Thailand's financial sector

Bhanupong

Lecture 23

Mark Twain

- “It ain't what you don't know that gets you into trouble.
- It's what you know for sure that just ain't so.”

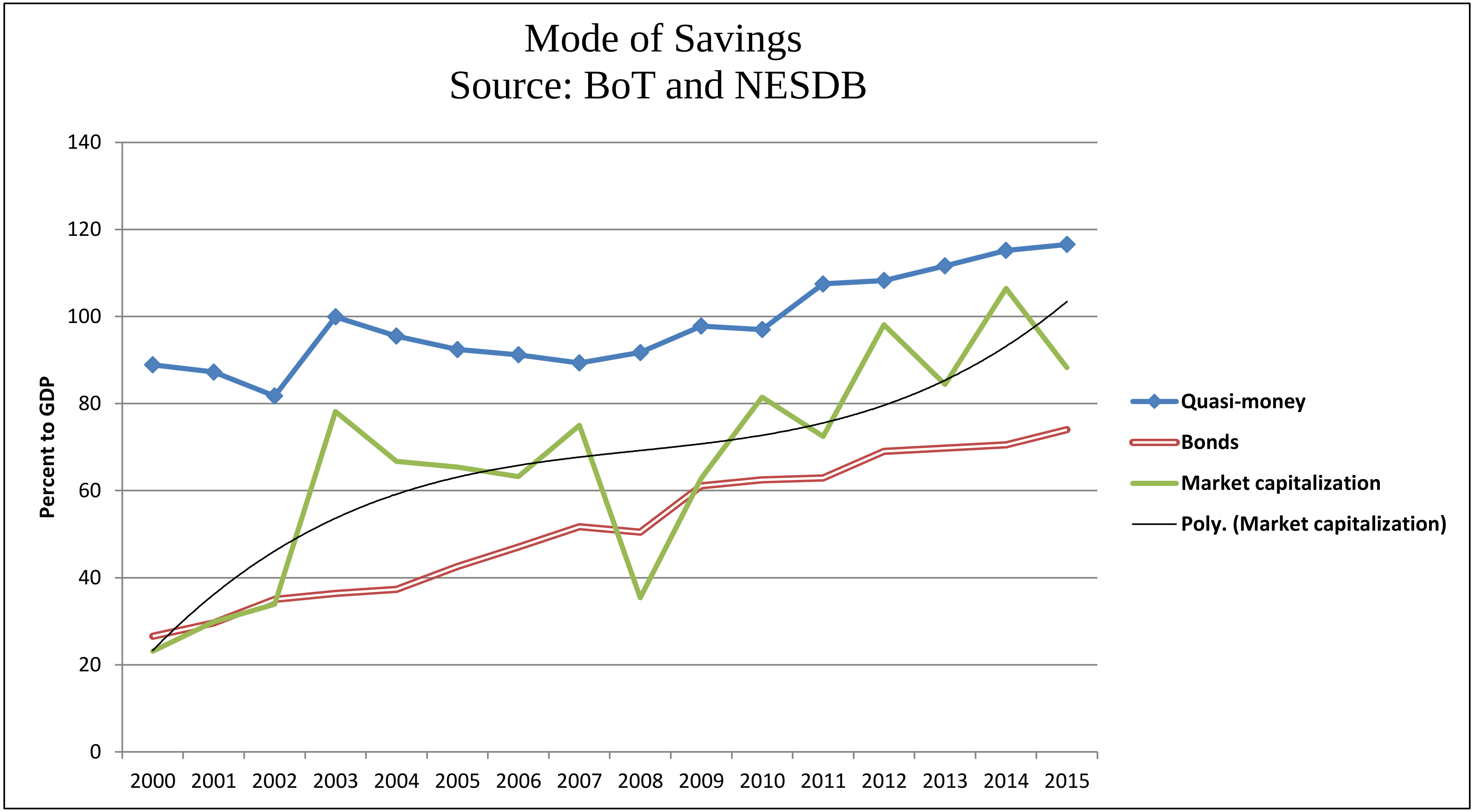
Course Syllabus
Lecture 23: Financial Sector

- Performance of financial institutions is examined. Thai financial sector has emerged from the 1998 crisis become stronger and resilient, thanks to foreign capital injection, good governance, and strengthened financial regulations.
- What are 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?

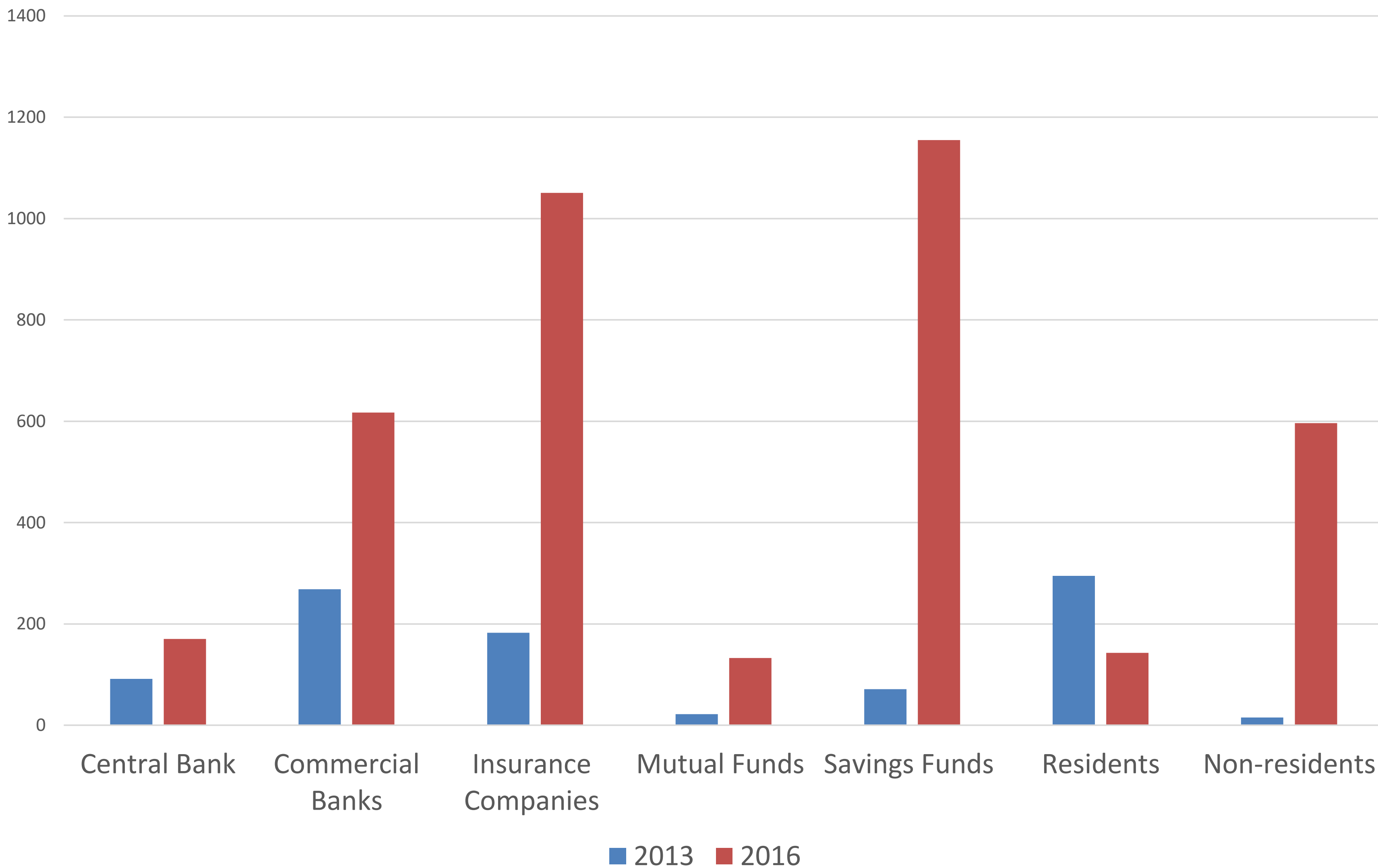
Outline

1. Modes of savings and financing:
2. Stock market and commercial banks
3. Good and bad bankers
4. Resilience of the Thai banks
5. Foreign ownership and capital injection
6. Profitability, efficiency, liquidity and solvency

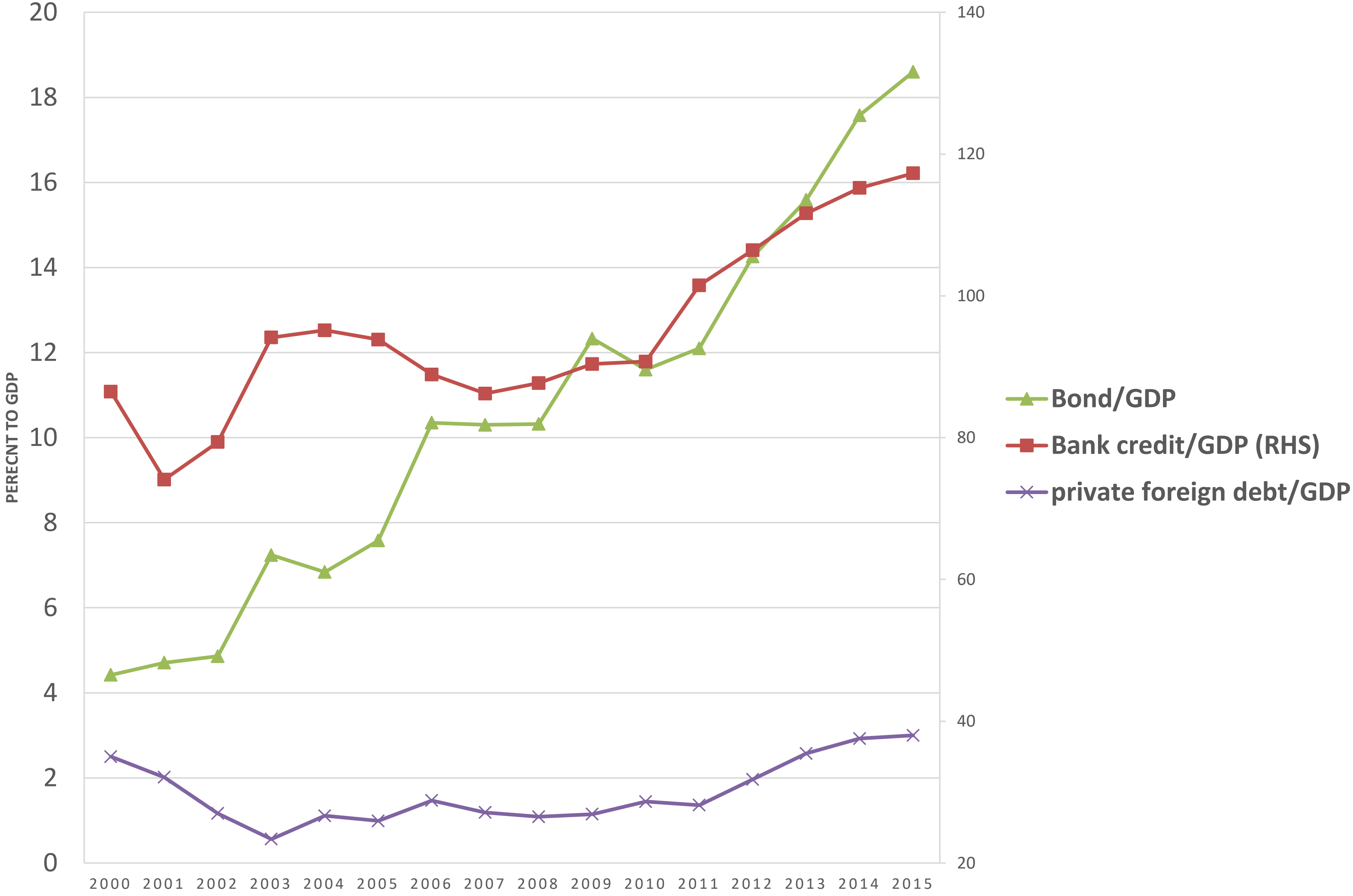
1. Mode of Savings



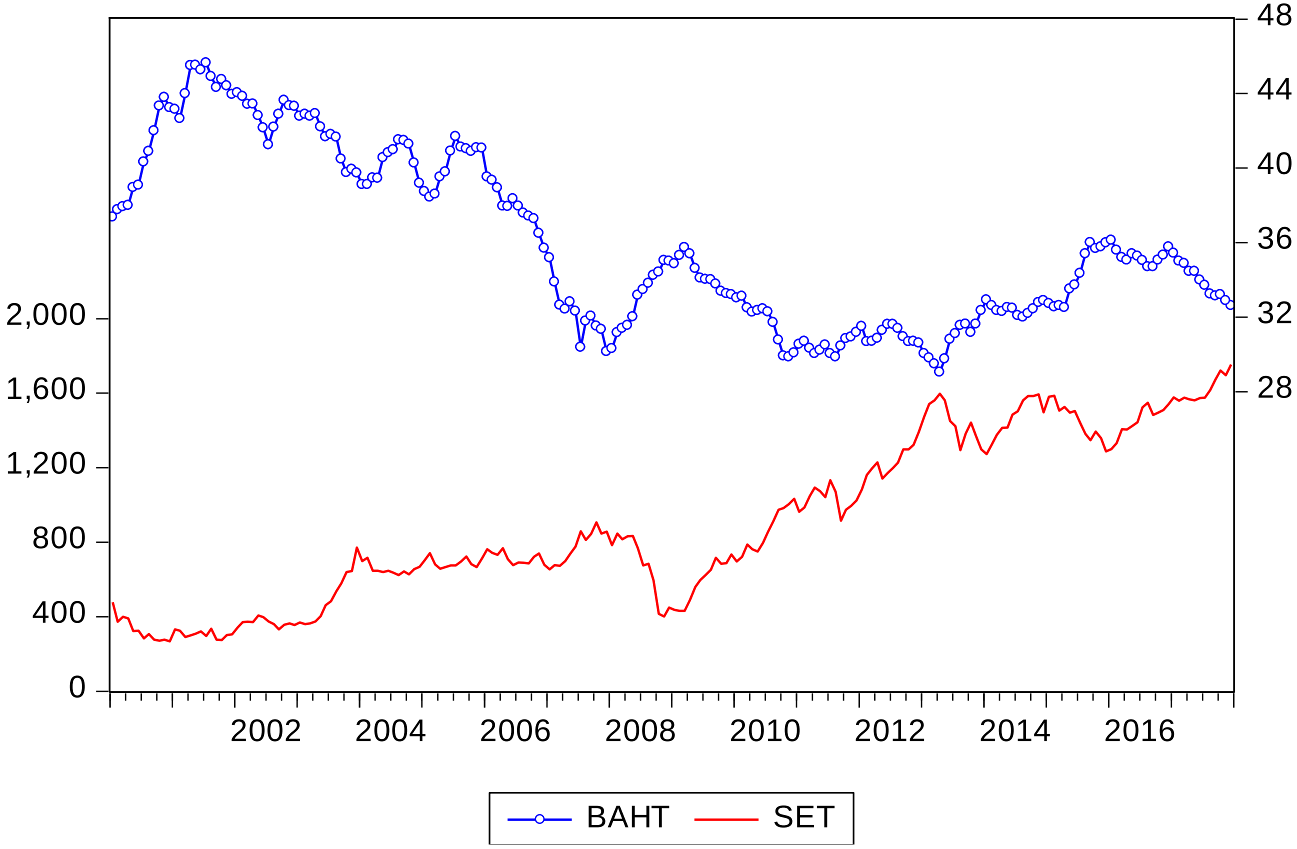
Profile of Thai government bonds' holders billion baht



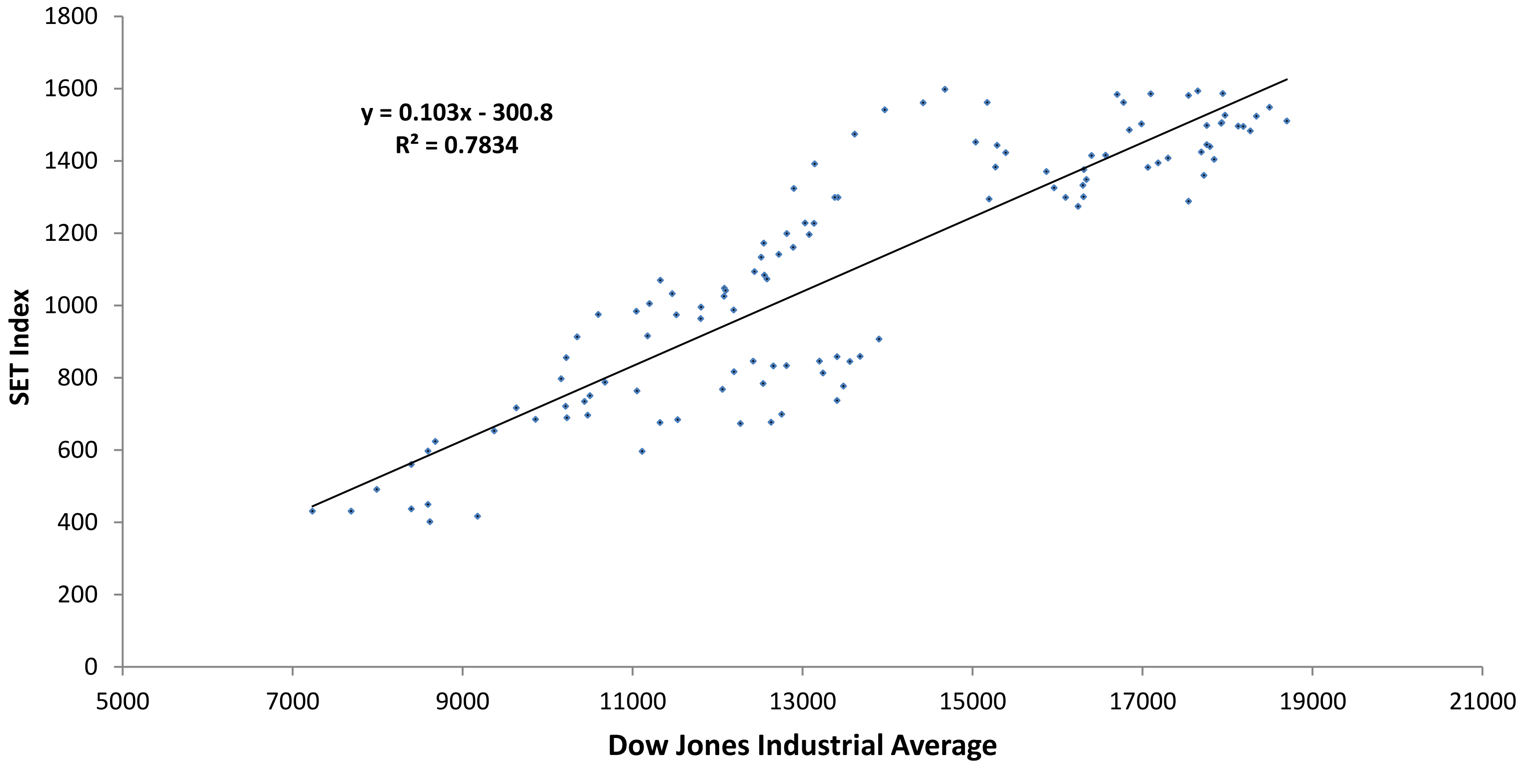
Mode of Financing
Source: Bank of Thailand and Stock Exchange of Thailand



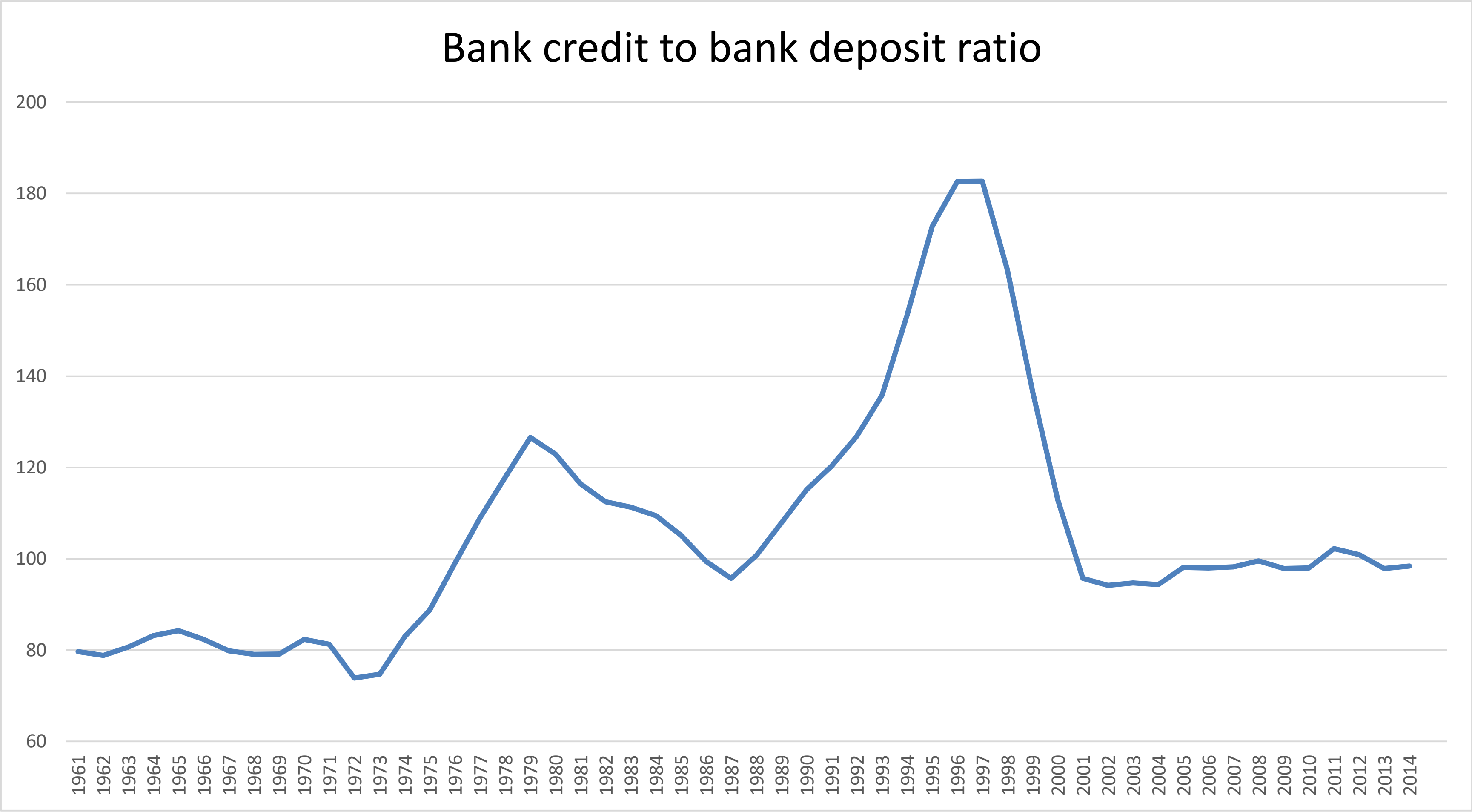
Stock Price Index and Baht/USD



SET and DJIA
2007-2016
Source: Bank of Thailand and Federal Reserve Board



Financial Instability Hypothesis
Hyman Minsky



2. When good banks become bad banks: Four stages

- The quality of management is an important difference between sound and unsound banks.
- The better-managed banks succeed in remaining solvent.
- Roots of financial distress can be grouped under three headings: **macroeconomic conditions, industrial and financial policy, and debtor and credit behavior**.
- Four types of mismanagement commonly occur in the absence of effective regulation and supervision:

1. Technical mismanagement

- Inadequate credit analysis
- Political pressures
- Excessive risk concentration (Need Single lending limit regulation)
- Insider lending
- Mismatching assets and liabilities in terms of currencies, interest rates, or maturities

2. Cosmetic management

- Try to hide past and current losses:
- Bankers may keep dividends constant despite poor earrings.
- Retain smaller share of income for provisions against loss, thereby sacrificing capital adequacy.
- Resort to increase net profits on paper (even if more taxes must be paid)
- Classify bad loans as good so as to avoid making provisions.
- Recording income can be advanced and the recoding expenditure postponed.

3. Desperate management

When losses are too large to be concealed by accounting gimmicks.

- Lending to risky projects at higher loan rates
- Speculating in stock and real estate markets
- Greater risk may lead to further losses and cash flow problem.
- Offer 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 sometimes causes initial losses, but once illiquidity 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 is profitable, the bad banker will arrange to buy it from the bank at a low price, if the company is unprofitable, the banker will sell it to the bank at 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.

More recently, we heave learned about *Panama Papers*, which were the results of journalist investigations on offshore companies set up by Mossack Fonseca, a law firm in Panama.

3. The resilience of Thai banks

Abstract

- 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.

Banks in Southeast Asia after AFC

- Southeast Asian countries were well prepared as they underwent financial reform after the 1997 crisis.
- Prudential rules and regulations have been established before the eruption of the GFC.
- With low exposure to export sector, Southeast Asian commercial banks invested little in collateral debt obligations backed by the US subprime loans.
- Southeast Asian banks remain healthy and did not suffer from the GFC.

A vulnerable sector

- Since the 1997 financial crisis, the Thai economy has been **closely integrated** to the world economy through international trade and capital flows.
- As such, it cannot completely shield itself from external shocks. The global financial crisis during 2007–2009 led to 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.

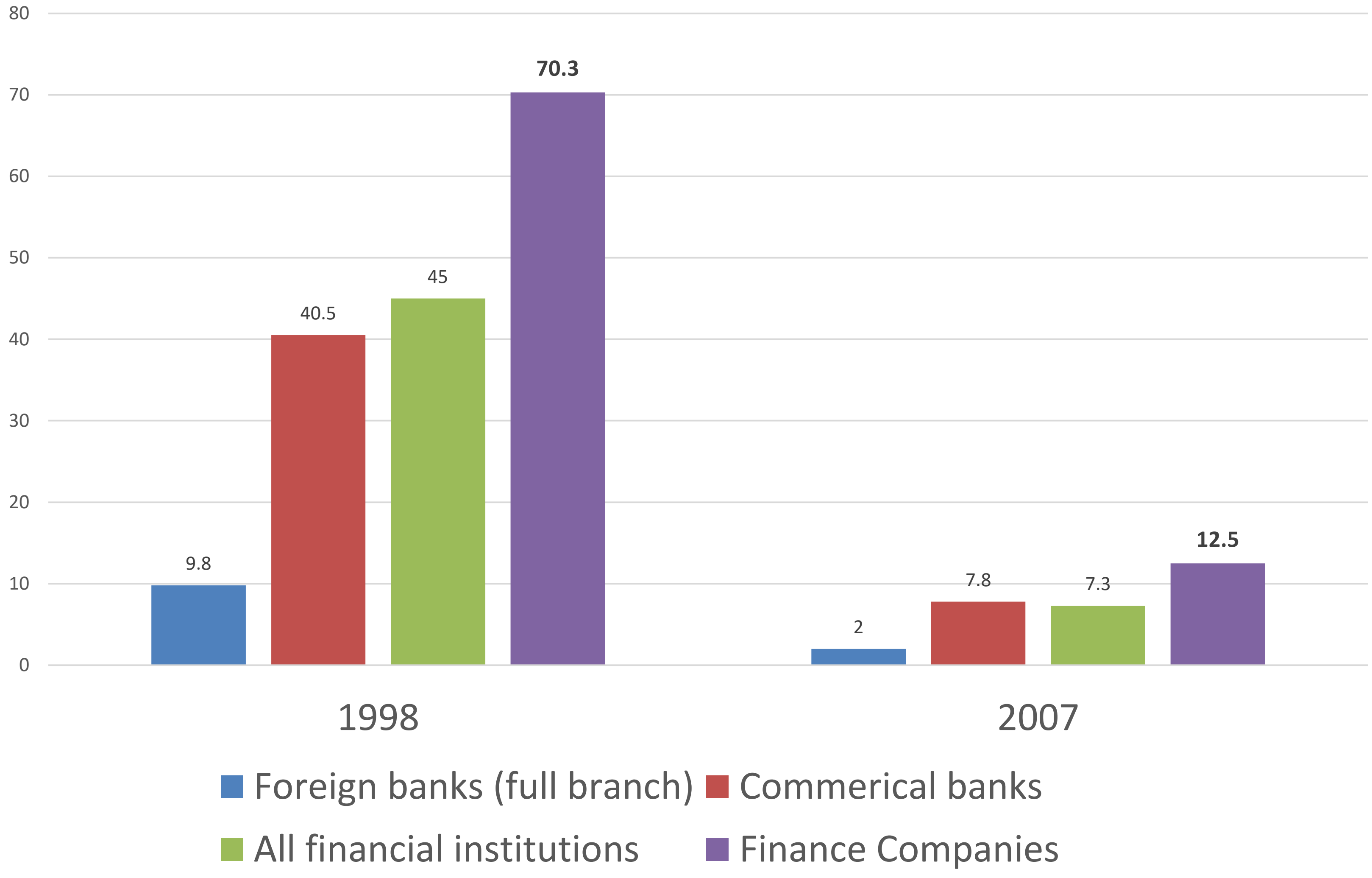
A blessing in disguise

- 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.

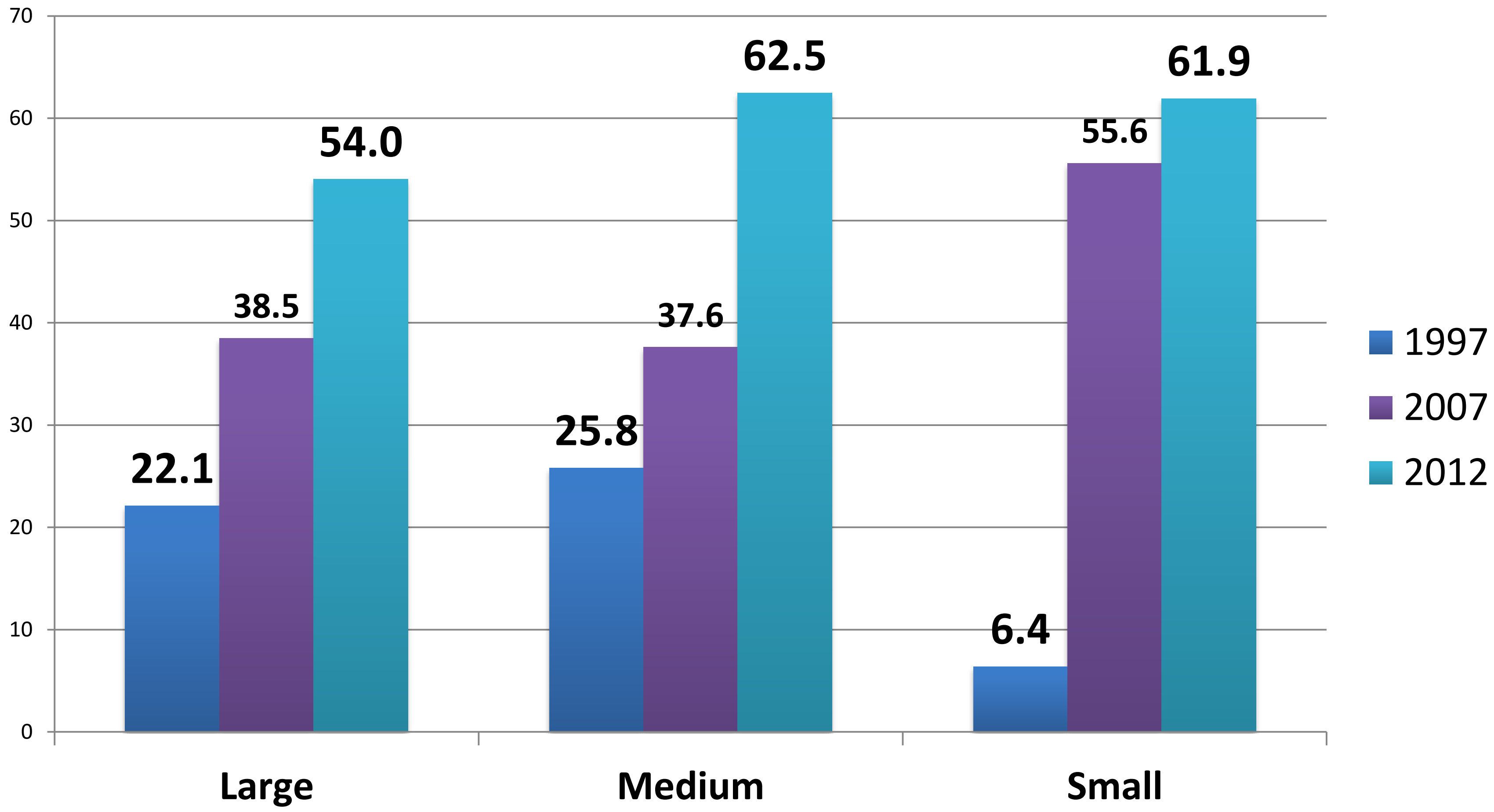
Resilient Thai banks

- The Thai financial sector has emerged from the 1998 crisis and become stronger and resilient, thanks to foreign capital injection, good governance, and strengthened financial rules.
- The rapid economic recovery, despite the political turmoil in 2010, provided opportunities for banks to expand their credit and enjoy the benefits from rising interest rates.
- Strong performance of the corporate sector enabled banks to reduce **Non Performing Loans (NPL)** further.

NPLs: Ten years after AFC



Foreign ownership in Thai banks (% total equity)



Benefits and costs of foreign participation

- 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.
- With foreign capital injection, monetary authorities can maintain system solvency while lessening the burden of financial bailouts.

Foreign banks’ participation or invasion?

- With foreign capital injection, the monetary authorities can maintain system solvency while lessening the burden on financial bailouts.
- Financial restructuring cannot be achieved without allowing foreign participation or acquiring shares of less efficient public-owned financial institutions.

Vulnerable Thai banks

- 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.

Minimal impact of the GFC

- The adverse consequence on the Thai banking sector was minimal.
- Thai banks were able to make profits during difficult times.
- Most of them did not invest in CDOs nor focus mainly on property lending.
- The level of NPLs continued to decline, while banks enhanced capital strength and provided sufficient loan-loss provisions.

Be ready 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.

When are banks too big to fail?

- 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.
- 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

(1) Profitability (ROE, ROA) and Efficiency

Return on Equity and Assets depends on, among others, interest margins, NPLs, and loan growth rate.

(2) Liquidity (Liquid assets to short term liabilities)

(3) Solvency--Capital adequacy (Capital Adequacy Ratio)

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 lost provision and bad debt write-off.
- Banks exploit ***economies of scale and*** scope to ***reduce the cost*** of providing services.

A measurement of efficiency

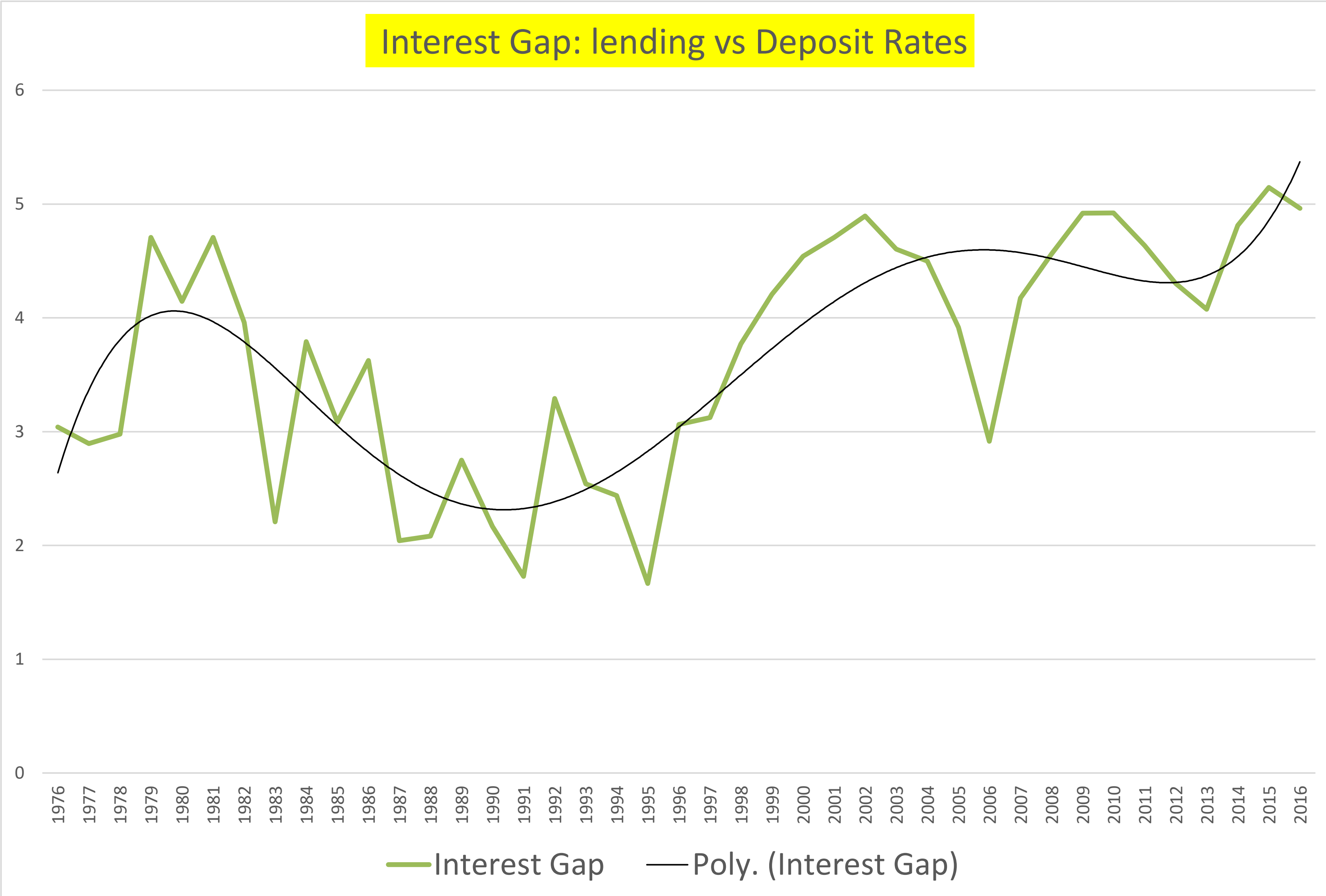
- The large interest margin between lending and deposit rates bodes well for the monopoly rent of commercial banks.
- The transfer of wealth from consumers to banks can be reduced by allowing foreign entry in line with liberalization of the services sector.

Profit and interest spread

- The large interest spread 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 via allowing foreign entry in line with liberalization of the service sectors.

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.



Interest Gap: lending vs Deposit Rates
6
5
4
3
2
1
0
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
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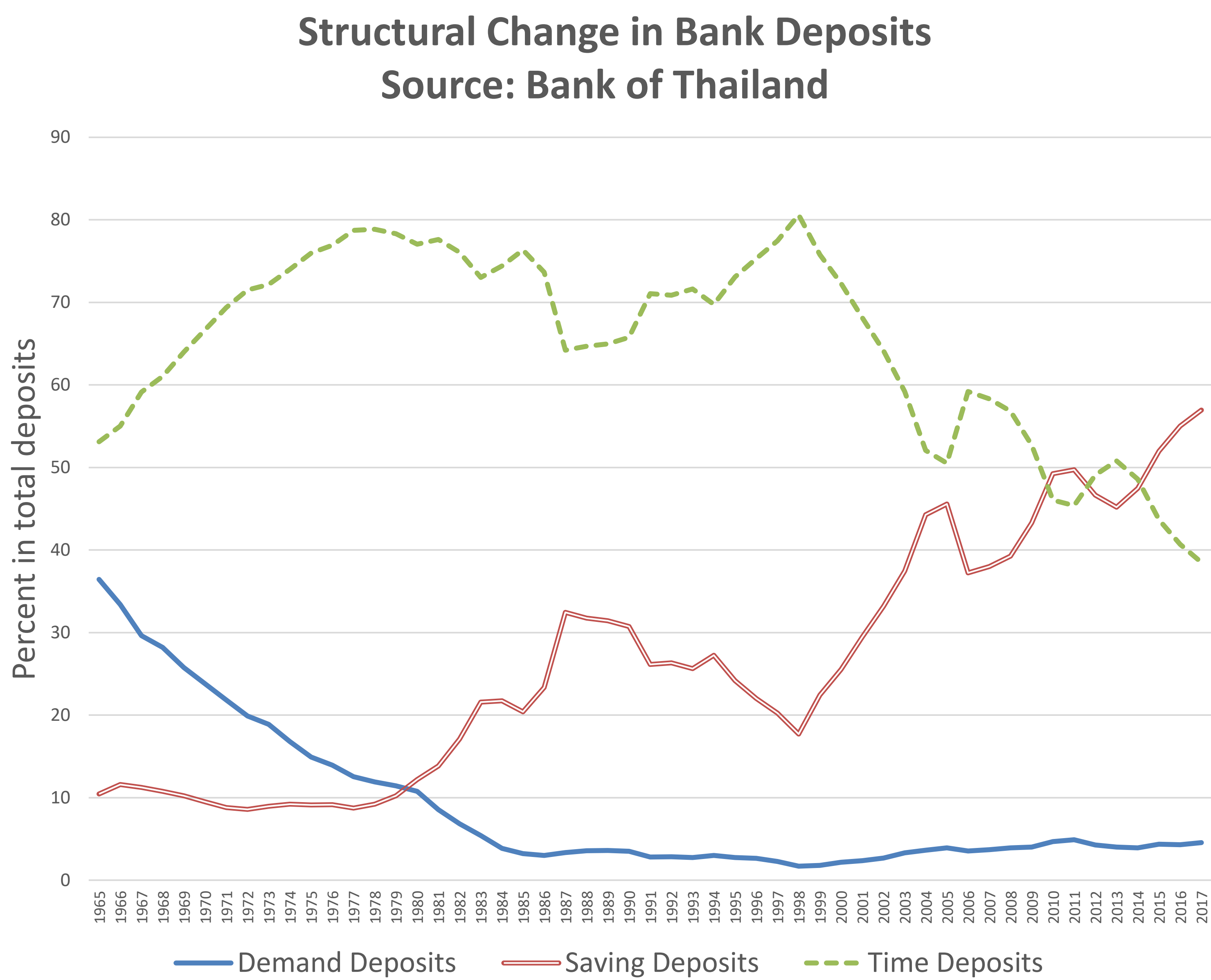
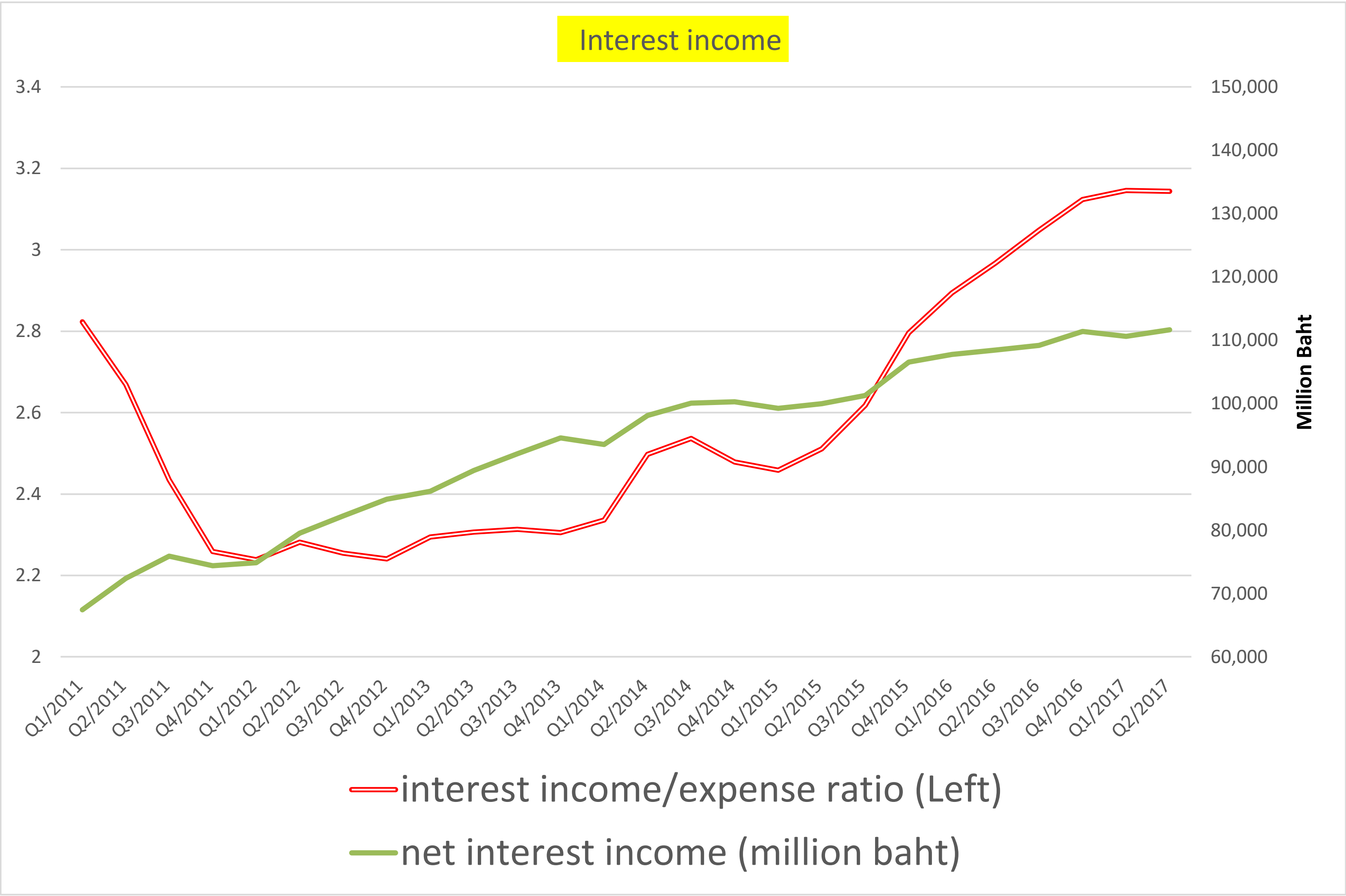
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Interest Gap
Poly. (Interest Gap)



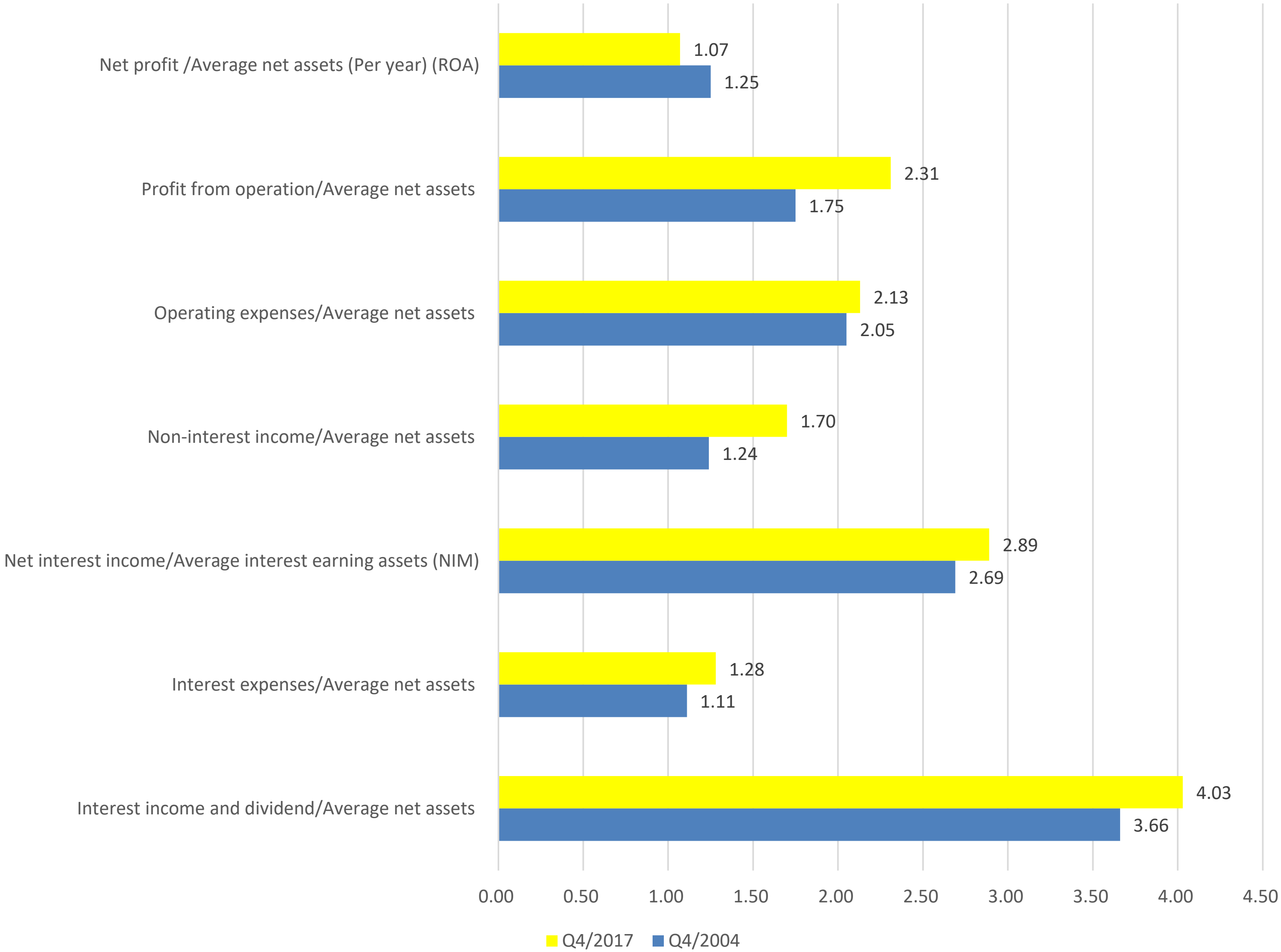
Structural Change in Bank Deposits
Source: Bank of Thailand
Percent in total deposits
90
80
70
60
50
40
30
20
10
0
1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Demand Deposits
Saving Deposits
Time Deposits

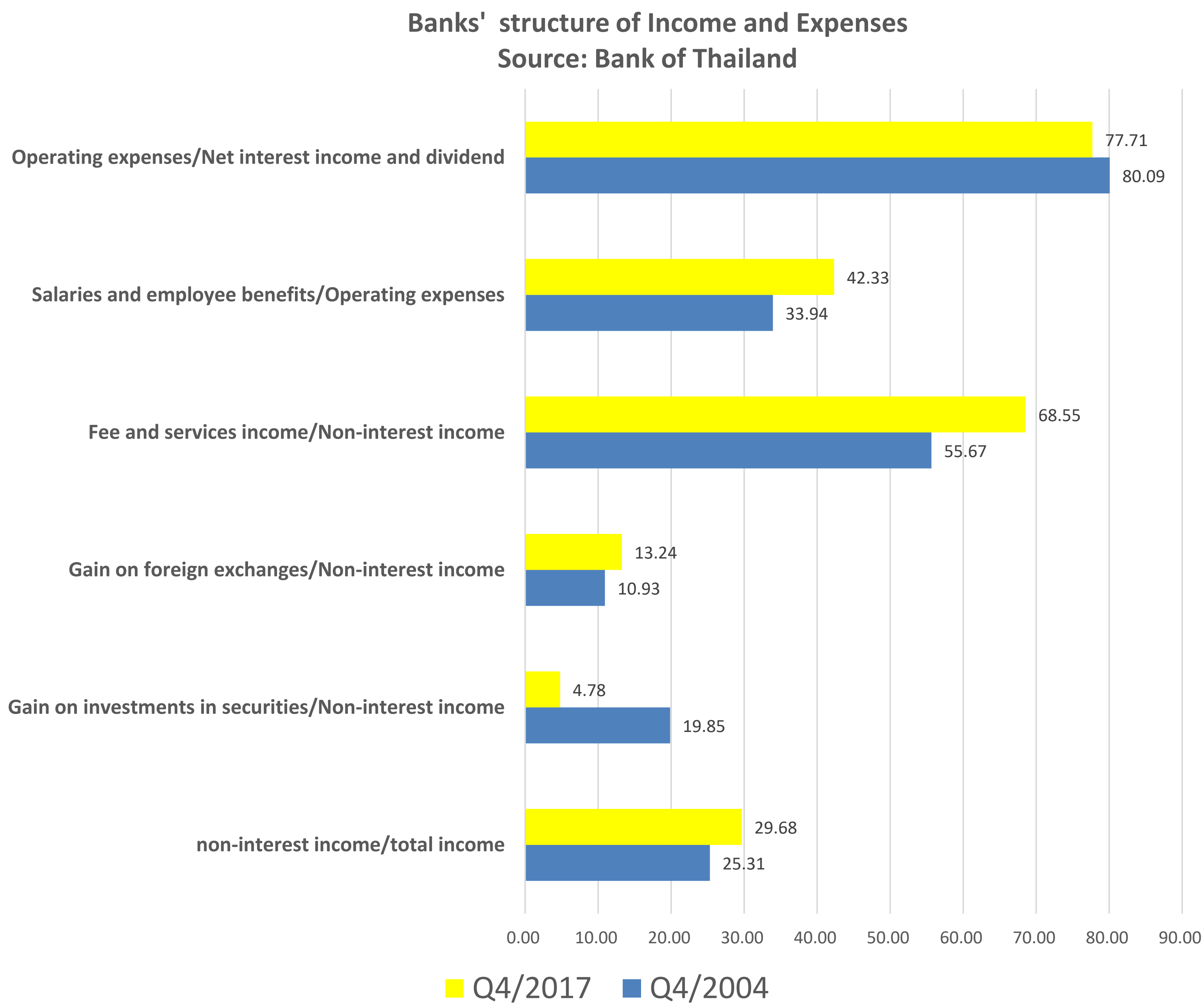
Interest income rises steadily despite the slowdown of loan growth, thanks to widening interest gap.



Bank Profitability

Source: Bank of Thailand





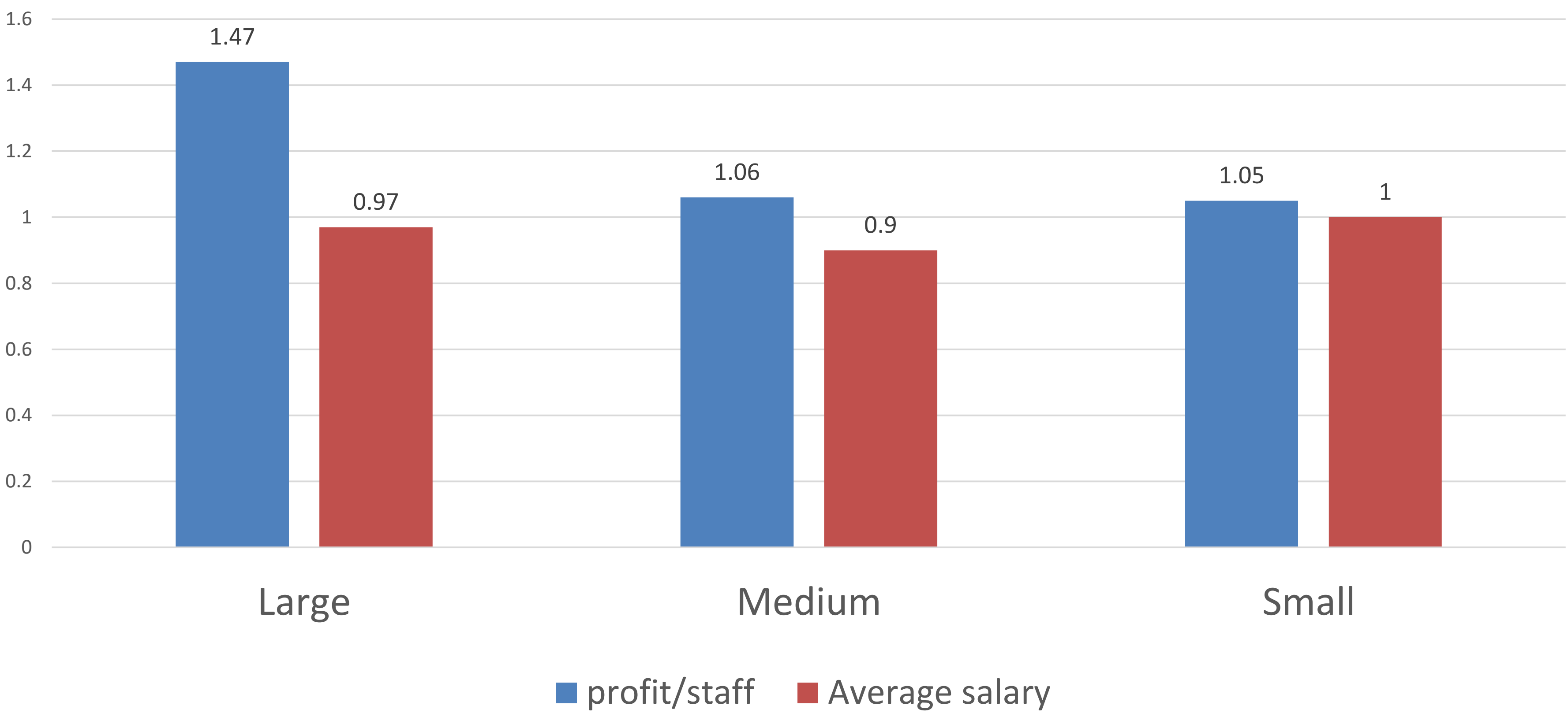
Banks' structure of Income and Expenses
Source: Bank of Thailand
Operating expenses/Net interest income and dividend
77.71
80.09
Salaries and employee benefits/Operating expenses
42.33
33.94
Fee and services income/Non-interest income
68.55
55.67
Gain on foreign exchanges/Non-interest income
13.24
10.93
Gain on investments in securities/Non-interest income
4.78
19.85
non-interest income/total income
29.68
25.31
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
Q4/2017
Q4/2004

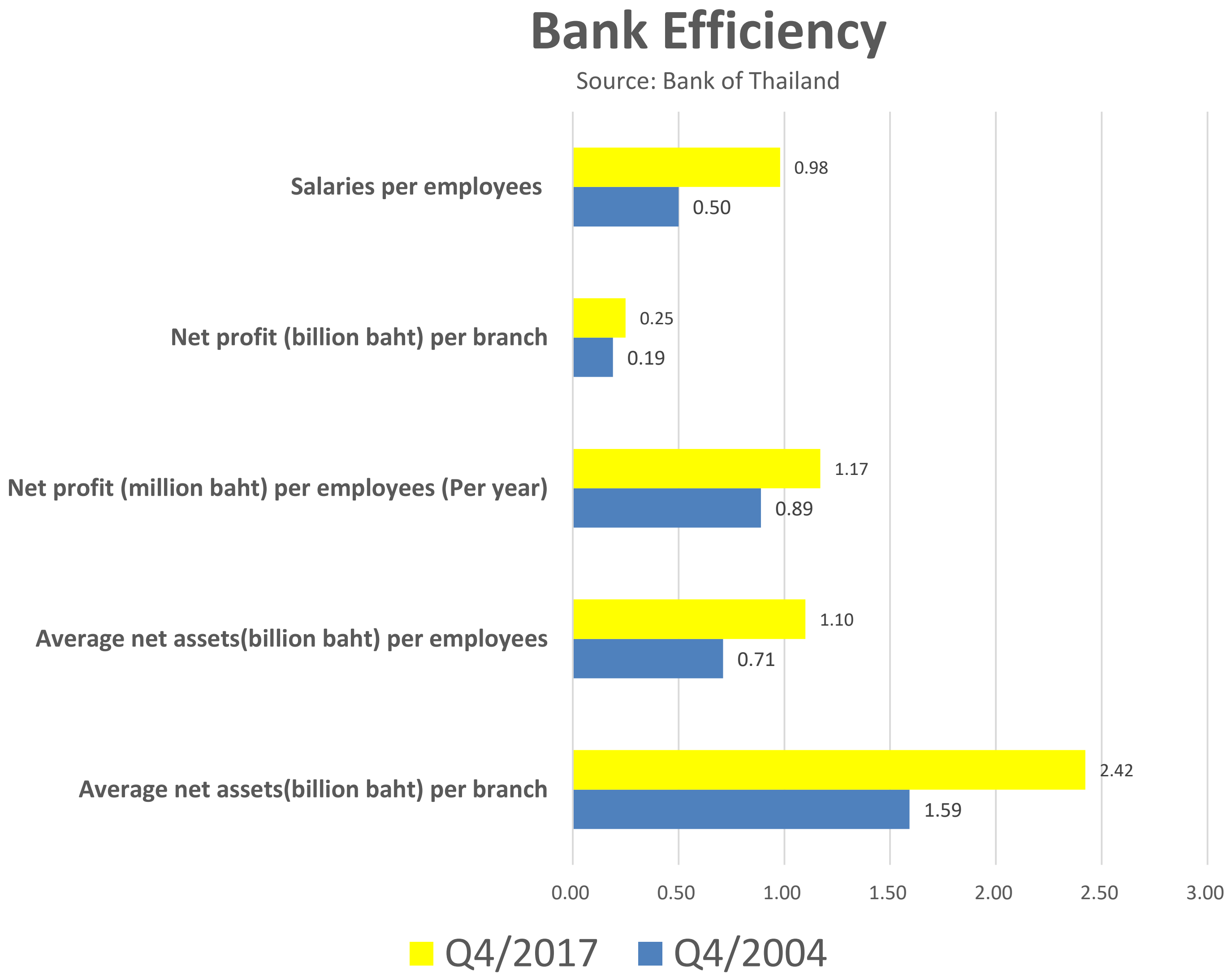
Efficiency Ratio of Thai banks in 2016 (million baht)

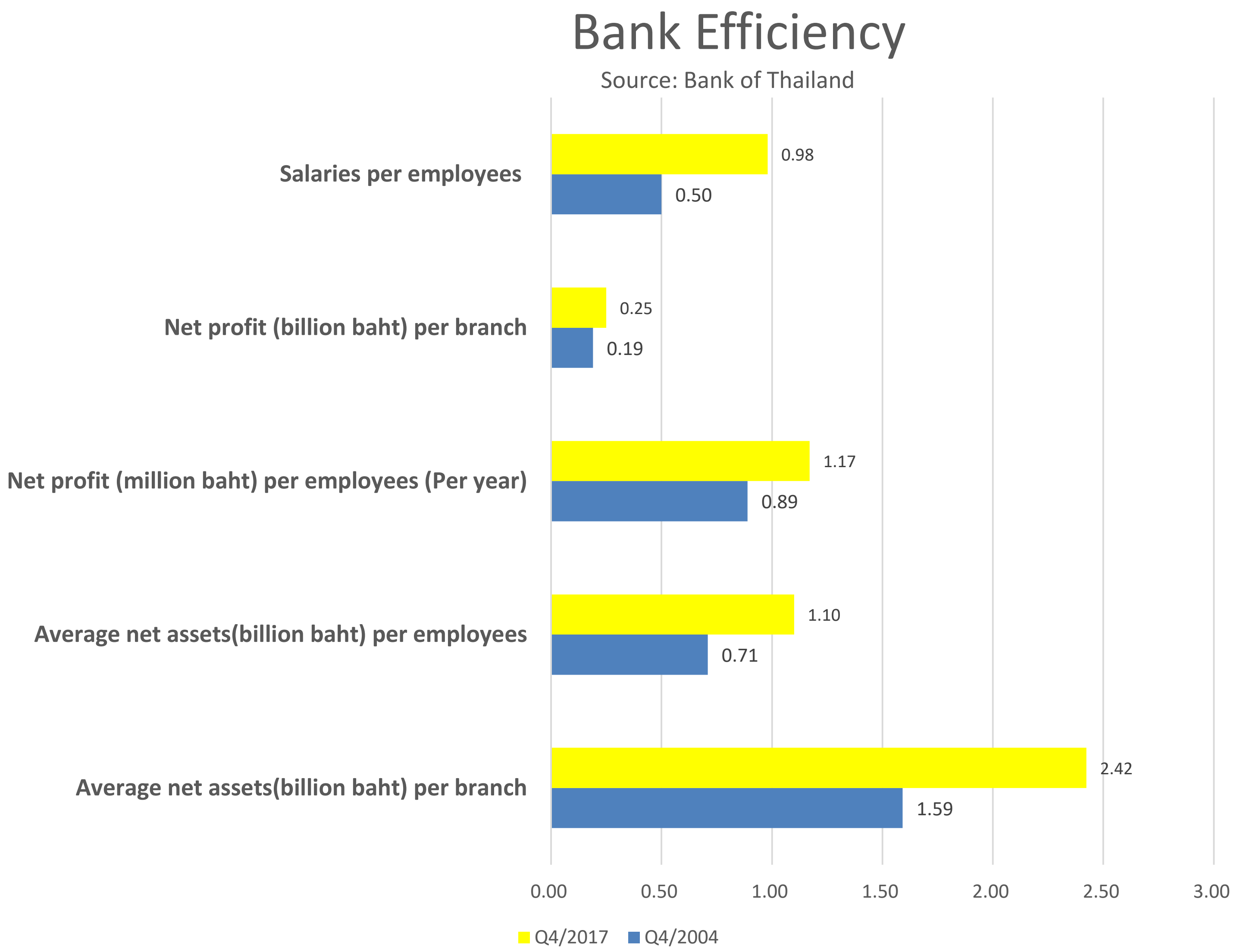
4 Large banks: Share (S) of Total Assets >10%

3 Medium banks: 3% < Share <10%

7 Small banks: Share < 3%




Bank Efficiency
Source: Bank of Thailand
Salaries per employees
0.98
0.50
Net profit (billion baht) per branch
0.25
0.19
Net profit (million baht) per employees (Per year)
1.17
0.89
Average net assets(billion baht) per employees
1.10
0.71
Average net assets(billion baht) per branch
2.42
1.59
0.00
0.50
1.00
1.50
2.00
2.50
3.00
Q4/2017
Q4/2004


Bank Efficiency
Source: Bank of Thailand
Salaries per employees
Net profit (billion baht) per branch
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Average net assets(billion baht) per employees
Average net assets(billion baht) per branch
0.98
0.50
0.25
0.19
1.17
0.89
1.10
0.71
2.42
1.59
0.00
0.50
1.00
1.50
2.00
2.50
3.00
Q4/2017
Q4/2004

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

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

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

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

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.

Asset back loans and foreclosure

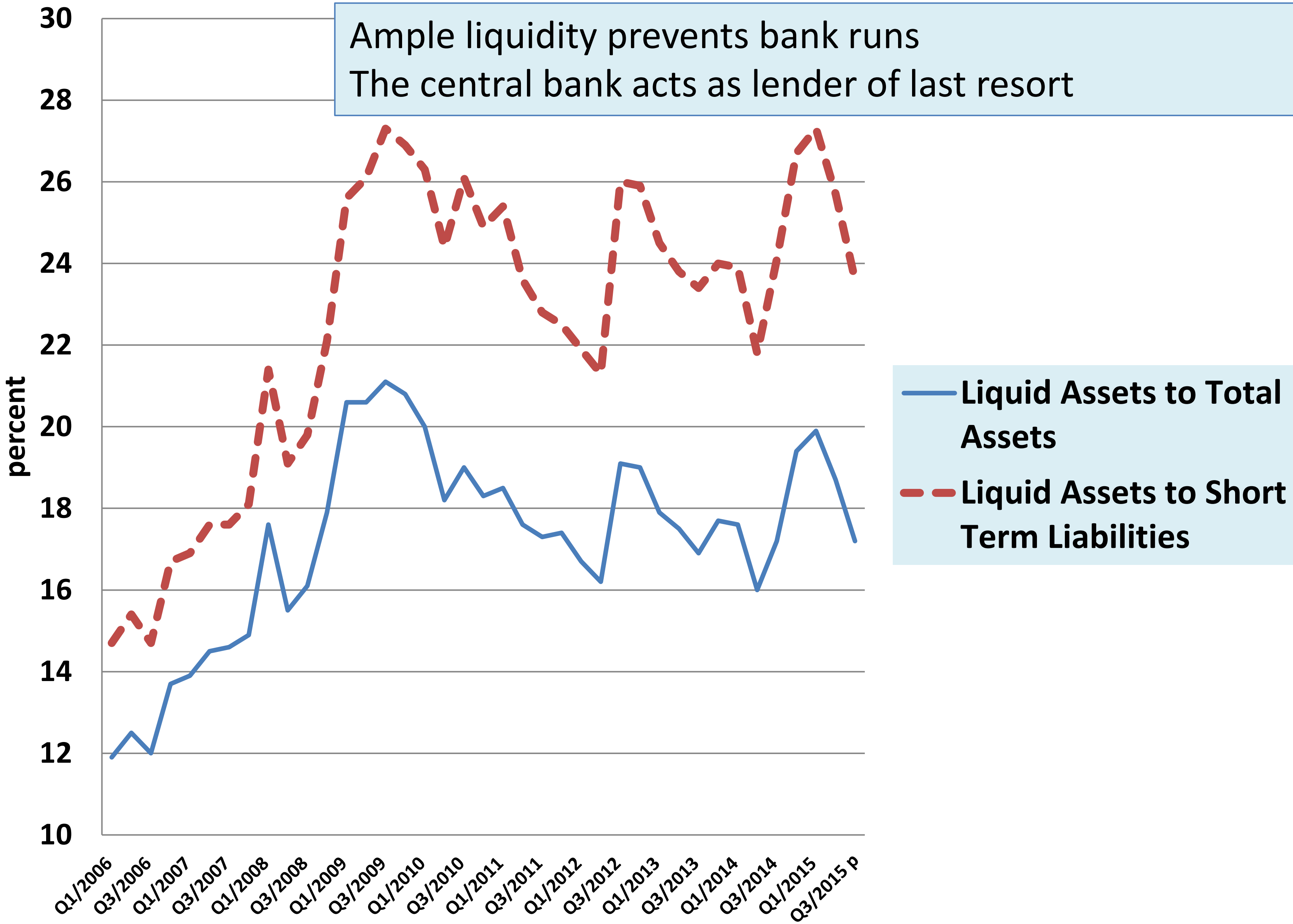
- Once a loan is considered nonperforming, lenders may have the opportunity to attempt to recover the principal.
- This especially applies to loans backed by specific assets, such as a home loan or vehicle loan.
- In these instances, the lender may begin the process of foreclosure, on a home, or move to seize the property, such as with a vehicle.

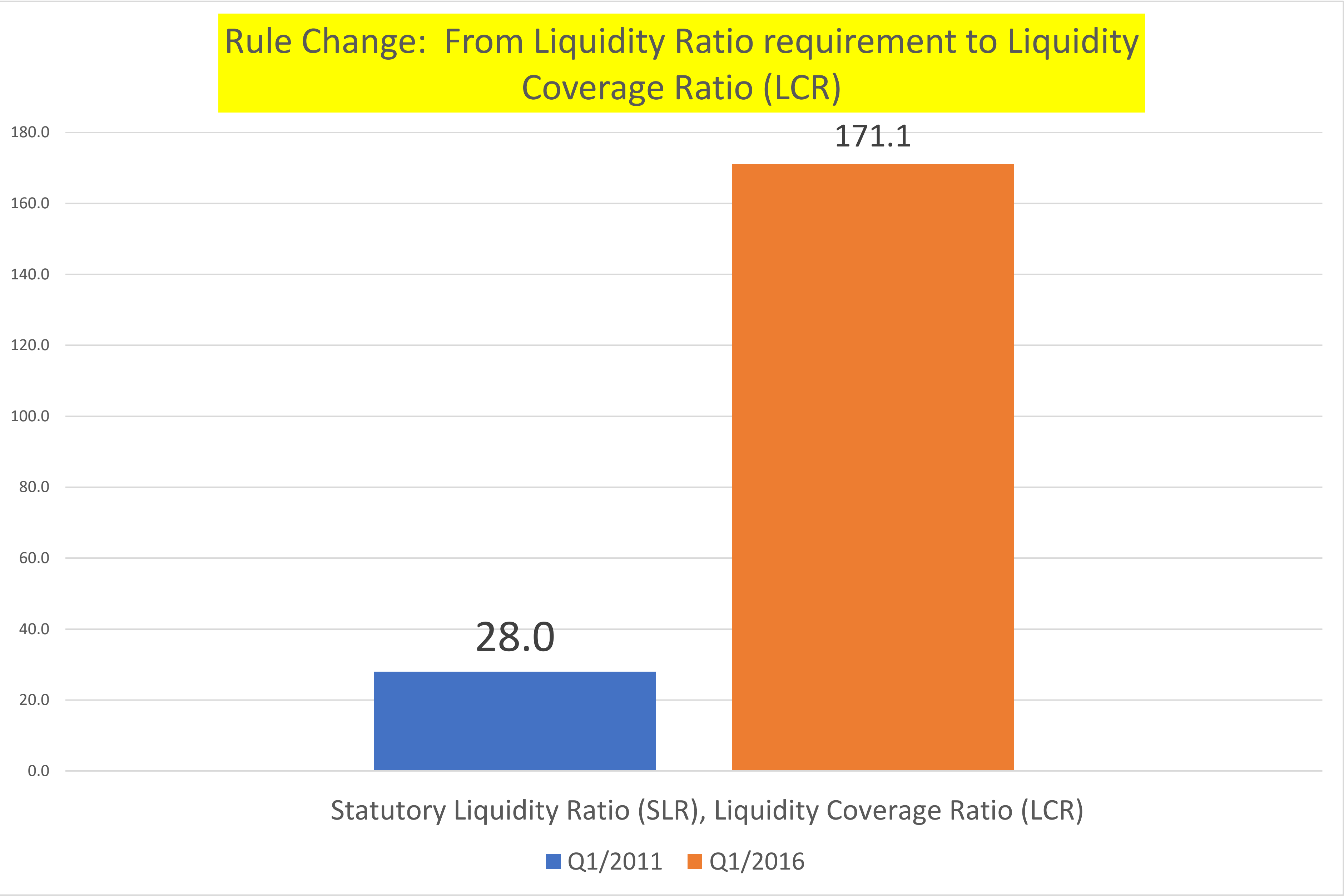
Provisions for loan losses

- Nonperforming loans **net of provisions** to capital is calculated by taking the value of nonperforming loans (NPLs) less the value of specific loan provisions as the numerator and capital as the denominator.
- Capital is measured as total capital and reserves in the sectoral balance sheet; for cross-border consolidated data, total regulatory capital can also be used.
- This Financial Soundness Indicator (FSI) is a capital adequacy ratio and is an important indicator of the capacity of bank capital to withstand losses from NPLs.

Liquidity

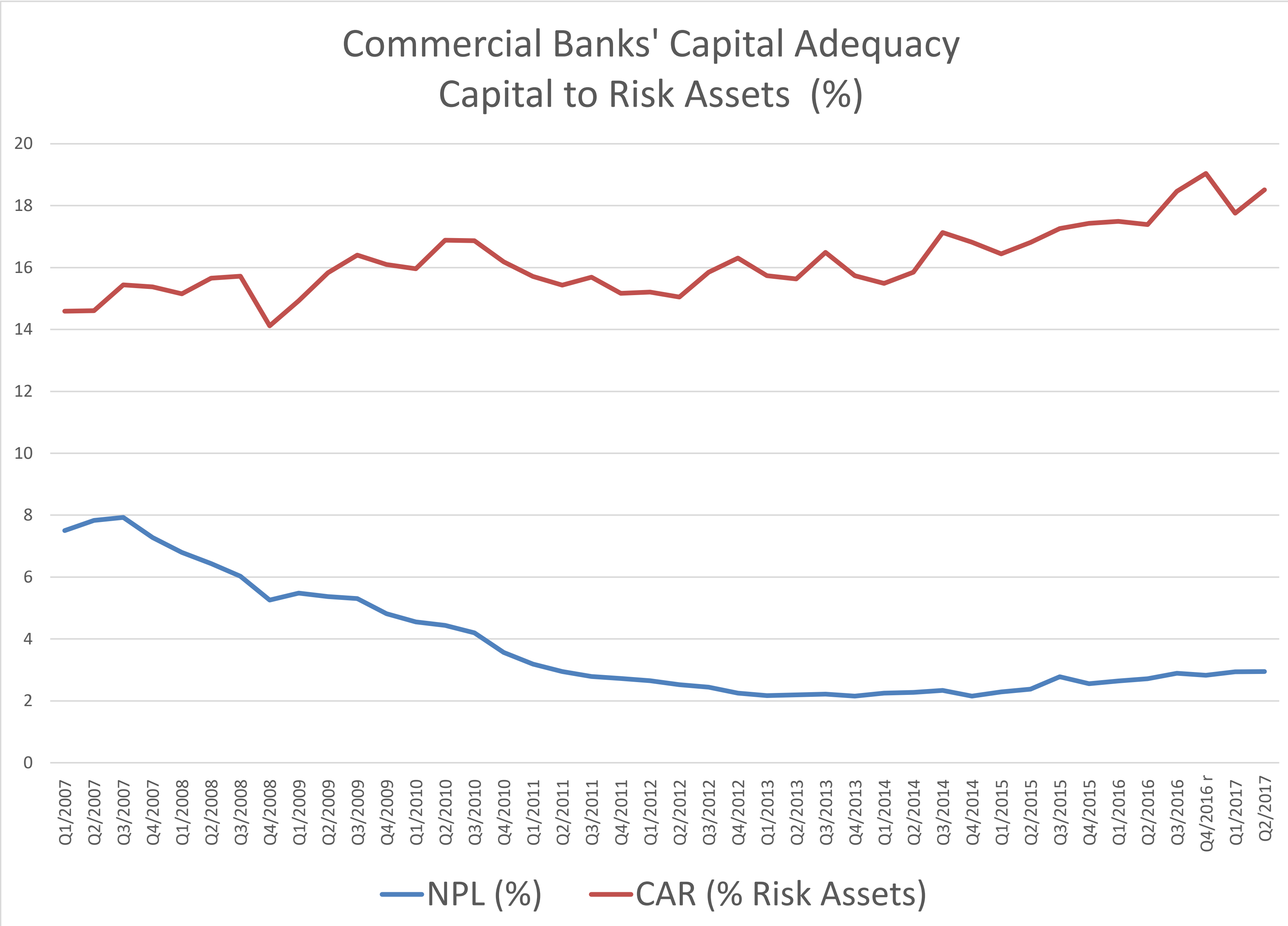
Ample liquidity prevents bank runs
The central bank acts as lender of last resort

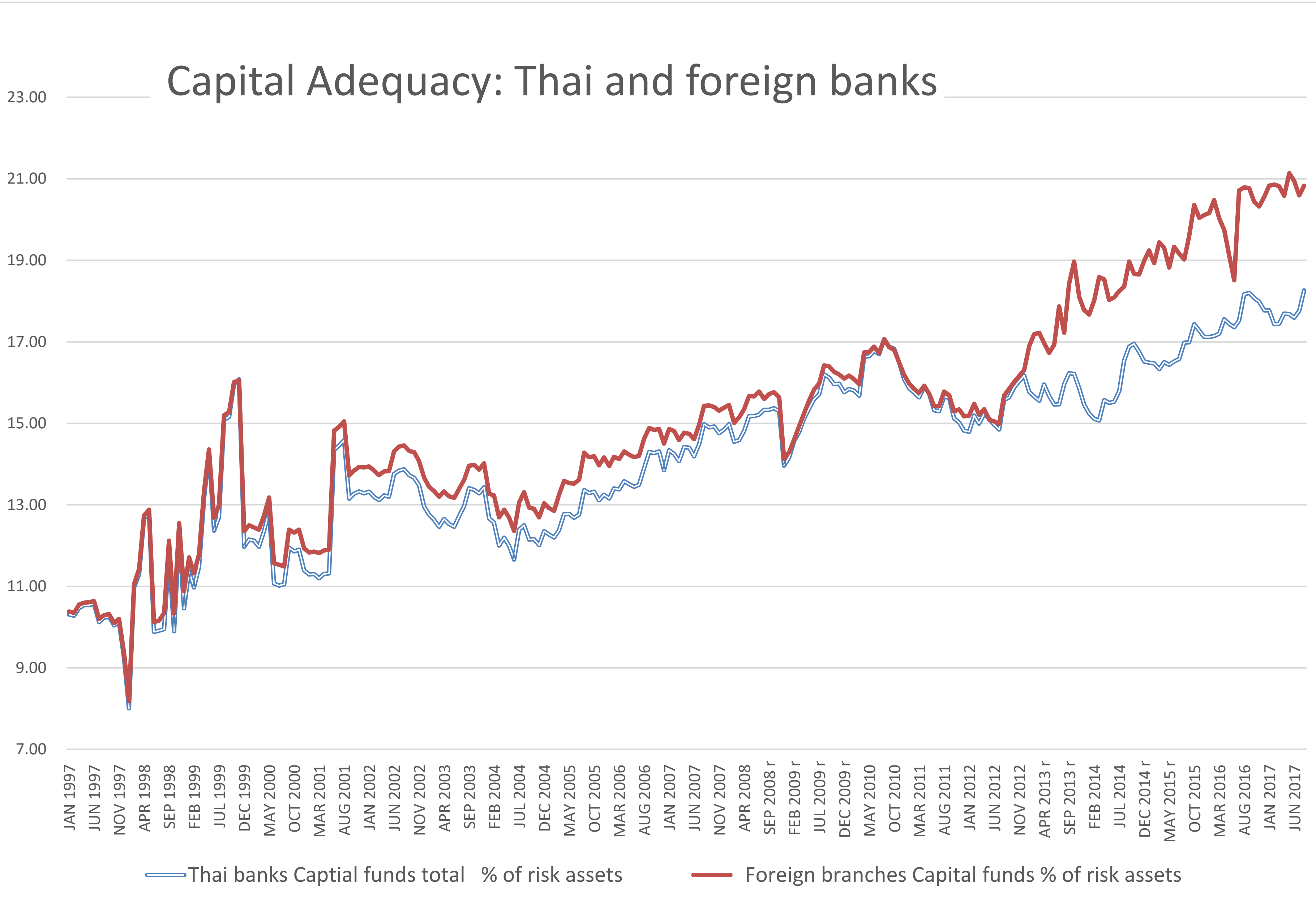



Rule Change: From Liquidity Ratio requirement to Liquidity Coverage Ratio (LCR)
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
28.0
171.1
Statutory Liquidity Ratio (SLR), Liquidity Coverage Ratio (LCR)
Q1/2011
Q1/2016

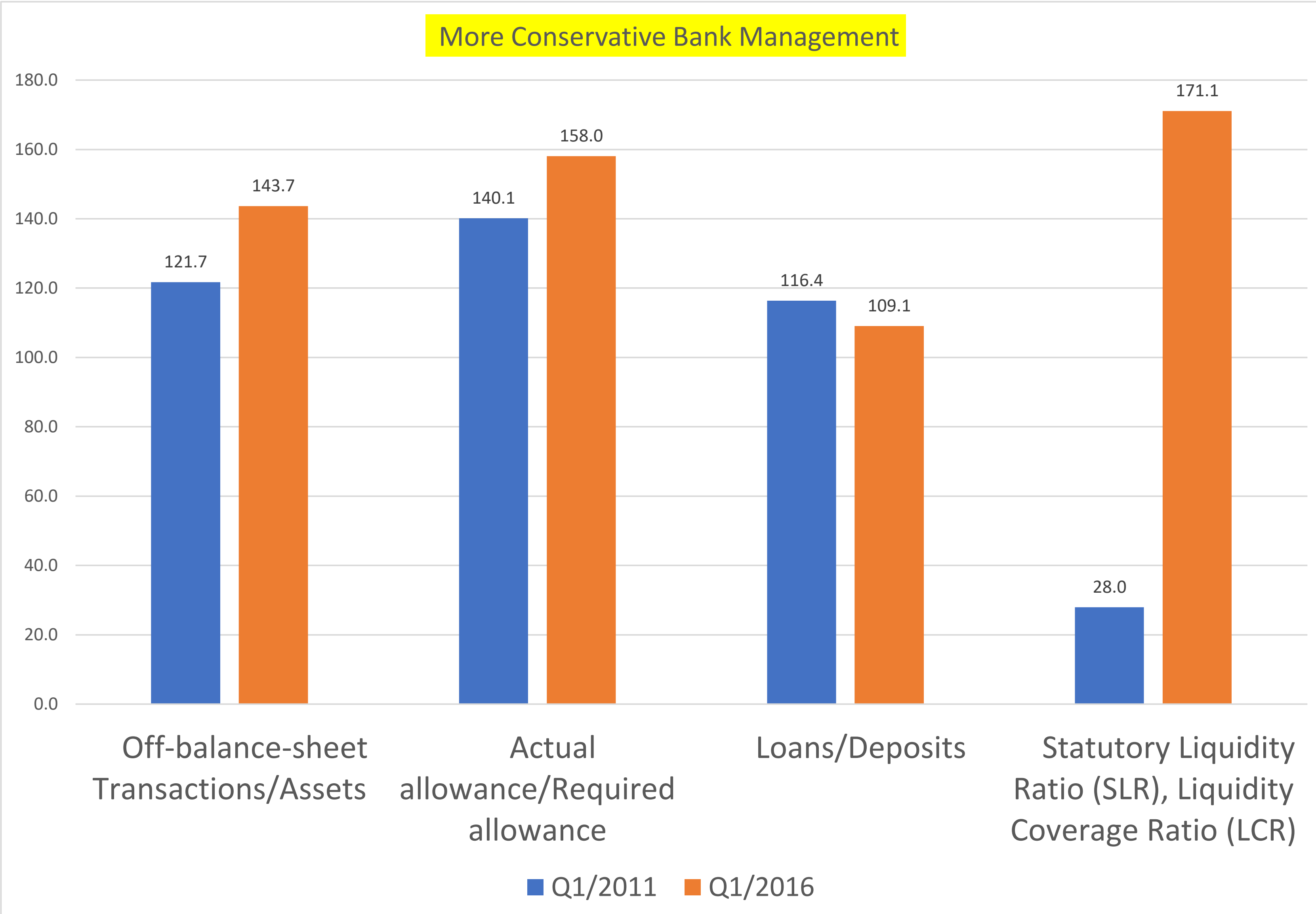
Capital Adequacy Ratio: (E/A)

- Equity (E) + Liabilities (L) = Assets (A)
- Liabilities = Deposits + Borrowings
- If borrowing is in USD, devaluation would make net equity negative: technical bankruptcy
- Net Equity = Assets – Liabilities
- When Assets (loans) are 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, E can become negative.
- The higher the ratio of equity to risk assets, the safer the deposits when banks have trouble with bad lending.
- That is why capital injection by government or foreign banks' participation can bail out troubled banks


Commercial Banks' Capital Adequacy
Capital to Risk Assets (%)
20
18
16
14
12
10
8
6
4
2
0
Q1/2007
Q2/2007
Q3/2007
Q4/2007
Q1/2008
Q2/2008
Q3/2008
Q4/2008
Q1/2009
Q2/2009
Q3/2009
Q4/2009
Q1/2010
Q2/2010
Q3/2010
Q4/2010
Q1/2011
Q2/2011
Q3/2011
Q4/2011
Q1/2012
Q2/2012
Q3/2012
Q4/2012
Q1/2013
Q2/2013
Q3/2013
Q4/2013
Q1/2014
Q2/2014
Q3/2014
Q4/2014
Q1/2015
Q2/2015
Q3/2015
Q4/2015
Q1/2016
Q2/2016
Q3/2016
Q4/2016 r
Q1/2017
Q2/2017
NPL (%)
CAR (% Risk Assets)



Capital Adequacy: Thai and foreign banks
23.00
21.00
19.00
17.00
15.00
13.00
11.00
9.00
7.00
JAN 1997
JUN 1997
NOV 1997
APR 1998
SEP 1998
FEB 1999
JUL 1999
DEC 1999
MAY 2000
OCT 2000
MAR 2001
AUG 2001
JAN 2002
JUN 2002
NOV 2002
APR 2003
SEP 2003
FEB 2004
JUL 2004
DEC 2004
MAY 2005
OCT 2005
MAR 2006
AUG 2006
JAN 2007
JUN 2007
NOV 2007
APR 2008
SEP 2008 r
FEB 2009 r
JUL 2009 r
DEC 2009 r
MAY 2010
OCT 2010
MAR 2011
AUG 2011
JAN 2012
JUN 2012
NOV 2012
APR 2013 r
SEP 2013 r
FEB 2014
JUL 2014
DEC 2014 r
MAY 2015 r
OCT 2015
MAR 2016
AUG 2016
JAN 2017
JUN 2017
Thai banks Captial funds total % of risk assets
Foreign branches Capital funds % of risk assets


More Conservative Bank Management
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
121.7
143.7
140.1
158.0
116.4
109.1
28.0
171.1
Off-balance-sheet Transactions/Assets
Actual allowance/Required allowance
Loans/Deposits
Statutory Liquidity Ratio (SLR), Liquidity Coverage Ratio (LCR)
Q1/2011
Q1/2016

Conclusions

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