemic and the US banned the entry of travelers from mainland Europe.
- The Stock Exchange of Thailand (SET) index plunged 109.84 points to end the morning trading session down 8.8% at 1,140.05 points in turnover worth 53.8 billion baht.
- *The bourse tanked by 9.5% at one point to 1,131.70 points, nearly triggering a circuit breaker.*
- There are two stages for a circuit breaker. The first occurs if the SET index falls by 10% from the previous day's close. All trading in listed securities is halted for 30 minutes.
- The second stage occurs if the index falls by 20%, or another 10%, from the previous day's close. Trading in all listed securities is halted for one hour.

# 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**?

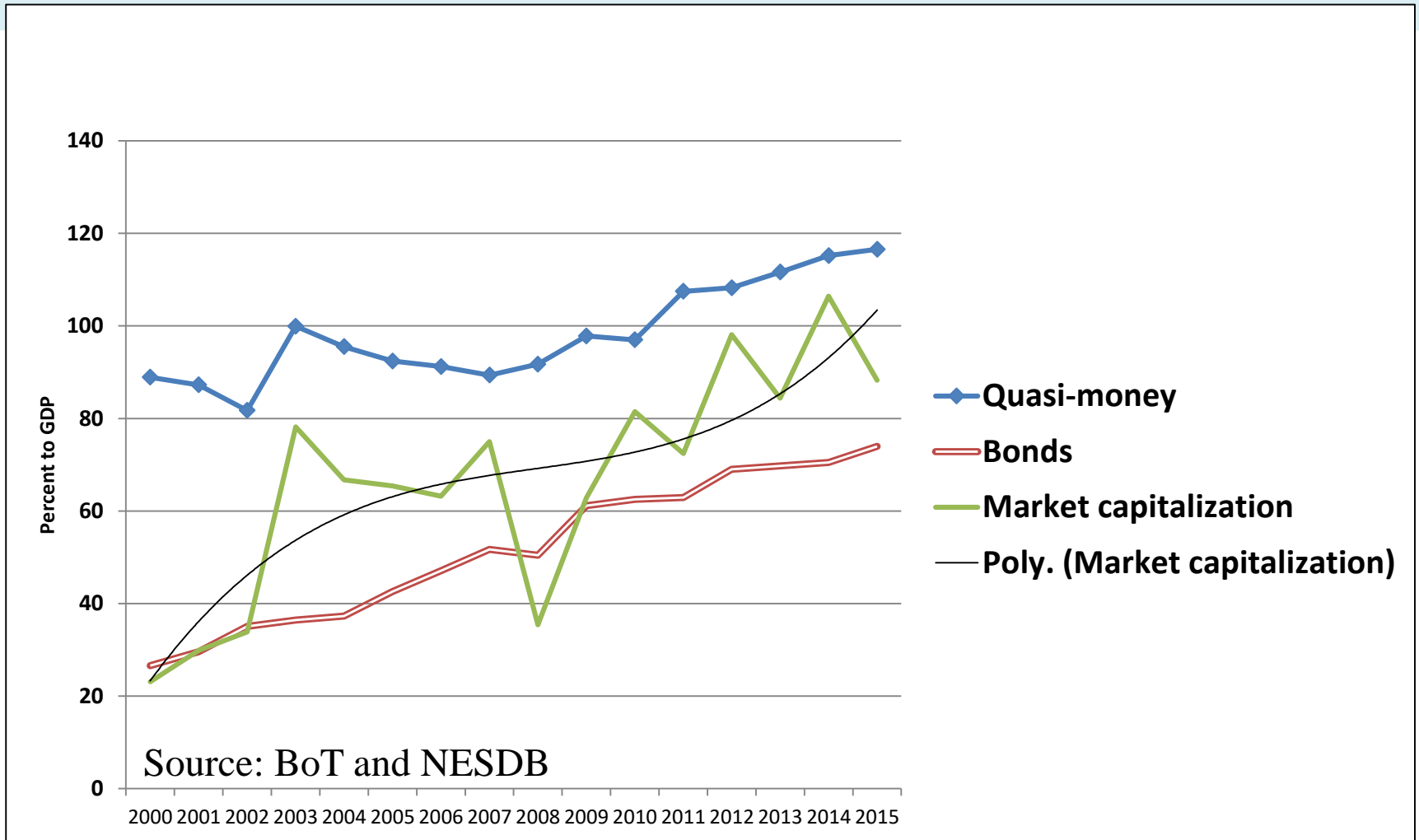
# Questions from lecture 23: Financial Sector's resilience

- What factors are responsible for the **resilience** of Thai banks during the subprime mortgage crisis and the subsequent global recession?
- Has the resilience of the financial sector remains in tact after the outbreak of the coronavirus?

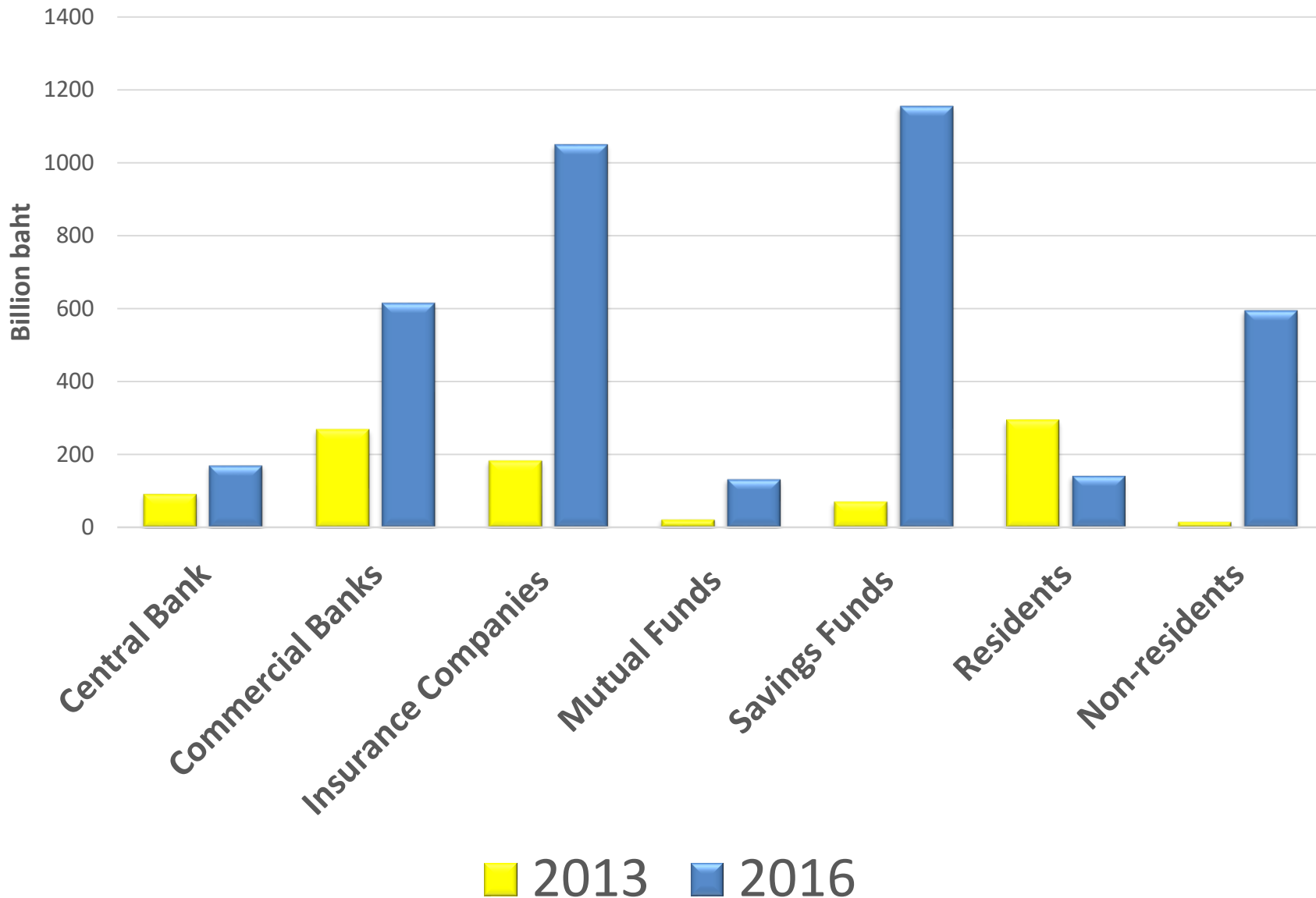
# Outline

1. Modes of savings and financing
2. Stock market and commercial banks
3. How good bankers become bad bankers
4. Resilience of the Thai banks
5. Foreign ownership and capital injection
6. Soundness of financial institutions

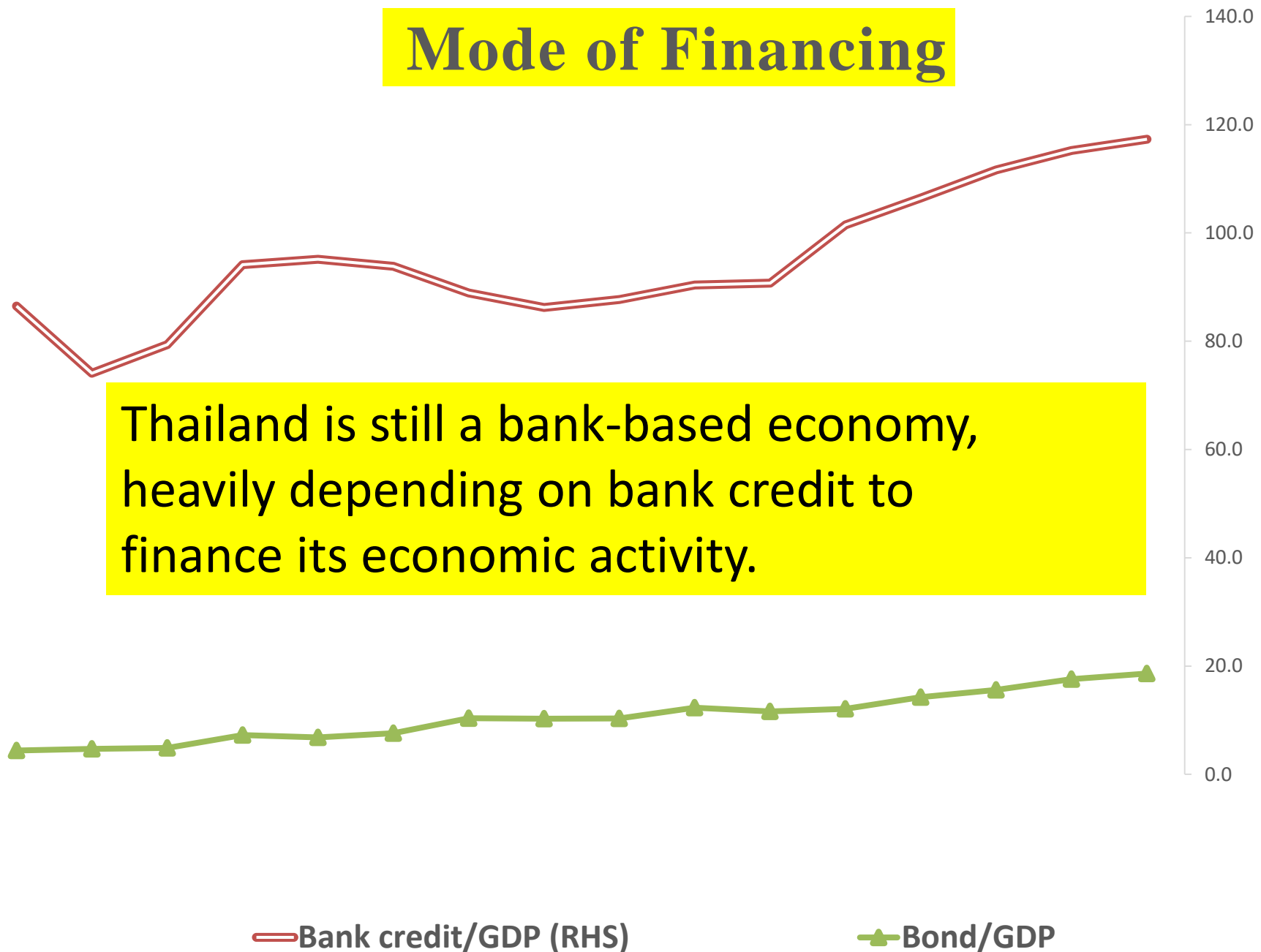
# 1. Mode of financial savings



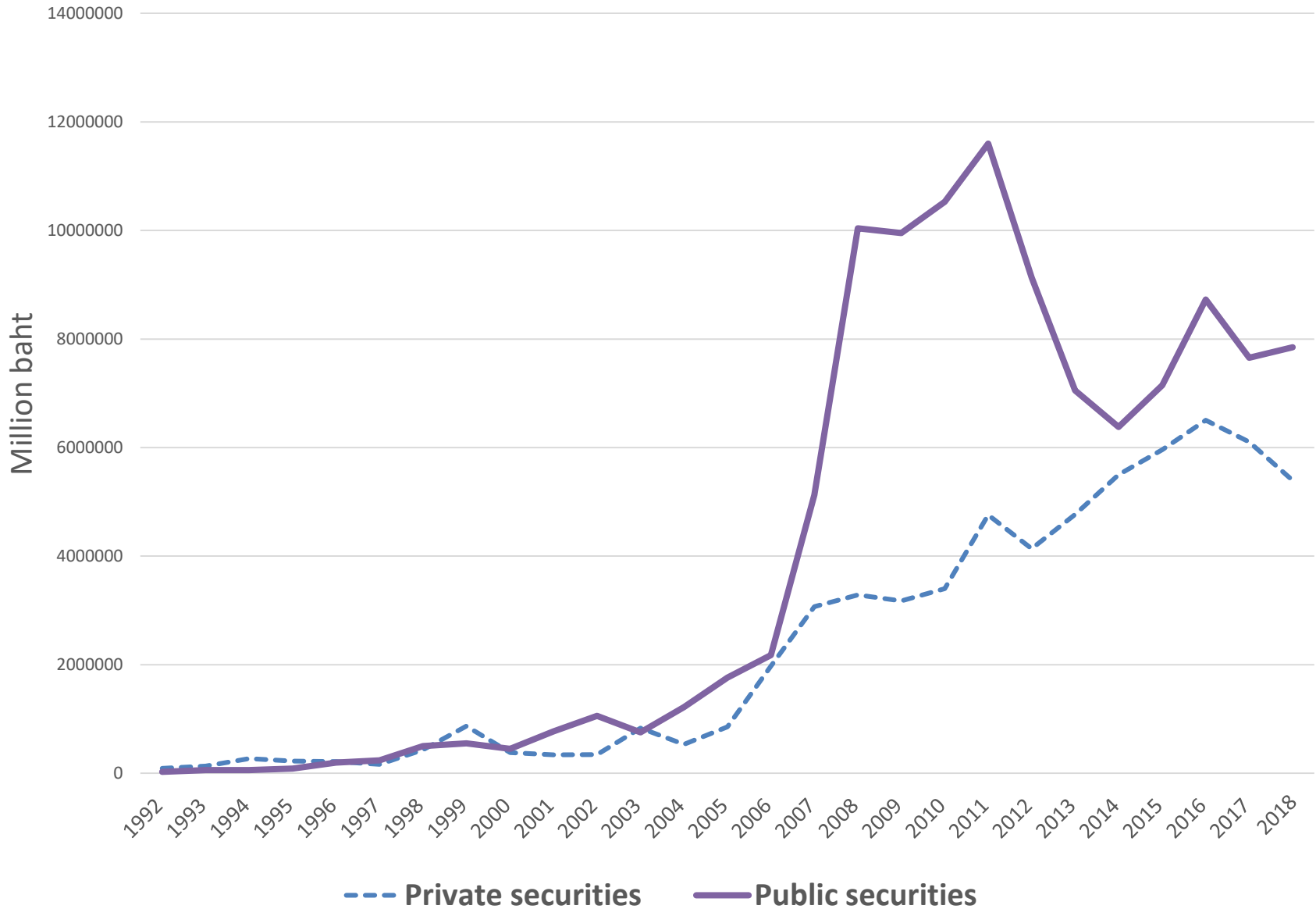
# Profile of Thai government bonds' holders



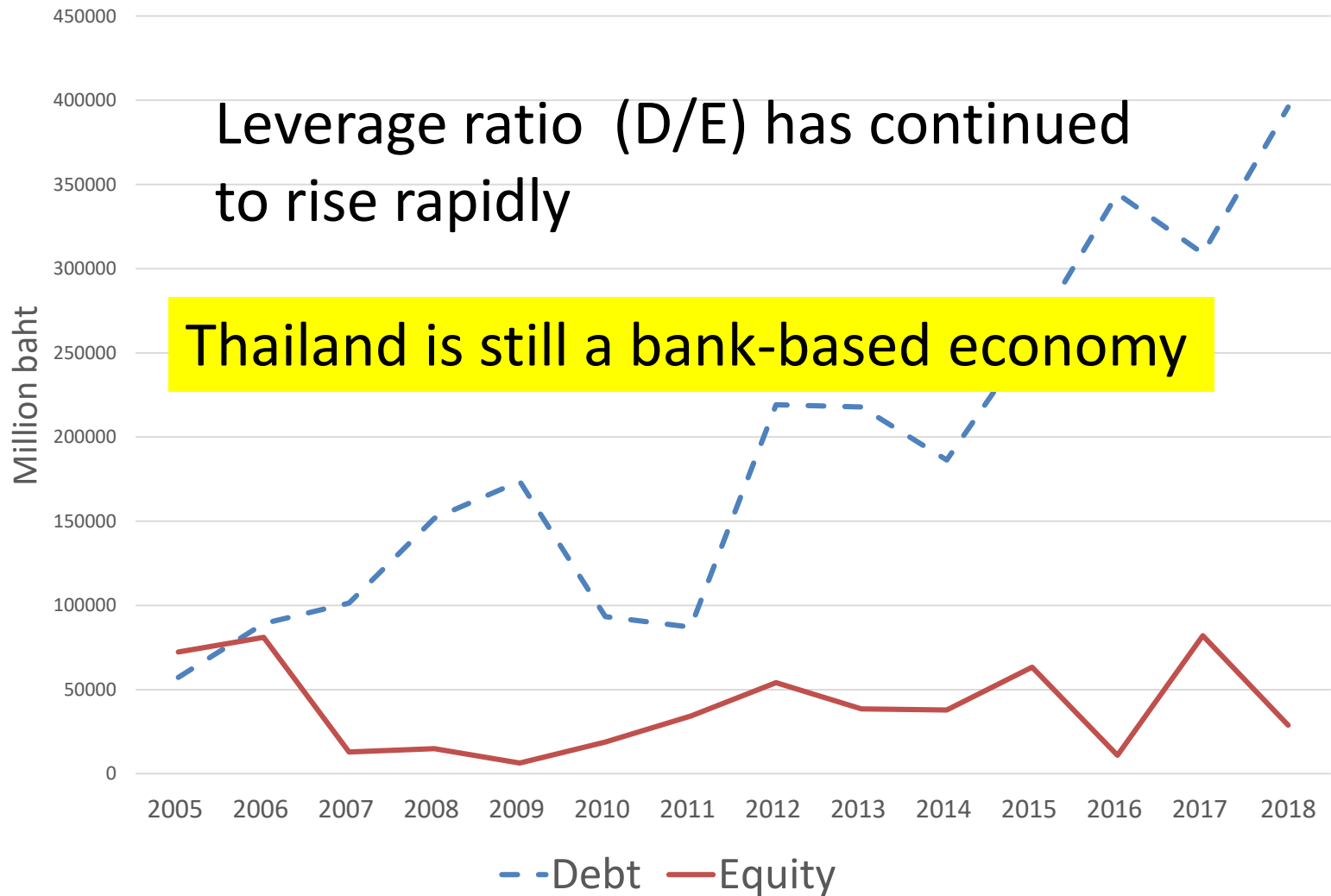
# Mode of Financing



# New issuances of private and public securities

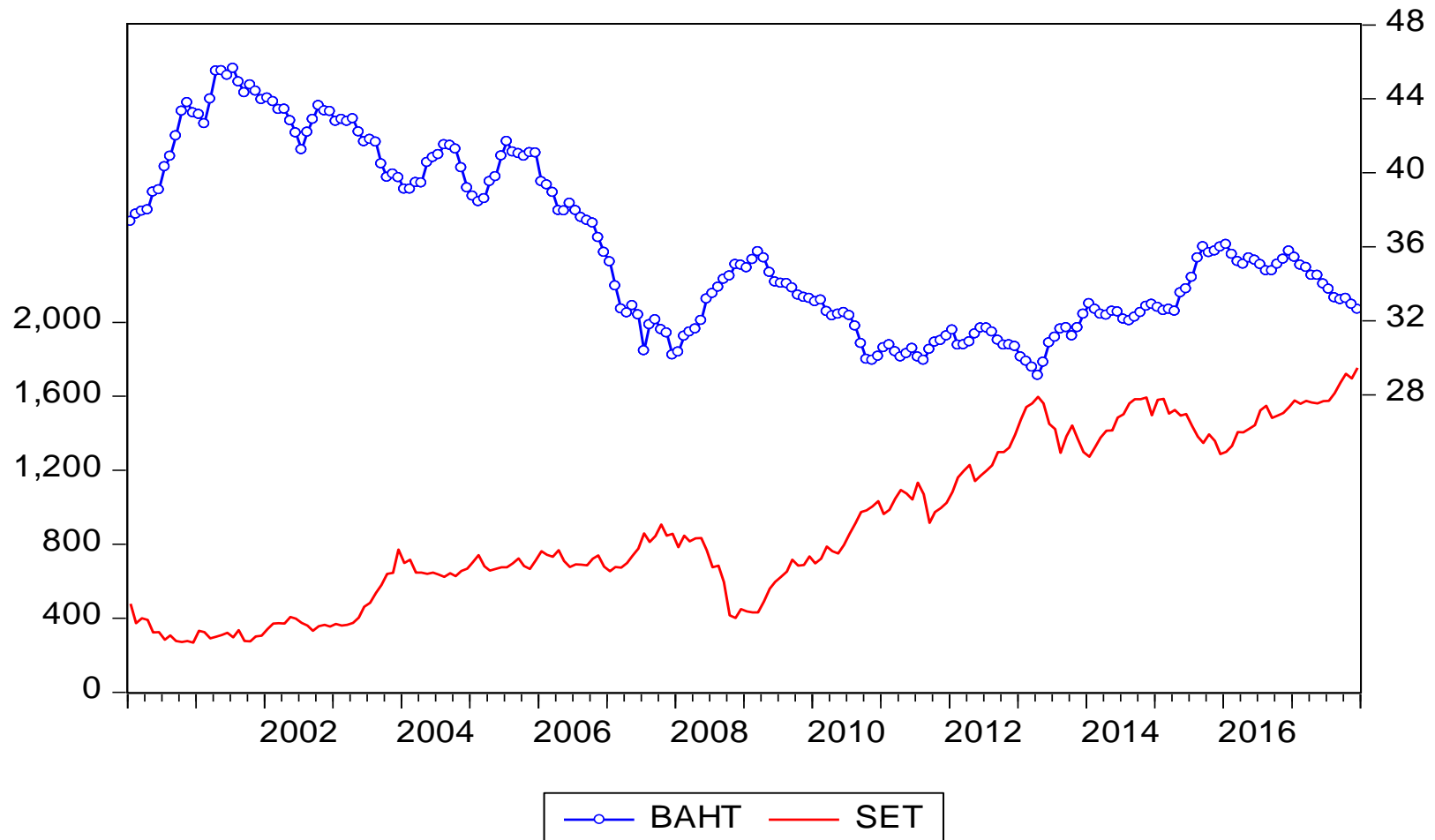


## New issuances of debt and equity in Manufacturing sector



## 2. The stock market

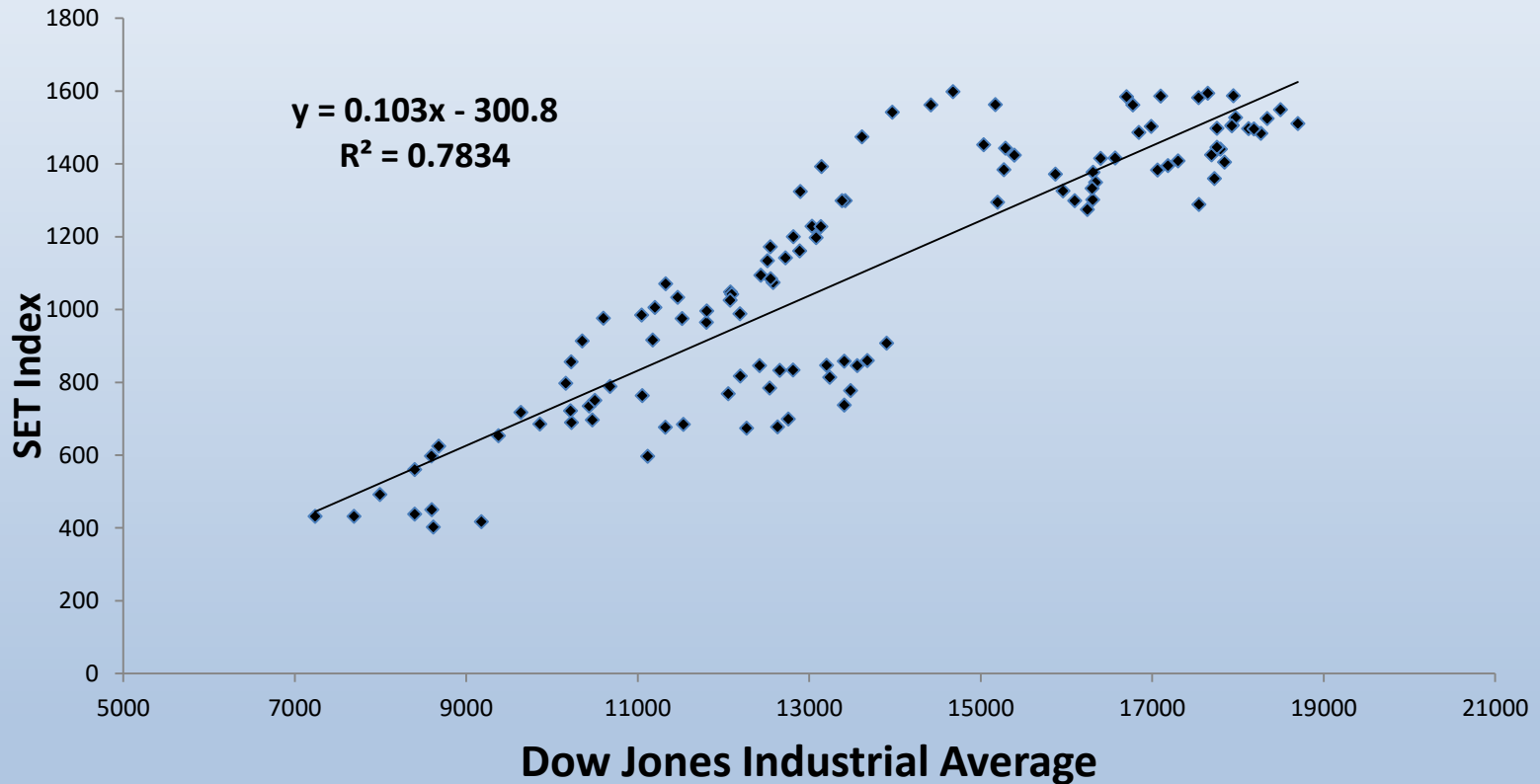
# Stock Price Index and Baht/USD



# SET vs. Dow Jones

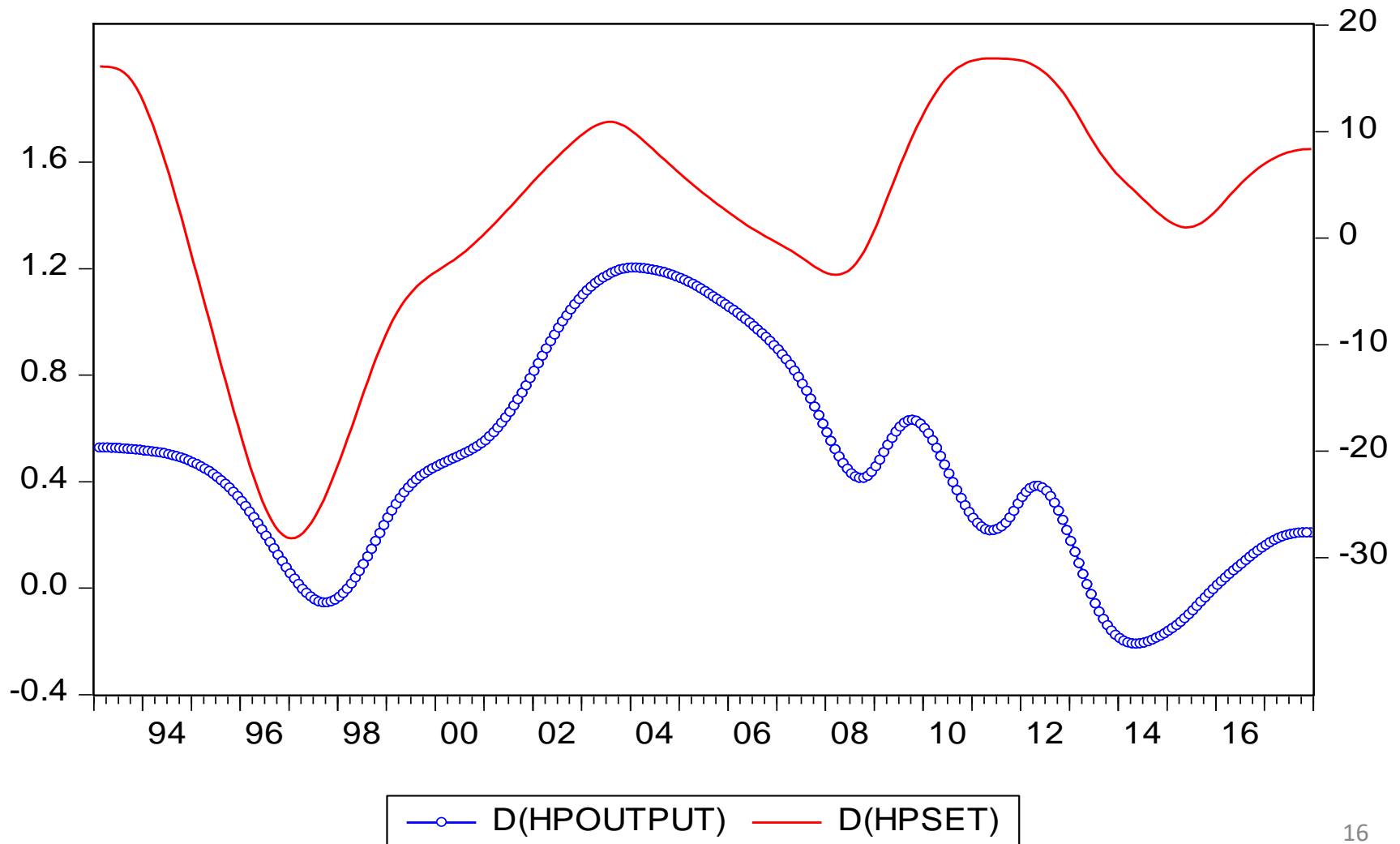
2007-2016

Source: Bank of Thailand and Federal Reserve Bank



Any lurking variables?

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



# No dichotomy between real and monetary sector

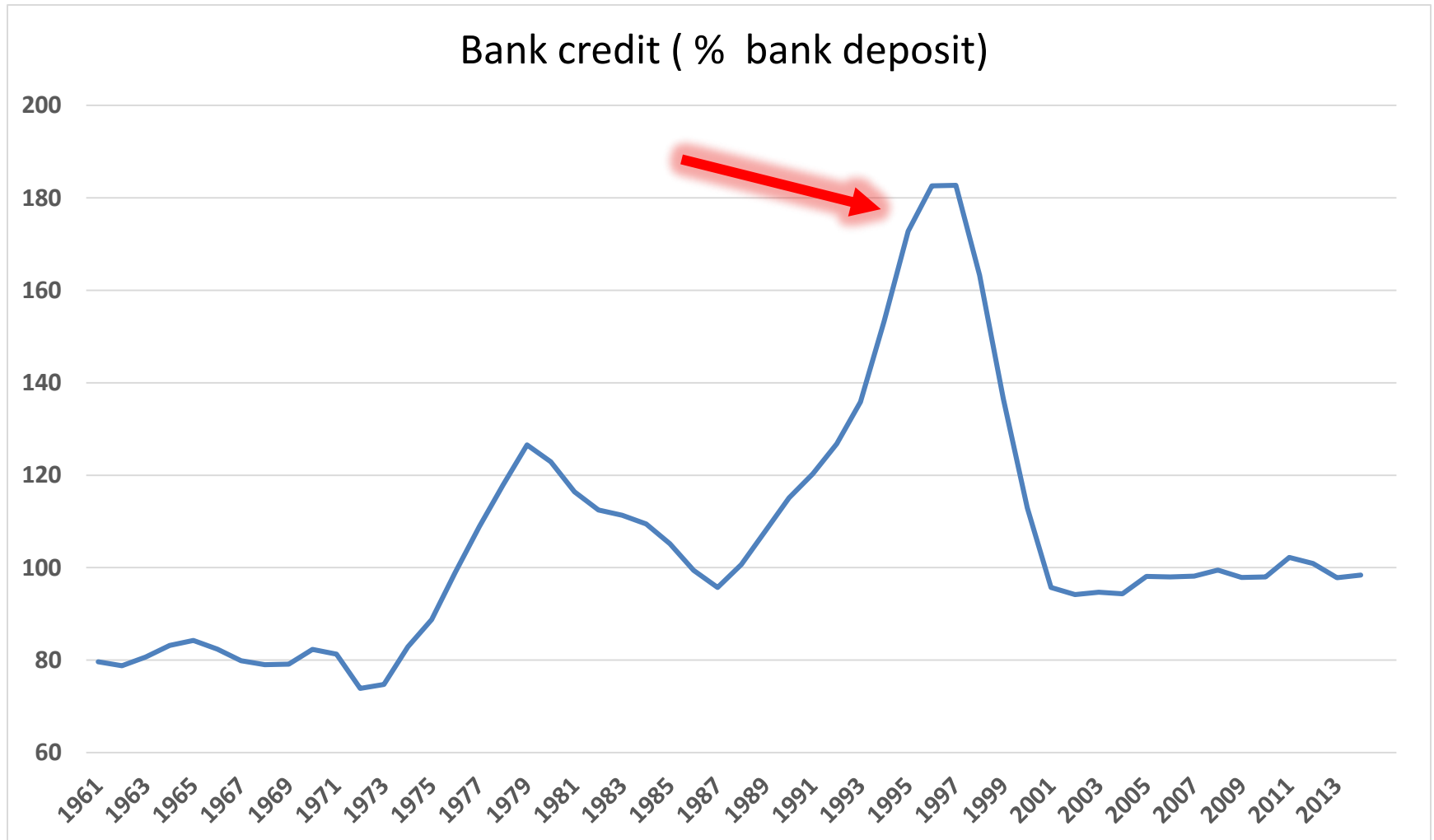
- In the **classical world**, the real economy is separated from the financial sector in the sense that the money supply does not affect the real sector.
- The only function of the money supply is to determine the price level but has no impact on output and employment.
- A dichotomy between the real 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***.

## Real and financial sectors are inseparable sectors

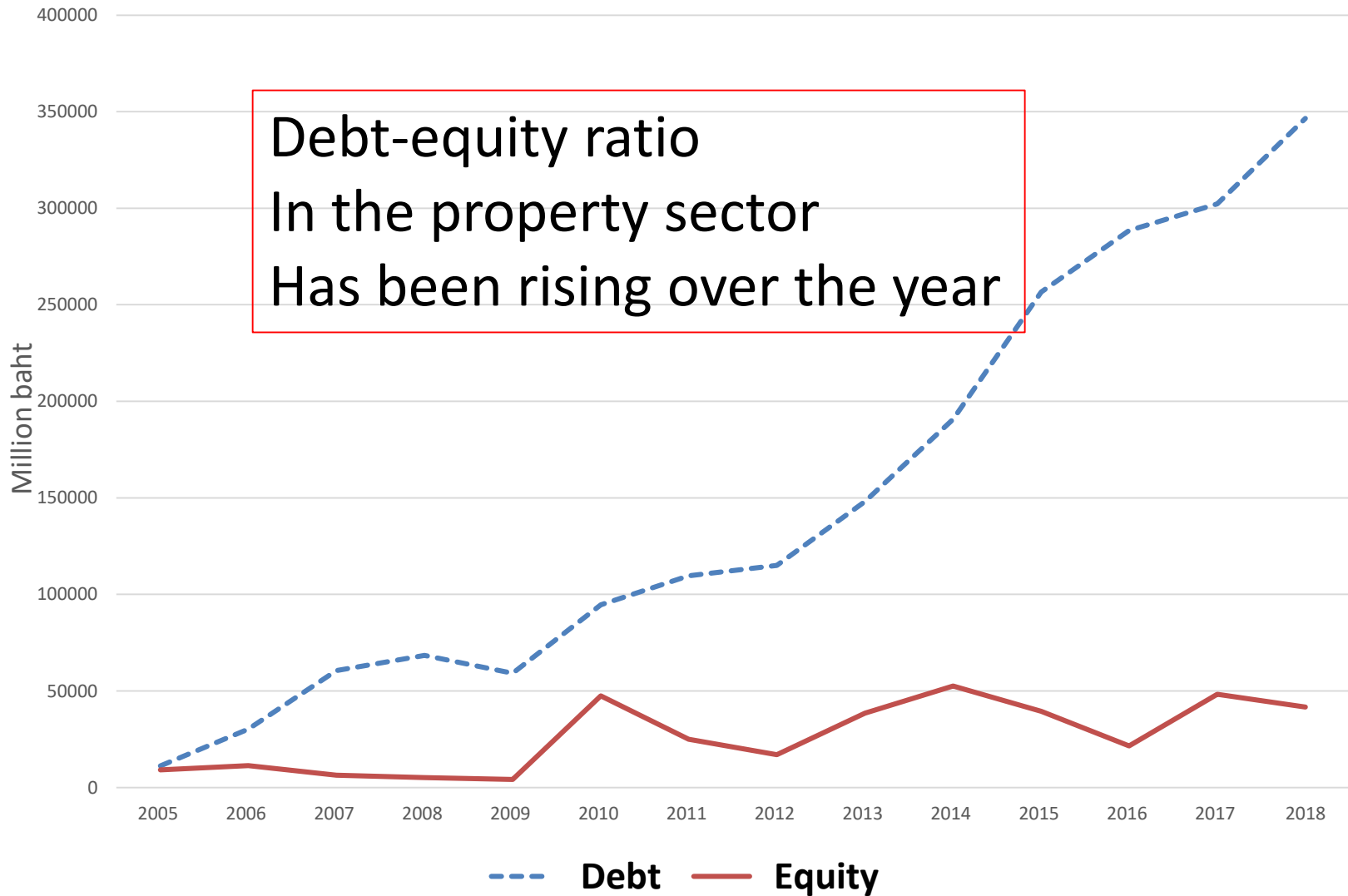
- The empirical evidence provided in chapter 5 indicates that there is also ***another channel***, indicating that the real and monetary sectors are inseparable.
- ***The stock market*** is another channel that links the ***financial sector and the real sector***.
- Shocks in the financial sector can be transmitted to the real sector and vice versa.

# Financial Instability Hypothesis

## Hyman Minsky



# Real Estates: New issuances



# 3. Roots of financial distress

- 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”)

## 4. Vulnerable and resilient sector

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

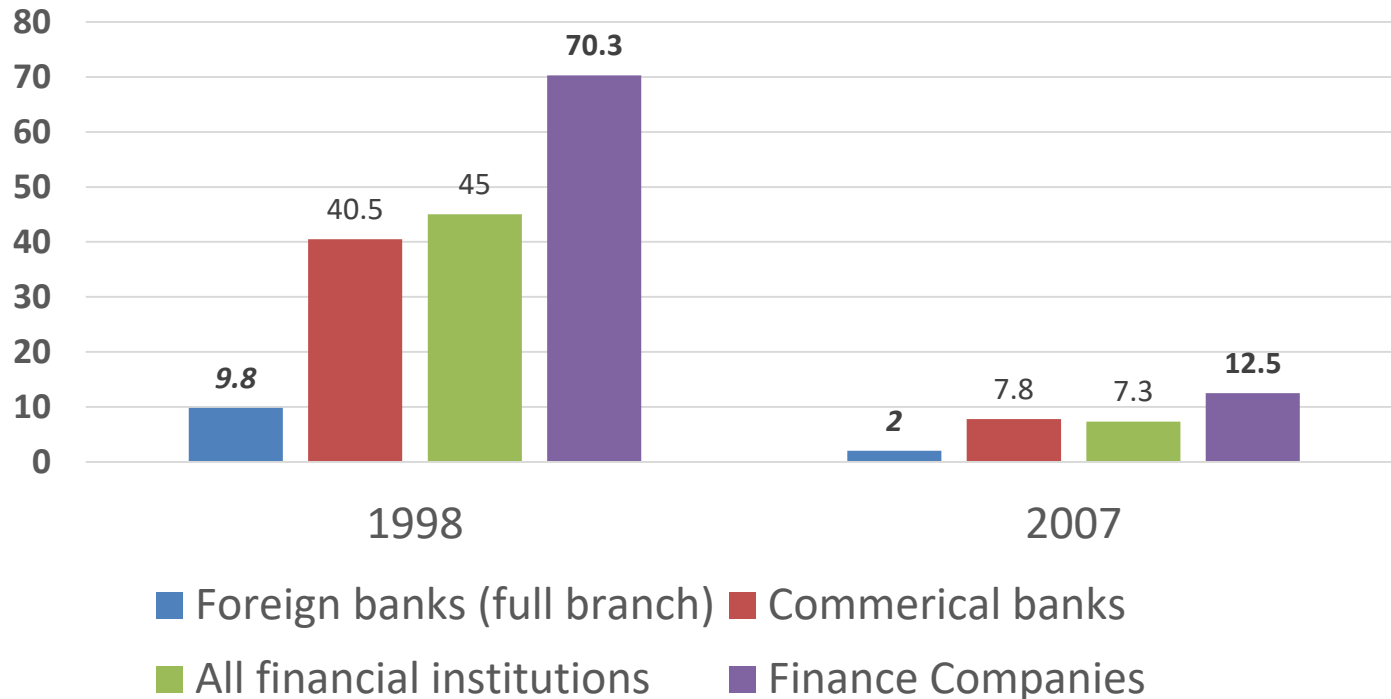
# Costs and benefits of capital liberalization

- 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.
- But 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



# Thai 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 suffered marginally 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

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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

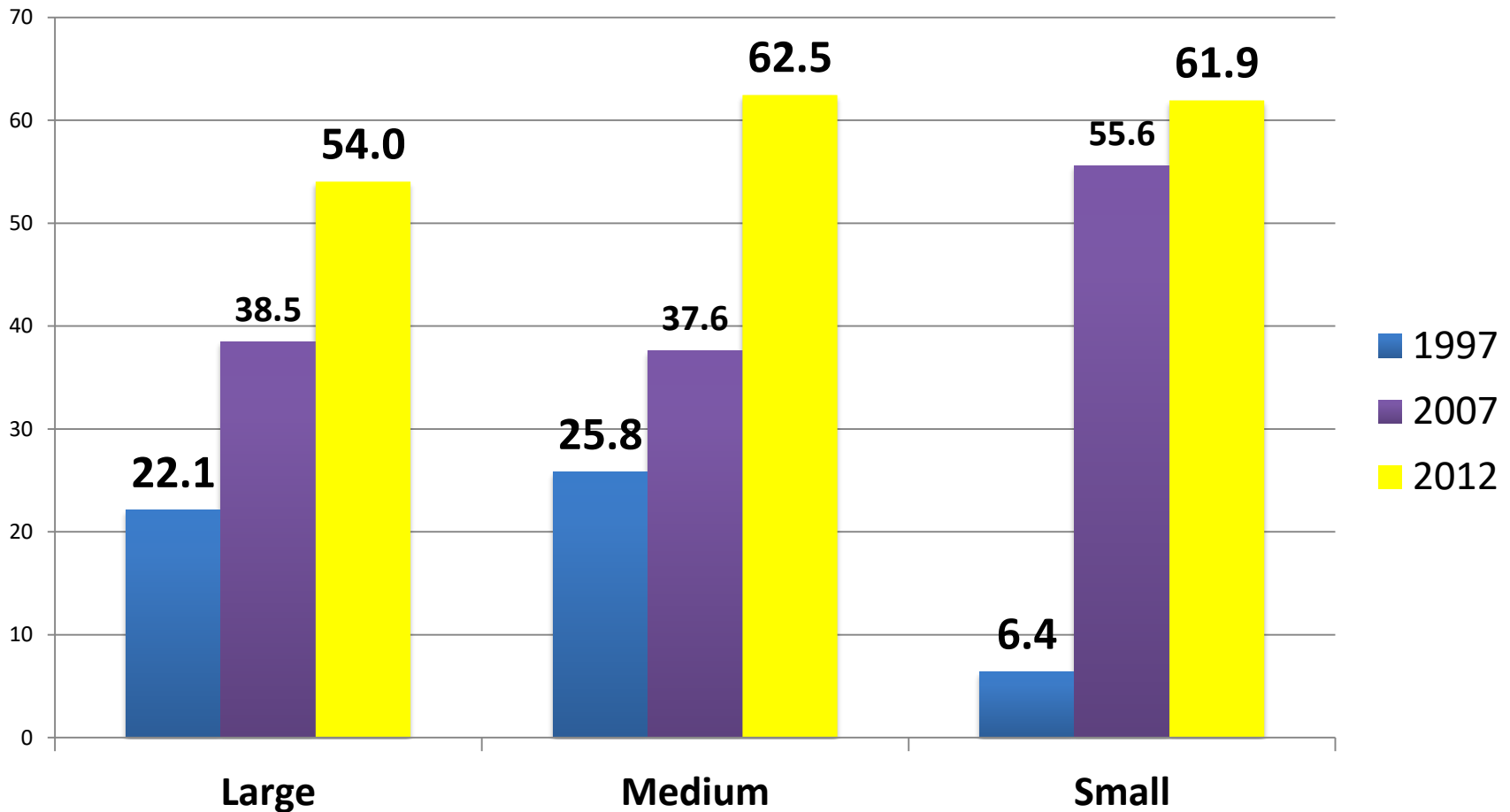
## 5. Benefits from foreign banks' penetration

- Thai financial institutions, the Bank of Thailand, and the ministry of finance could not 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.

## 5. 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.
- Financial Institutions Development Fund (***FIDF***) is an arm of the BoT for dealing with defunct 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*** bailouts are still looming large until today.

# Foreign ownership in Thai banks (% total equity)



# 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 banking 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, it can be a small bank too.
- In particular, it means that the most likely to fail bank is so **interconnected** with the rest of the economy that its failure would be a big event.

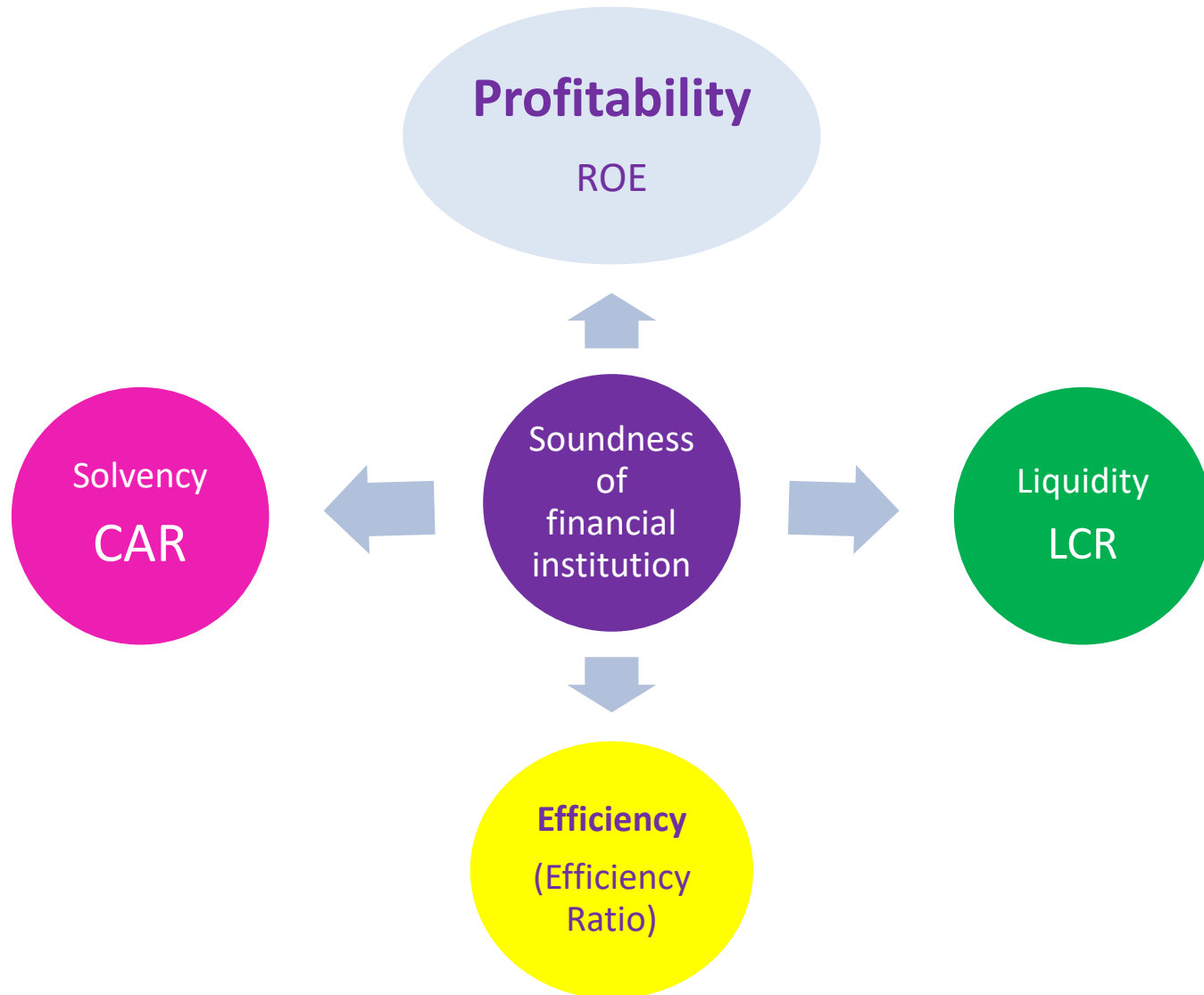
# What should the central bank do?

- 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.

## 6. **Soundness** of financial institutions and their **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



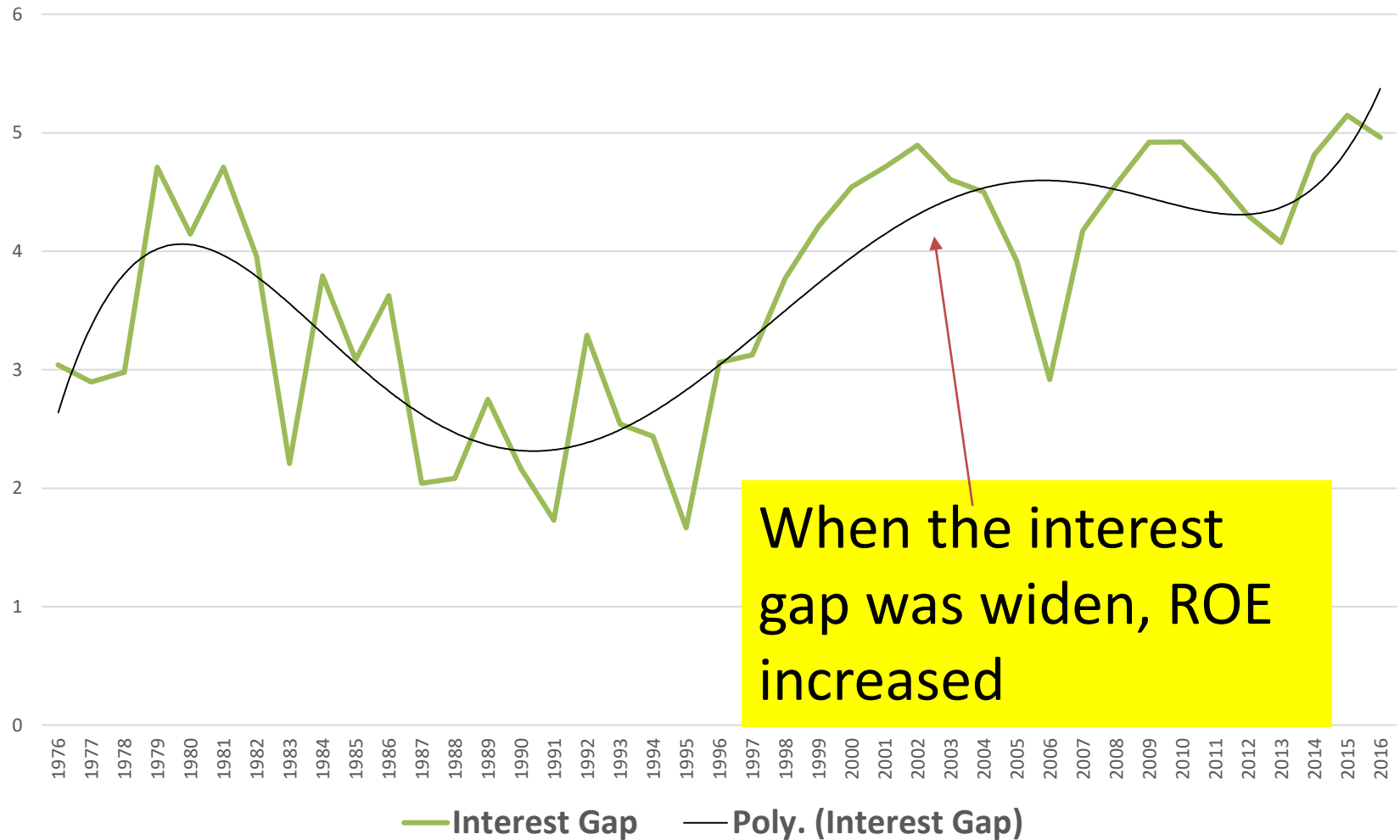
# (1) Determinants of bank profitability

- 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.

# A measurement of profitability

- Return on equity (ROE) is positively related to Return on Assets (ROA).
- The higher the gap between lending and deposit rate, the higher the ROE.
- The **large interest gap** 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 Gap between lending and Deposit Rates



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

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

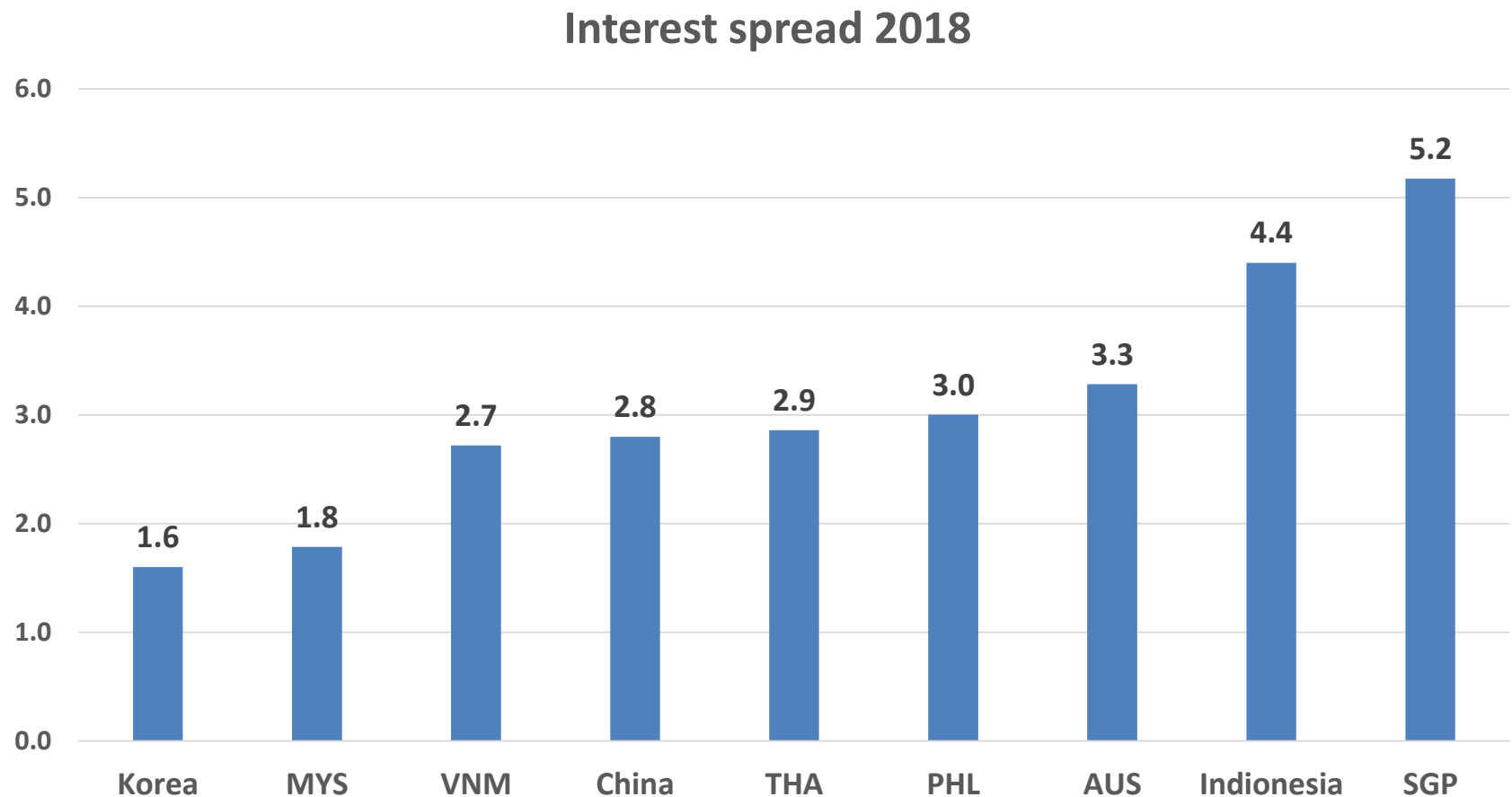
$$ROE = \frac{\text{Return to Assets}}{\textit{Capital / Assets}}$$

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

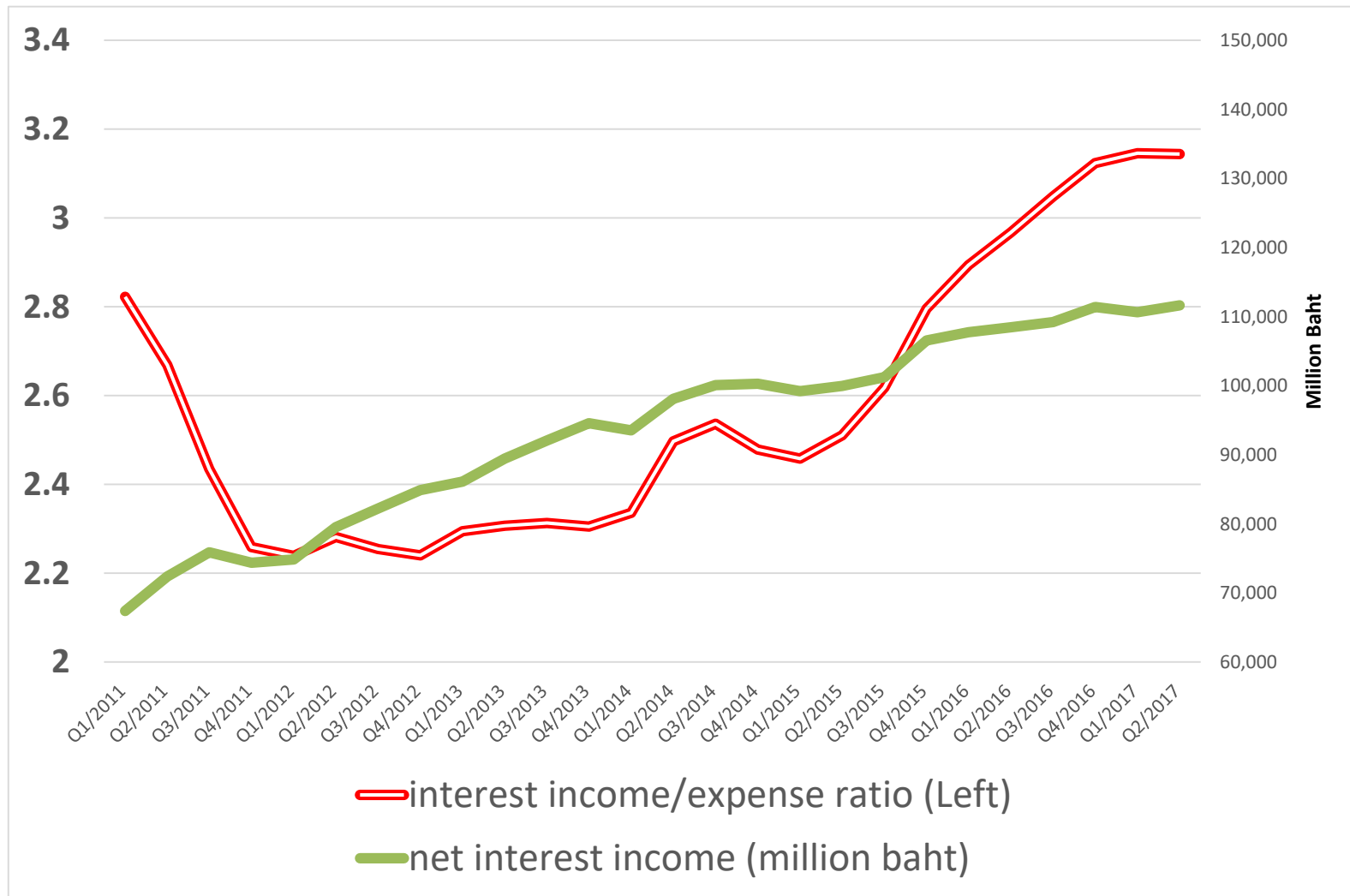
# Interest gap ( $r_L - r_D$ )

- 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.

# Does the wide interest gap indicate bank inefficiency?



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

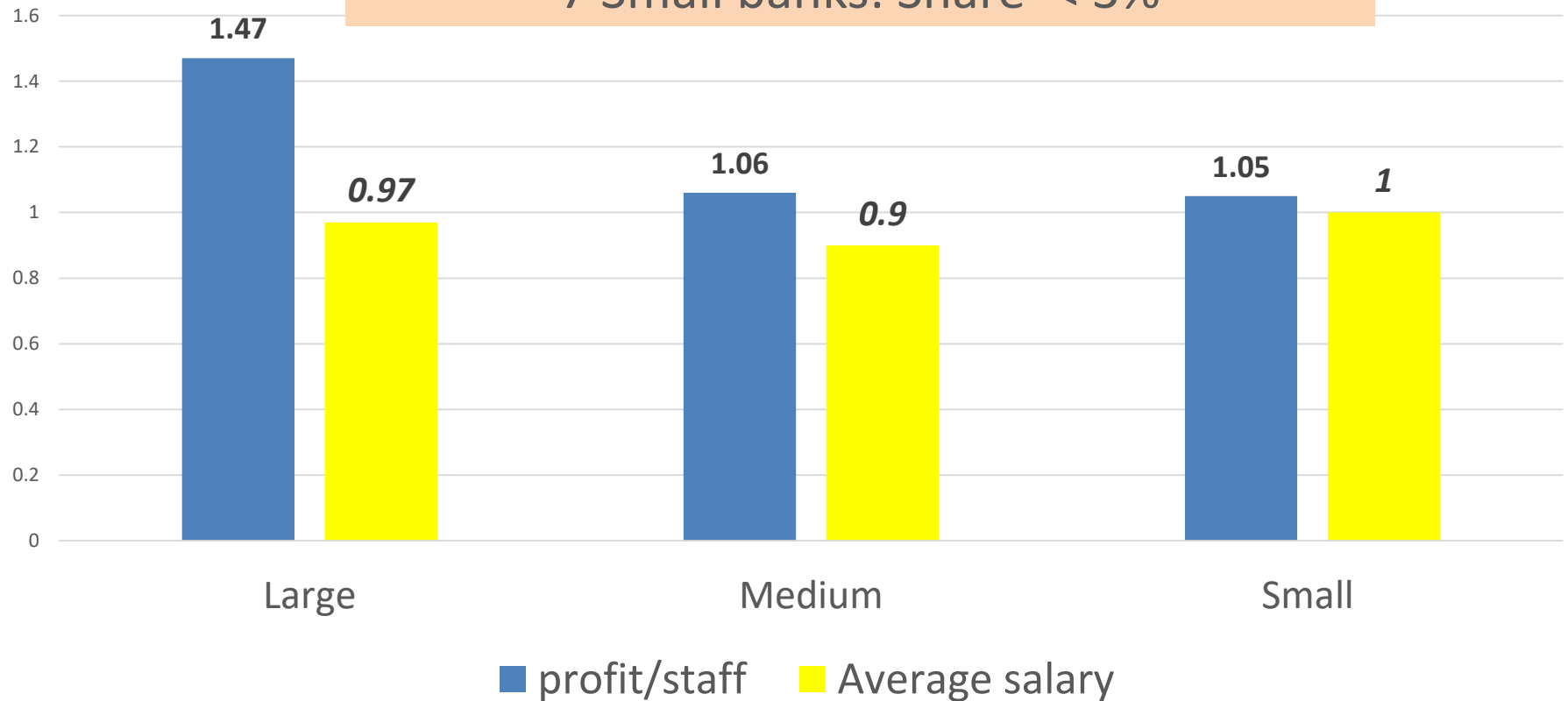


(2) Efficiency Ratio: Average Productivity  
Thai banks in 2016  
(million baht)

4 Large banks: Share (S) of Total Assets >10%

3 Medium banks: 3% < Share <10%

7 Small banks: Share < 3%



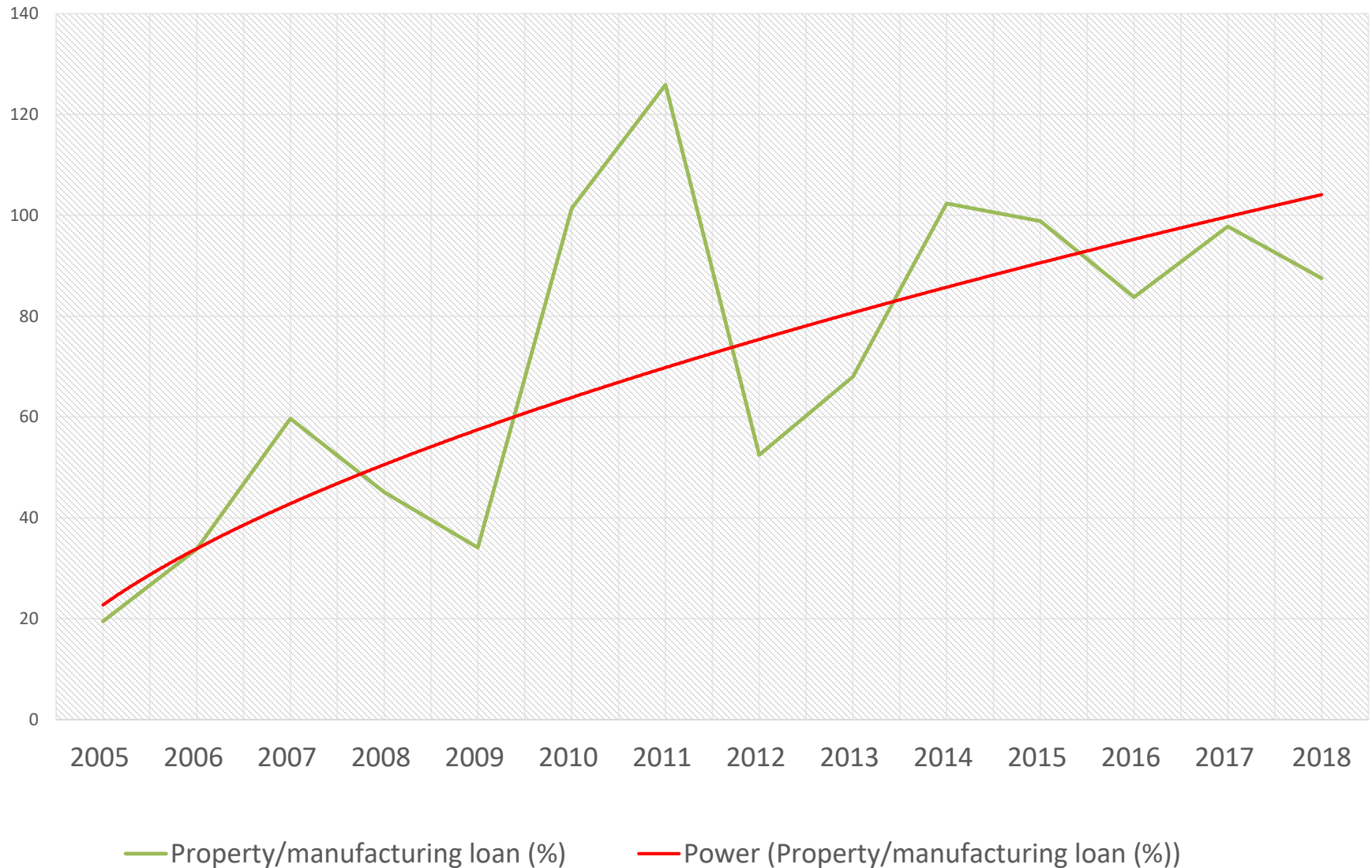
## (3) Solvency: Quality of Bank Assets and NPLs

- 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 ).

## How high is the probability to recover the principal or foreclose the collaterals?

- Once a loan is considered nonperforming, banks may have the opportunity to recover the principal:
- In particular, loans backed by specific assets, such as 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, such as with a vehicle.

# Rising trend of credit allocated to the property (non-traded) sector vis-à-vis manufacture (traded) sector



# 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**.

# Pace hopes to emerge from massive debts

On the average, 84 million Baht a unit at Thailand's highest building: Maha Nakhon

The skyscraper effect

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.



The Intuitively simple concept of the skyscraper effect is related to the **Austrian Business Cycle Theory** (Friedrick 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*. (e.g. Bangkok One, mixed uses and all that)
- Third, low interest rates provide investment to *construction technologies* that enable developers to break earlier records of tallest buildings.
- All three factors peak at the end of the growth period
- This is precisely why banks need to have ***strong capital fund to cushion any disruption*** caused by recession.

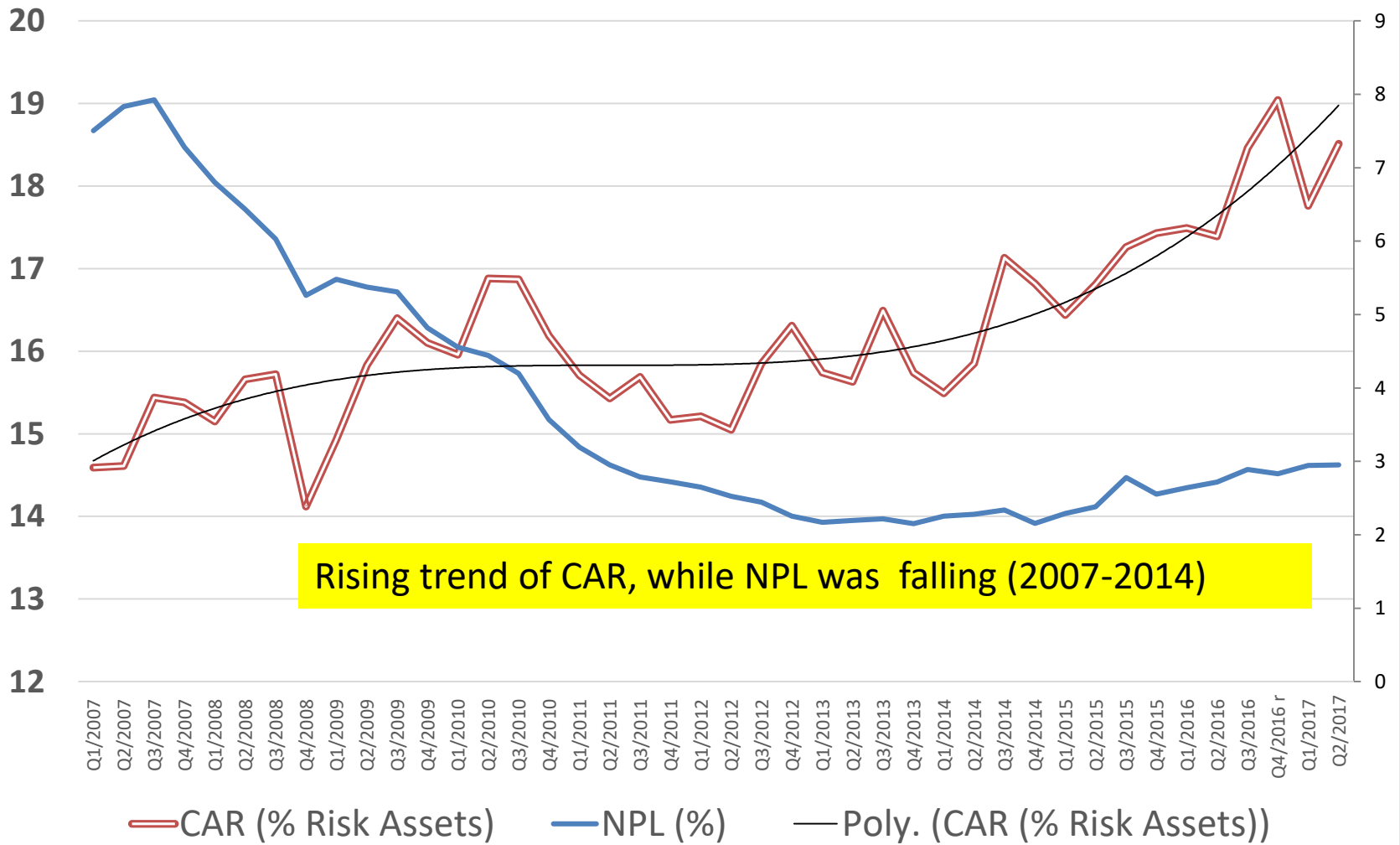
# Capital Adequacy

- Equity (E) + Liabilities (L) = Assets (A)
- Liabilities = Deposits + Borrowings
- If borrowing is in dollar, a massive devaluation would make net equity negative: technical bankruptcy
- Net Equity = Assets – Liabilities
- When Assets (loans) turn into NPLs or bad loans, Net Equity can become negative as value of asset declines.

# Capital Adequacy Ratio: (Equity/Risk Assets)

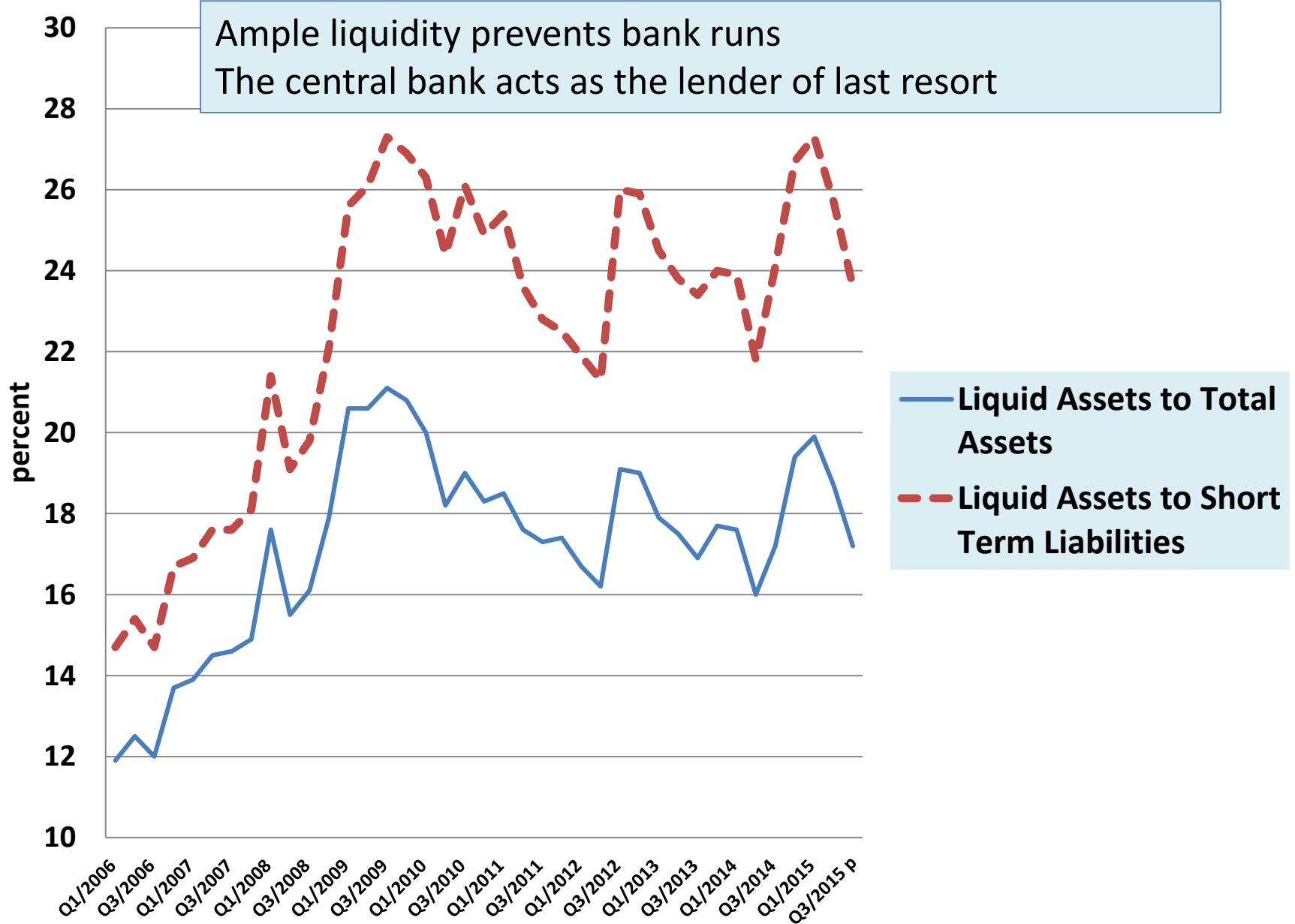
- When writing off bad assets, equity (E) must be written off at the same time.
- If bank equity is not large enough, net equity can become negative (banks are technically bankrupt).
- The higher ***the ratio of equity to risk assets***, the safer the deposits when banks have troubles with bad lending.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

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



Rising trend of CAR, while NPL was falling (2007-2014)

## (4) Liquidity



# Sufficient liquidity can stop bank run

- Despite negative equity, which is 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.*”

## Basil III: A Rule Change

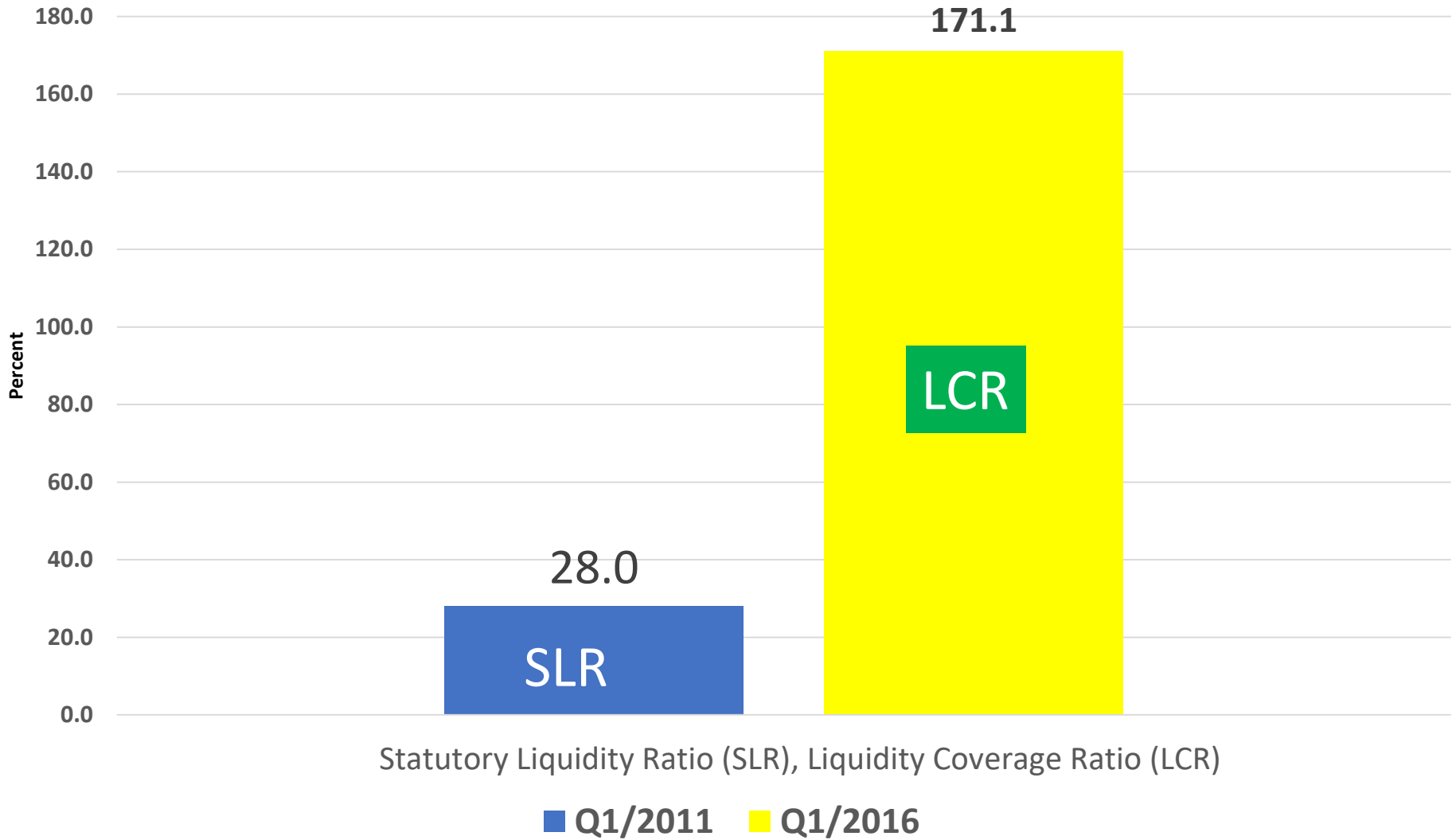
### From legal reserve (liquidity ratio) to LCR

- 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 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.

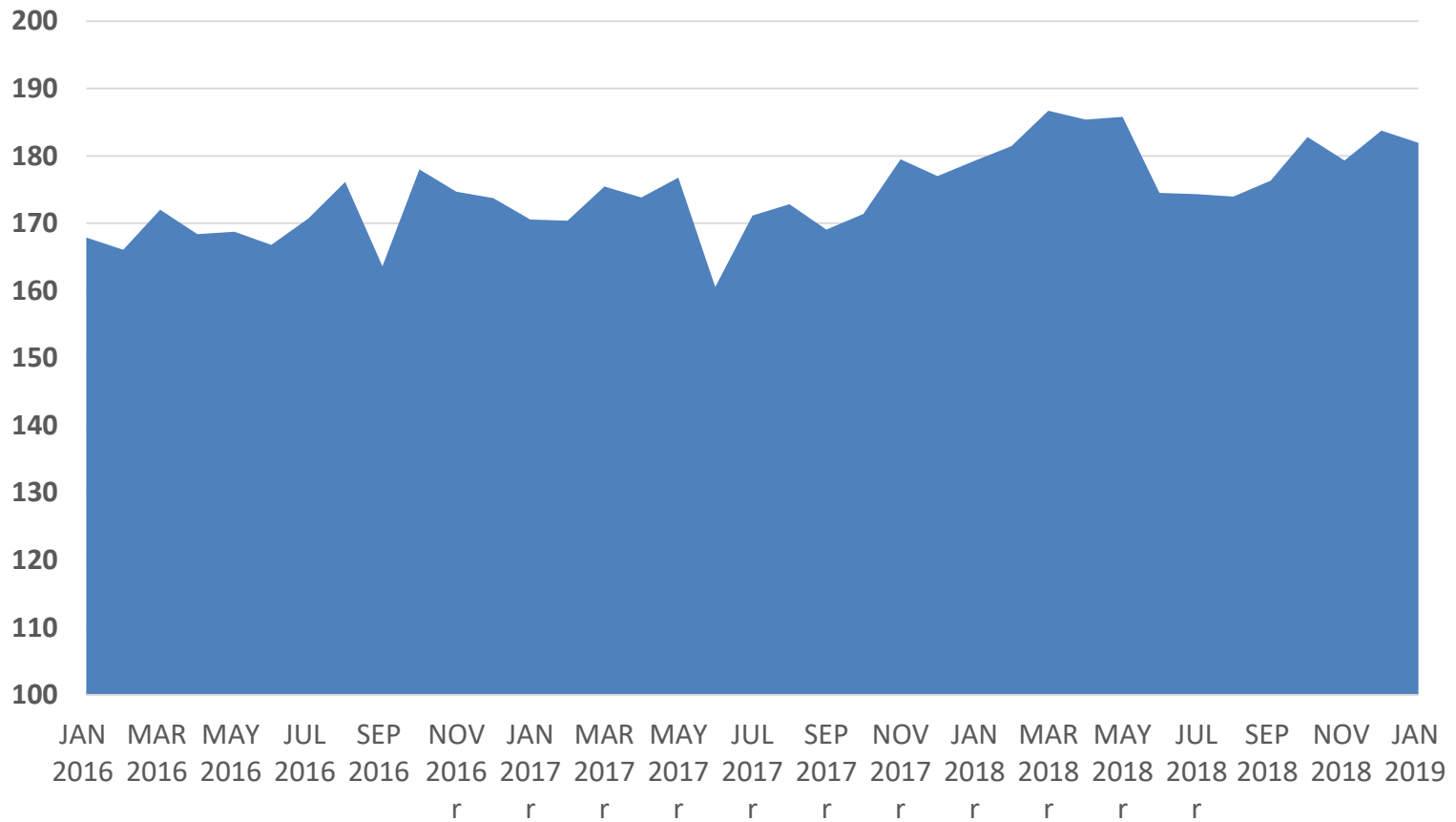
# LCR must be above 100%

- 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



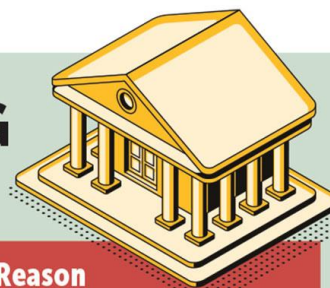
# Banks deal with multi whammy



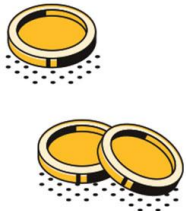





*Pandemic adds to sector's woes*

6 APR 2020

- "We have changed the outlook for Thailand's banking system to negative from positive," said **Moody's Investors Service**.
- "The operating environment for the country's banks will deteriorate in the next 12-18 months due to disruptions from the coronavirus outbreak, and this will lead to a weakening of banks' asset quality and profitability.
- Yet banks' strong capital and liquidity, as well as government support for the broader economy, will provide a buffer against growing risks."

# KEY DRIVERS OF THAI BANKING SYSTEM'S NEGATIVE OUTLOOK



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

# BoT response to pandemics: A new guideline

- Effective from April 1, all lenders comprising commercial banks, specialized financial institutions and non-bank and leasing companies are required to comply with the central bank's guidelines covering *six types of loan product* including credit card, personal loans and car title loans, auto and motorcycle loans, machinery leasing, mortgages and SME, nanofinance and microfinance loans.
- The bank has also prepared two options in case that the Covid-19 contagion still cannot be contained after the deferment period is lapsed in June.

# Three-month grace period and two year defer payments on principal

- Both options are an *extension of the grace period* for another three months, and a two-year deferment on principal to be applied on a case-by-case basis.
- Whether the *three-month deferment* period will be extended depends on the central bank's policy.
- For the two-year principal payment deferment proposal, the bank *will let borrowers pay only a half of interest that they are charged*.
- GSB has 15,000 SME loan debtors with a total lending portfolio of 120 billion baht.
- GSB's NPLs for SME and housing loans are 4% and 3% of each product's total lending, respectively.

# 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, said Don Nakornthab, senior director for the economic and policy department at the Bank of Thailand.
- Banks have a sufficient capital buffer in the event of higher past-due payments and debt restructuring, he said.
- 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.

# The BoT stands by to help

- The NPL coverage ratio was stable at 149.9% at the end of last year, and the liquidity coverage ratio remained high at 187.5%.
- Debt burden is the main concern among people in this difficult situation
- The central bank is ready to implement additional measures to ease the financial burden of virus-affected borrowers and it wants these debtors to access the financial assistance rapidly.

# Further BoTs measure

- The central bank halve the rate that financial institutions must contribute to the FIDF from 0.46% of the deposit base to 0.23%, for two years to *encourage financial institutions to immediately pass on cost savings* by reducing their lending rates to alleviate the financial burden of virus-affected debtors.
- Commercial banks respond accordingly.

# Big banks cut rates by 40 basis points

9 APR 2020

- KBank's minimum lending rate (MLR) is reduced to **5.60%** from 6%, the minimum overdraft rate (MOR) to 6.22% from 6.62% and the minimum retail rate (MRR) to 6.10% from 6.50%.
- The bank's deposits rates will remain unchanged.
- Implications on the bank performance?

# Key words

1. Bank-based economy
2. Dichotomy
3. Creative accounting
4. Panama papers
- 5. *Frederic Von Hayek***
6. The skyscraper effect
8. Capital Adequacy Ratio
7. Liquidity vs Loan Coverage Ratio
8. Bank responses to the pandemics