Roles of the Central Bank in Financial Markets

By

Dr. Chatsurang Karnchansai

History of the Bank of Thailand

The Thai National Banking Bureau, set up in 1939 with the status of a department attached to the Ministry of Finance, was the first organisation to assume central banking activities in Thailand.

world war 2

After the Second World War had spread to Asia, the Government decided to change the status of the Bureau to a central bank.

The Bank of Thailand started operations on 10th December 1942.

รัฐธรรมนูญ

First Governor was H.H.Prince Vivadhanajaya

(พระวรวงศ์เธอ พระองค์เจ้าวิวัฒนไชย)

Examples of Central Banks in the World

Bank of Canada US Federal Reserve Bank of England European Central Bank Deutsche Bundesbank Swiss National Bank Banque De France Banca d'Italia Bank of Spain Bank of Portugal Bank of Sweden Bank of Mexico Central Bank of Argentina	National Bank of Denmark National Bank of Belgium Bank of Finland Netherlands Bank Austrian National Bank Bank of Greece Central Bank and Financial Services Authority of Ireland National Bank of Poland Central Bank of Brazil	Central Bank of Russia Reserve Bank of Australia Reserve Bank of New Zealand People's Bank of China Hong Kong Monetary Authority Monetary Authority of Singapore Bank of Indonesia Bank of Japan Reserve Bank of India

Different Roles across Central/National Banks

US

Federal Reserve Board (Monetary Stability)

Office of Comptroller of Currency (Print Money)

UK

Bank of England (Monetary Stability)

Financial Conduct Authority (Financial Stability)

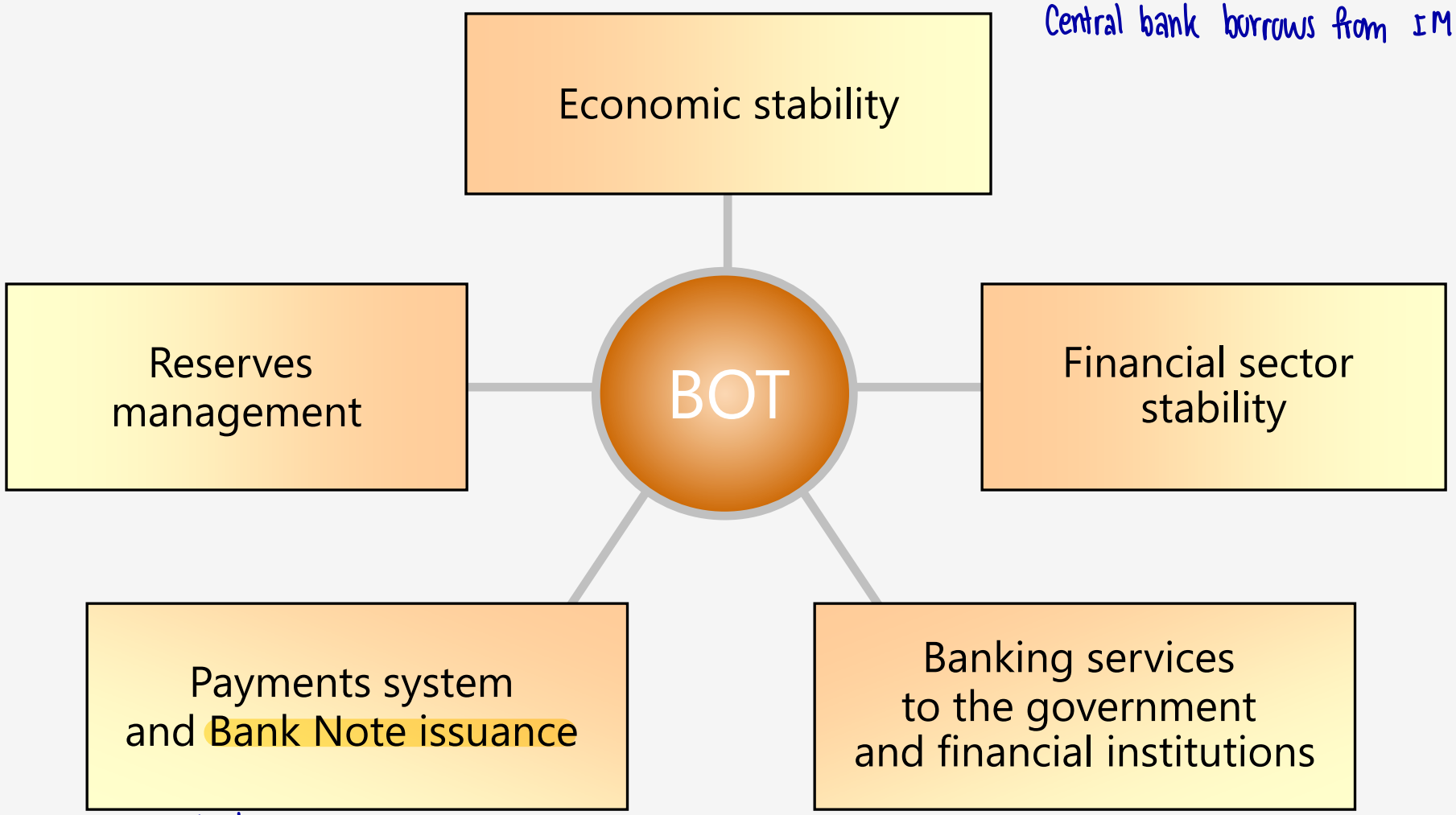
Hong Kong

HKMA (Monetary and Financial Stability)

Commercial Banks (Print Money)

Bank of Thailand (BOT) Main Functions

Central bank borrows from IMF



print currency under open operation ; Ministry of Finance create coin

include in money supply

Main Roles of the Bank of Thailand

Print money (formerly with Treasury until Dec 1942)
Provide Payment clearing system

} **Note issuance and Payment**

Open market operations (OMO)

- **Announce Policy interest rate (1 day repo rate= 2.25%)**
- **Determine required reserves** (จำนวนคนมากถอนเงินได้) **(6% which 2.5% vault cash)**
- **Standing facility (policy rate+0.50% for overnight)**

rate that BOT lend to commercial banks

BIBOR rate : rate that bank borrow from each other

Interbank borrowing : not strict, lower cost of borrowing compared to BOT

} **Economic Stability (monetary policy instruments)**

open mkt operation
↳ BOT hasn't issue BOT bond for a while

Supervise and Regulate Financial Institutions

} **Financial Stability**

Banking services to the government and financial institutions

} **Service to Govt/FI**

Country's international reserves management

} **Manage Reserves**

deposit insurance : million baht per bank

Bank of Thailand Departments

Monetary Stability

- Monetary Policy
- Financial Markets → carry out policy

Financial Stability

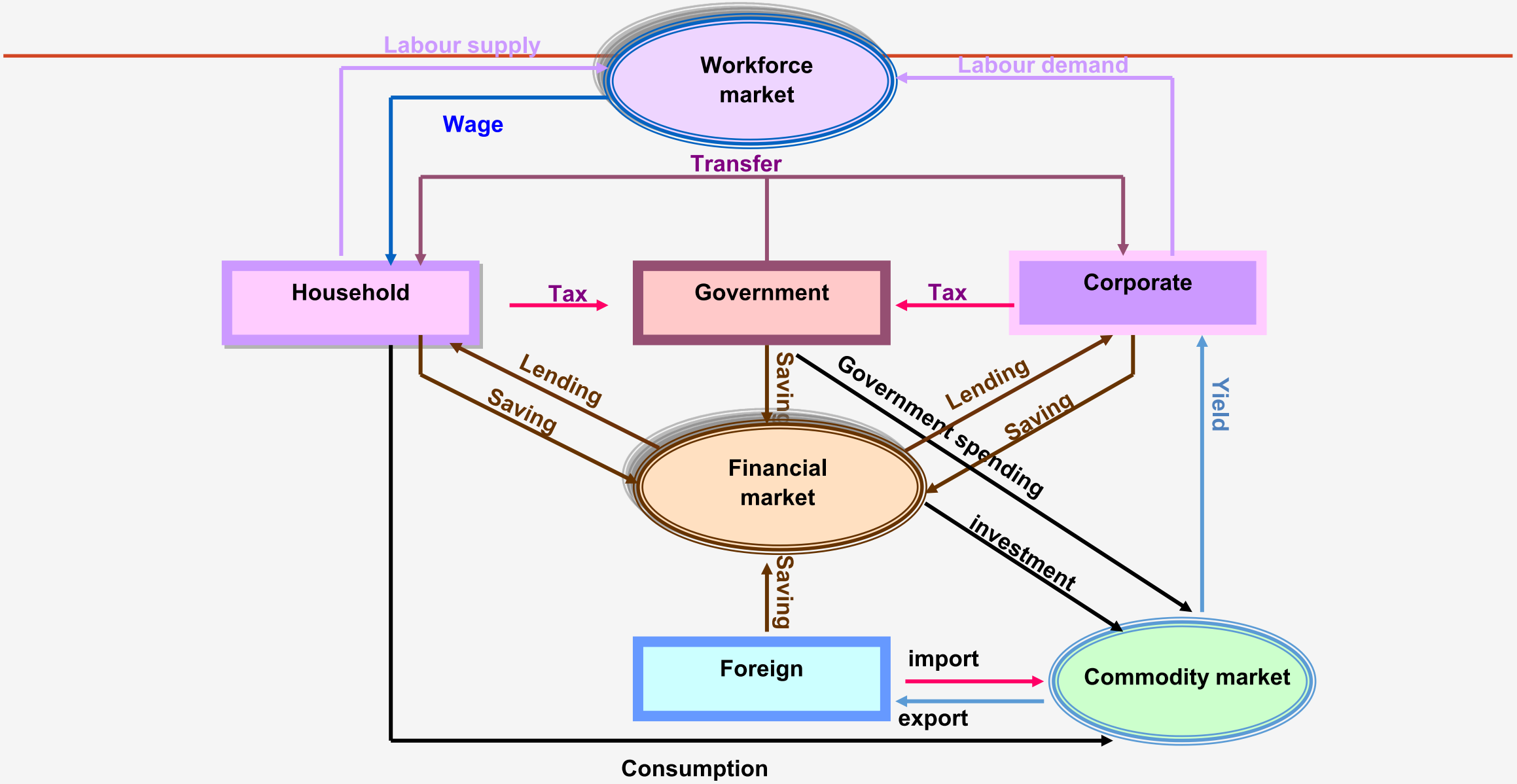
- Supervision Group 1
- Supervision Group 2
- Financial Institutions Policy
- Payments

General Management

- Notes Printing
- Regional Office
- Other (IT, Legal, Internal Audit)

Thai Financial System

Modern Economy



Major functions of the Financial System

- Providing payment services
- Matching savers and investors
- Allocating credit to facilitate transactions
- Increasing liquidity

Financial Market Flow

people who borrow and lend
don't know each other

Indirect funding

(Financial Intermediaries)

Savings

Savers / Lenders / Investors

- Household
- Business
- Government
- Foreign

Money Market

Loans

Borrowers / Business

- Household
- Business
- Government
- Foreign

- Capital efficiency
- Job creation

- Good for the economy
- Create well being

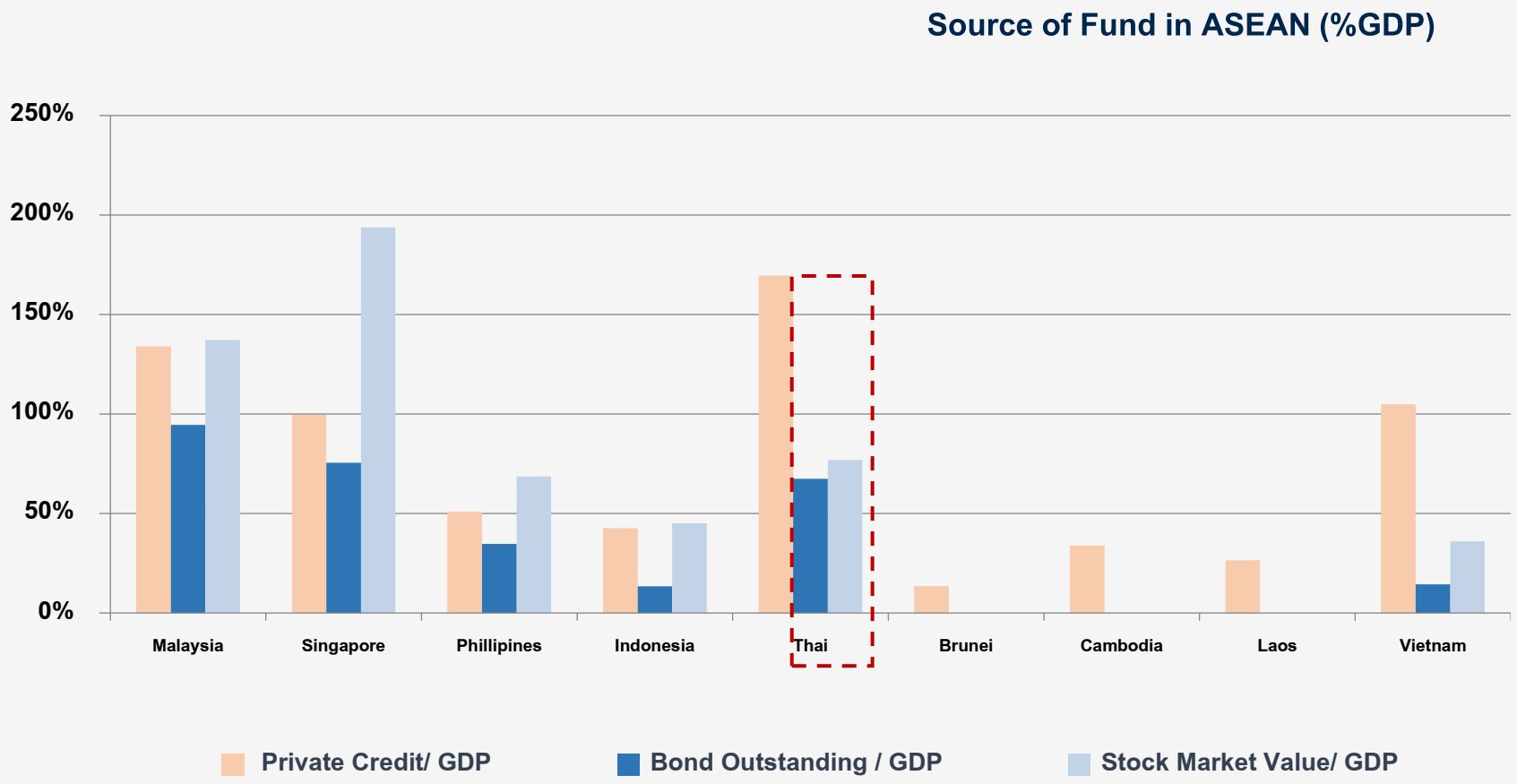
Investment

Capital Market

Direct Funding

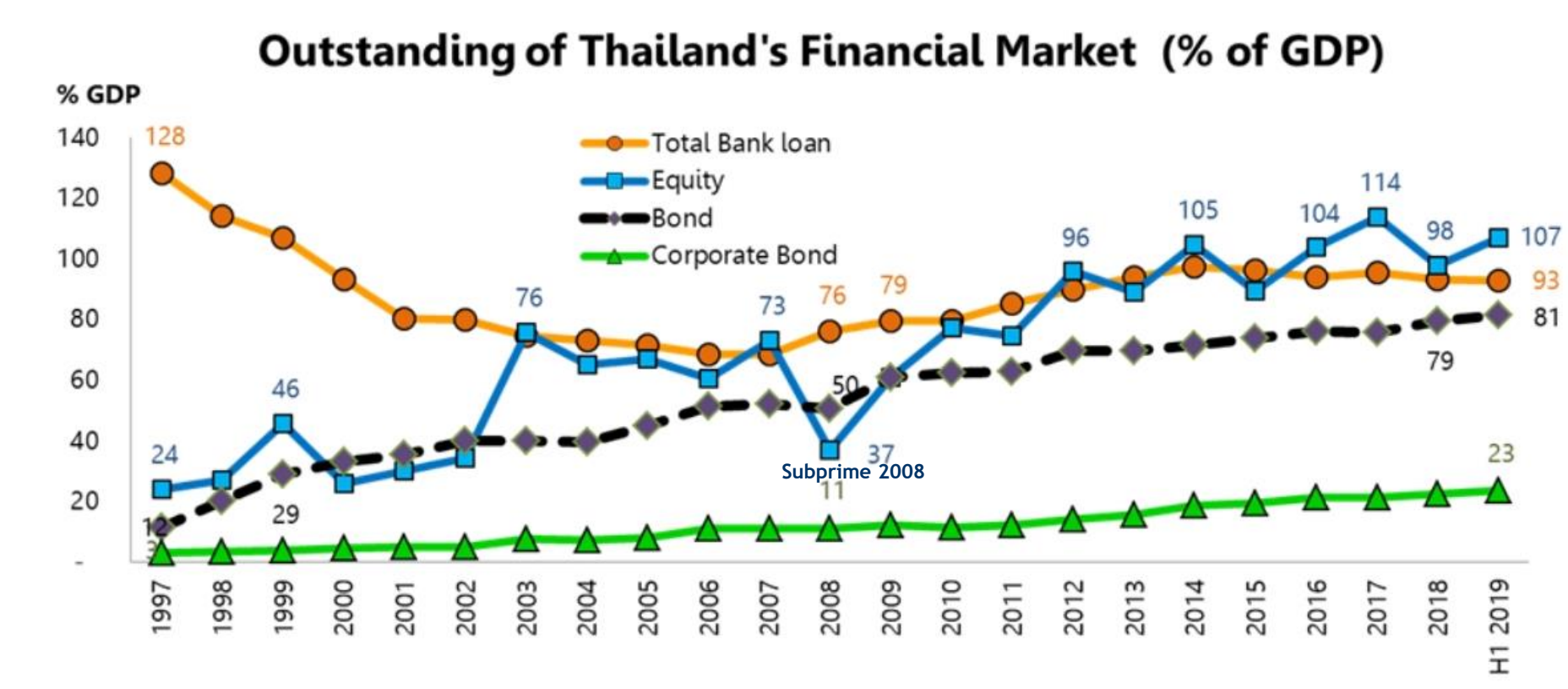
Equity Investment /
Bond / Derivatives

Financial Landscape by Country in 2012



Source : World Bank 2012

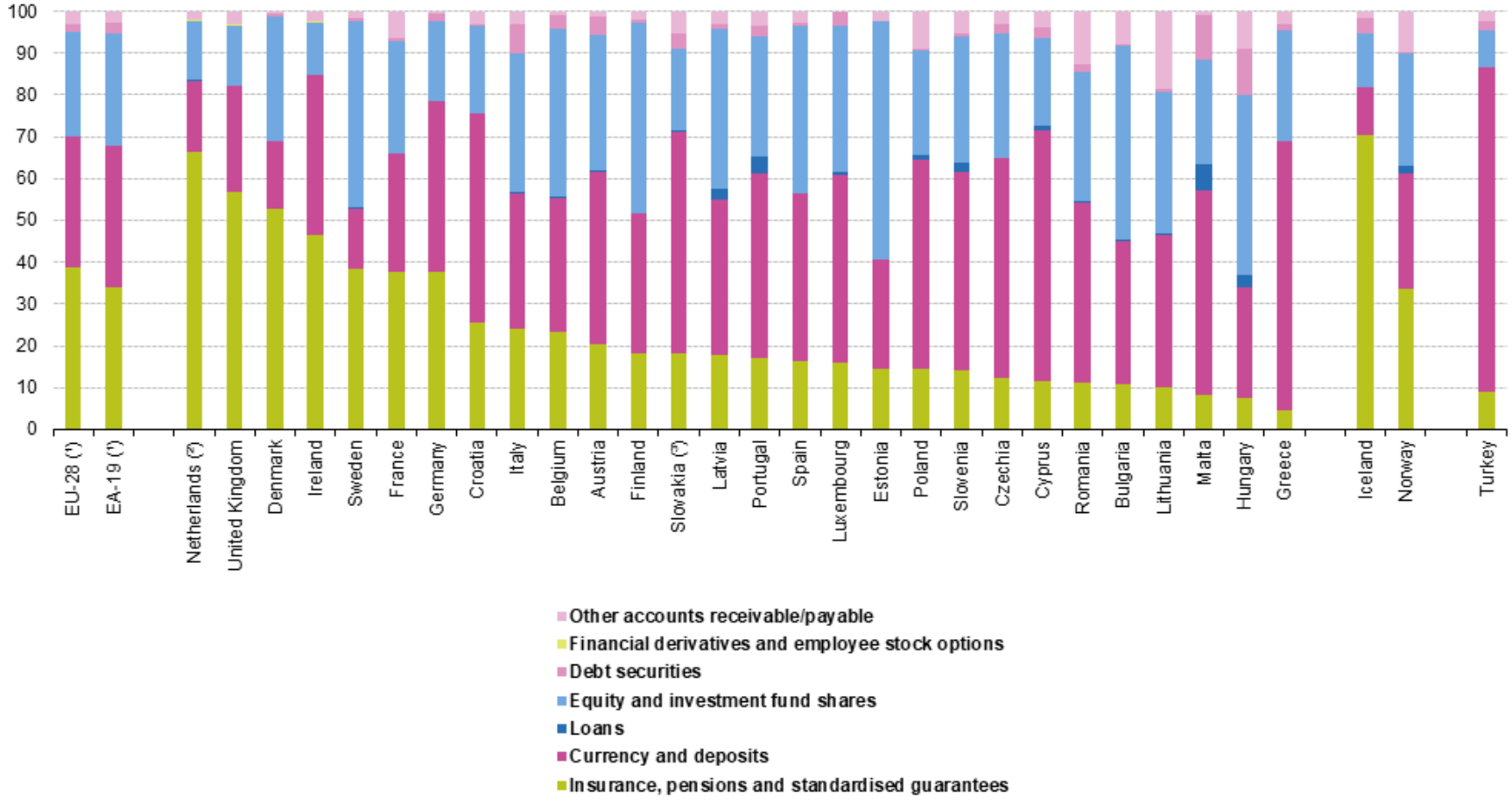
Thailand's Financial Market assets outstanding (% GDP)



- The total outstanding of Thai bond market was THB 13.3 trillion (USD 443 billion) as of June 2019.
- This included Government bonds (37%), Corporate bonds (29%), central bank bonds (27%) and state-owned enterprise (SOE) bonds accounted (7%). Source: Thai BMA

Financial Landscape by Country

Financial assets of households by financial instrument, 2018
(% share of total financial assets of households)



(¹) Provisional. Financial derivatives and employee stock options: estimate.
(²) Provisional.
(³) Financial derivatives and employee stock options, estimate.
Source: Eurostat (online data code: nasa_10_f_bs)

eurostat

Regulatory Agencies in Thailand

Financial Market

Money Market

BANK OF THAILAND

- Financial Institutions (CB , Finance Co. Credit Foncier)
- SFIs (8) (GSB BAAC GHB Islamic Bank)
- Representative Offices
- Asset Management Corp
- Non-bank(lenders)

Capital Market

SEC

- Securities Co
- Asset Mngt Co
- Listed Co

Insurance

OIC
Office of Insurance Commission

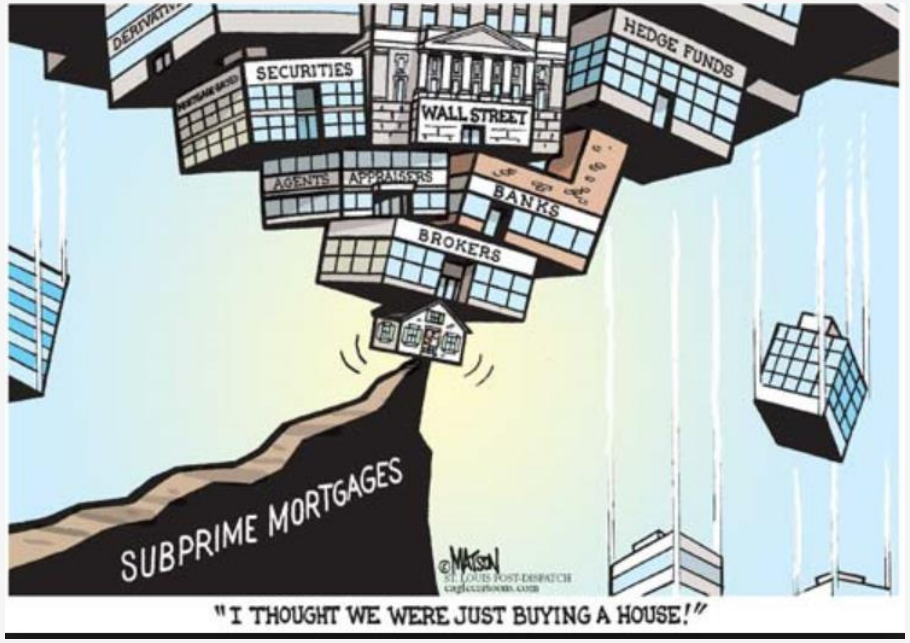
- Life Insurance Companies
- Non Life Insurance

Other

Min. of Commerce / Min. of Agriculture and Cooperatives

- Hire Purchase Co
- Leasing Co
- Factoring Co
- Cooperatives (สหกรณ์ออมทรัพย์) } อยู่ใต้กระทรวงเกษตรและสหกรณ์
- Pawn Shops (โรงจำนำ)

Why want a stable financial system?



What happens when there is a rumor of a financial collapse? Financial Instability

- *Bank runs* are the classic form of liquidity crisis
- If customers fear that a bank may not have enough assets to pay all depositors, the depositors run to the bank and stand in line to withdraw their money before the bank goes bust
- As withdrawals deplete the bank's liquid assets, the fear of failure can become self-fulfilling

Bank run in Birmingham, England, September 2007

Photo source: Lee Jordan, http://commons.wikimedia.org/wiki/File:Birmingham_Northern_Rock_bank_run_2007.jpg

- BBC business editor Robert Peston revealed that the Rock had applied to the Bank of England for emergency support to help it through a liquidity crisis triggered by the sub-prime mortgage slump in the US.
- By the next day, queues of customers desperate to get their hands on their life savings had begun to form outside Northern Rock branches around the country.

Managing Stability in 2023

Economic slowdown

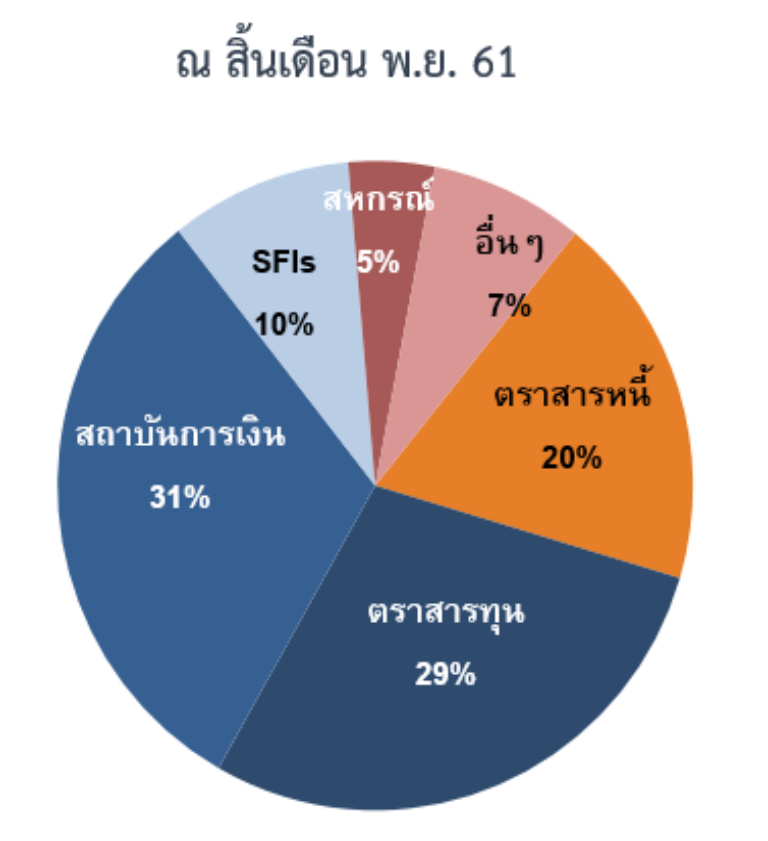
Capital Markets

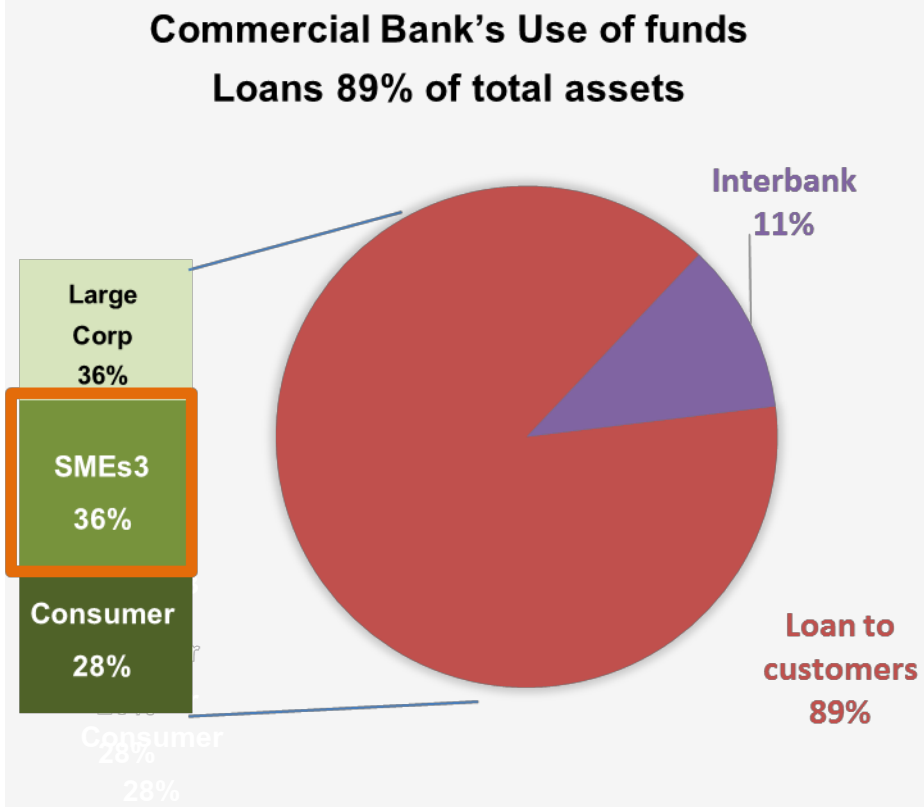
Financial stability

Housing Debt

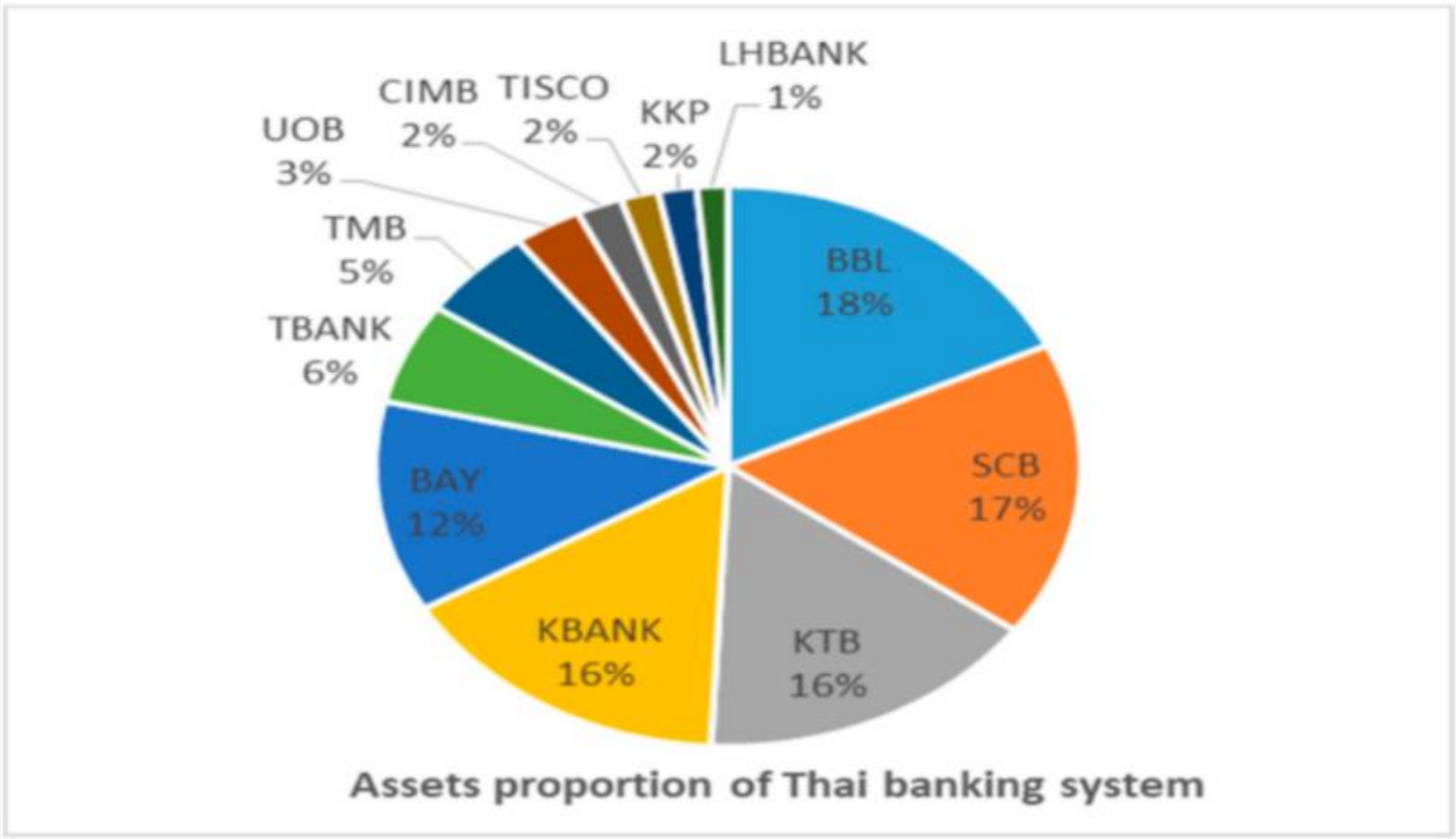
Strong Competition - Many choices

Thai Financial System Structure





Thai Banking System



Source: SEC.or.th (2020)

Types of Financial Institutions

ธนาคารพาณิชย์ในระบบสถาบันการเงิน		
1. ธพ. ไทย (14 แห่ง) Thai Banks	ธพ. ขนาดใหญ่ Large banks	
	ธพ. ขนาดกลาง Medium banks	ttb ทีเอ็มบีธนชาต TMBThanachart
	ธพ. ขนาดเล็ก Small banks	TISCO, LH BANK, ICBC
2. ธย. (1 แห่ง) Bank for Retail	ธ. ไทยเครดิต Retail Bank	
3. สาขา ธพ. ตปท. (11 แห่ง) Foreign banks branches		J.P.Morgan, citibank, SMBC, BNP PARIBAS, Bank of America, MIZUHO, RHB, OCBC Bank, HSBC, Indian Overseas Bank
4. Subsidiary (4 แห่ง)		ANZ

SFI = สถาบันการเงินเฉพาะกิจ (Government Banks)

Divided into two types

Banks that provide Savings and Loan services

Govt Savings Bank

พ.ร.บ.ธนาคารออมสิน พ.ศ.2489

Bank for Agriculture and Agricultural Coop

พ.ร.บ.ธนาคารเพื่อการเกษตรและสหกรณ์ พ.ศ. 2509

Govt Housing Bank

พ.ร.บ.ธนาคารอาคารสงเคราะห์ พ.ศ.2496

Govt Islamic Bank

พ.ร.บ.ธนาคารอิสลามแห่งประเทศไทย พ.ศ.2545

- สถาบันการเงินเฉพาะกิจที่ทำธุรกิจตามขอบเขตที่กำหนด (Special purpose)

Govt Export Import Bank

พ.ร.บ.ธนาคารเพื่อการส่งออกและนำเข้าแห่งประเทศไทย พ.ศ.2536

Govt SME Bank

พ.ร.บ.ธนาคารพัฒนาวิสาหกิจขนาดกลางและขนาดย่อม พ.ศ.2545

Thai Credit Guarantee Corp

พ.ร.บ.บรรษัทประกันสินเชื่ออุตสาหกรรมขนาดย่อม พ.ศ.2534

Secondary Mortgage Corp

พ.ร.ก. บรรษัทตลาดรองสินเชื่อที่อยู่อาศัย พ.ศ. 2540

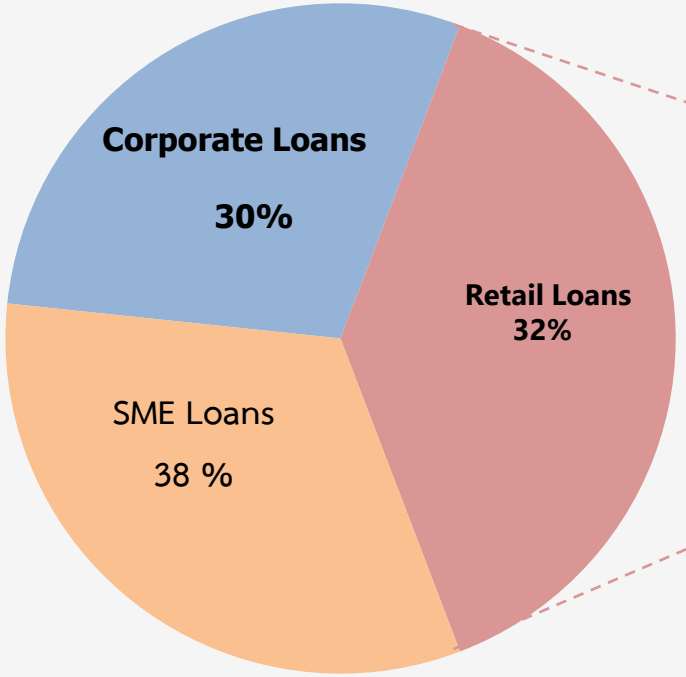
Non-banks

Credit Card Companies

Personal loan companies under BOT supervision

Commercial Banks

Type of Loans

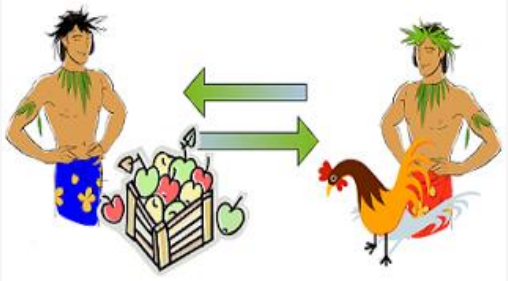


Retail Loans
Housing Loans
Hire Purchase
Credit Cards
Other personal loans

ที่มา : ธนาคารแห่งประเทศไทย (ข้อมูล ณ พ.ย. 61)

Bank Notes Issuance

The Evolution of our Exchange system



Barter

Gold Backed

IMF comes to check the gold
also foreign currency

Various types of hard currency.

Reserves

Currency outstanding had to be fully backed by the currency reserves, consisting mainly of gold, foreign exchange and Government papers denominated both in baht and foreign currencies.

Money in Early Thai Economy

Before the adoption of banknotes and flat coins, Thailand used *Cowrie Shells, Prakab* (Baked Clay Coins) and *Pot Duang* as the money.

Cowrie Shells

หอยเบี้ย

Prakab

ประกับดินเผา

Pot Duang

เงินพดด้วง

Source: Bank of Thailand

First Issuance of Money in Thailand

400 Ticals Banknote,
The Hongkong & Shanghai Banking Corporation.

80 Ticals Banknote,
The Chartered Bank of India, Australia & China.

5 Ticals Banknote,
The Banque de L' Indo-Chine.

Source: Bank of Thailand

BOT's Role in Banknote Management (Printing Money)

Some Misconceptions about Printing Money:

- Money is anything that is exchange for payment.
- All currencies are equally demanded.
- Anyone can print "money" (Laws, Who can print? Bitcoin)
- Government can print as much money as we want

Characteristics of Money

can be used to pay at anywhere

Medium of exchange – Is generally accepted as payment for goods and services (and debts) or "Legal Tender". Is it everyone willing to accept it?

Store of value – Can be held for future purchases. Does it hold value?

Standard of value - Serves as a measurement for the price of goods and services.

You are viewing Chatsurang Karnchanasai's screen
View Options

"Legal Tender"

"Bank note is money that may be use to legally pay debt"

Suparat Pa
Suparat Patarasupa
Chatsurang Karnchan
Pawat
Pawat FT'27
Fra
Fray
Jirato
25
Participants
Chat
Share Screen
Reactions
Apps
Whiteboards
ASUS Vivobook

Money is an "asset"

Money Supply

Type of Money	M0	MB	M1	M2	M3	MZM
Notes and coins in circulation (outside Federal Reserve Banks and the vaults of depository institutions) (currency)	✓	✓	✓	✓	✓	✓
Notes and coins in bank vaults (Vault Cash)		✓				
Federal Reserve Bank credit (required reserves and excess reserves not physically present in banks)		✓				
Traveler's checks of non-bank issuers			✓	✓	✓	✓
Demand deposits			✓	✓	✓	✓
Other checkable deposits (OCDs), which consist primarily of Negotiable Order of Withdrawal (NOW) accounts at depository institutions and credit union share draft accounts.			✓	✓	✓	✓
Savings deposits				✓	✓	✓
Time deposits less than $100,000 and money-market deposit accounts for individuals				✓	✓	
Large time deposits, institutional money market funds, short-term repurchase and other larger liquid assets					✓	✓
All money market funds						✓

Source: US Federal Reserve

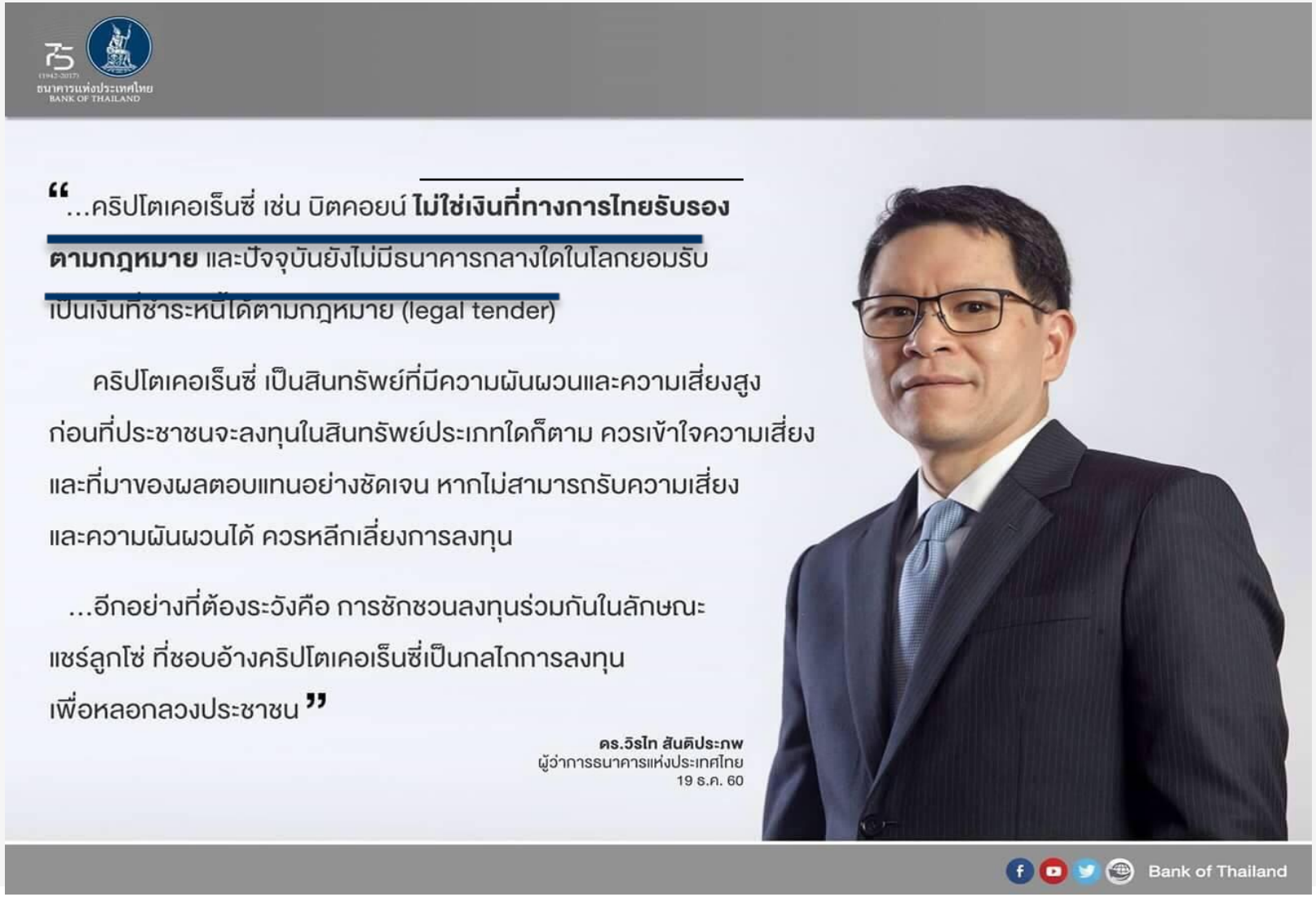
Why some currencies tend to be widely used or held?

The use of money in market transactions depends on sellers' willingness to accept money as a medium of exchange.

US Dollar, Euro, UK Pound, Japanese yen

Vietnames Dong, Myanmar Kyat, Zimbabwe Dollar

Bitcoin as a “Cryptocurrency” is not currently Legal Tender by most Central Banks including in Thailand



Some Central Banks Do Not Print their Own Money

Independent Function

- The country often prints its own central bank to ensure control over its currency.

Common Currency

- In the European Monetary Union, 19 European countries have ceded their right to conduct independent monetary policy to the European Central Bank (ECB).
- This was part of a broader move toward economic integration.

The Central Bank does not have to print the money…
The Hong Kong Currencies….

Misconceptions about Print Money

- **Print more money, incomes rise (richer population).**
- **Print more money, GDP grows.**
- **Print more money, produce more goods.**
- **Print more money, everyone happier.**
- **It always holds its value.**

The price stability goal

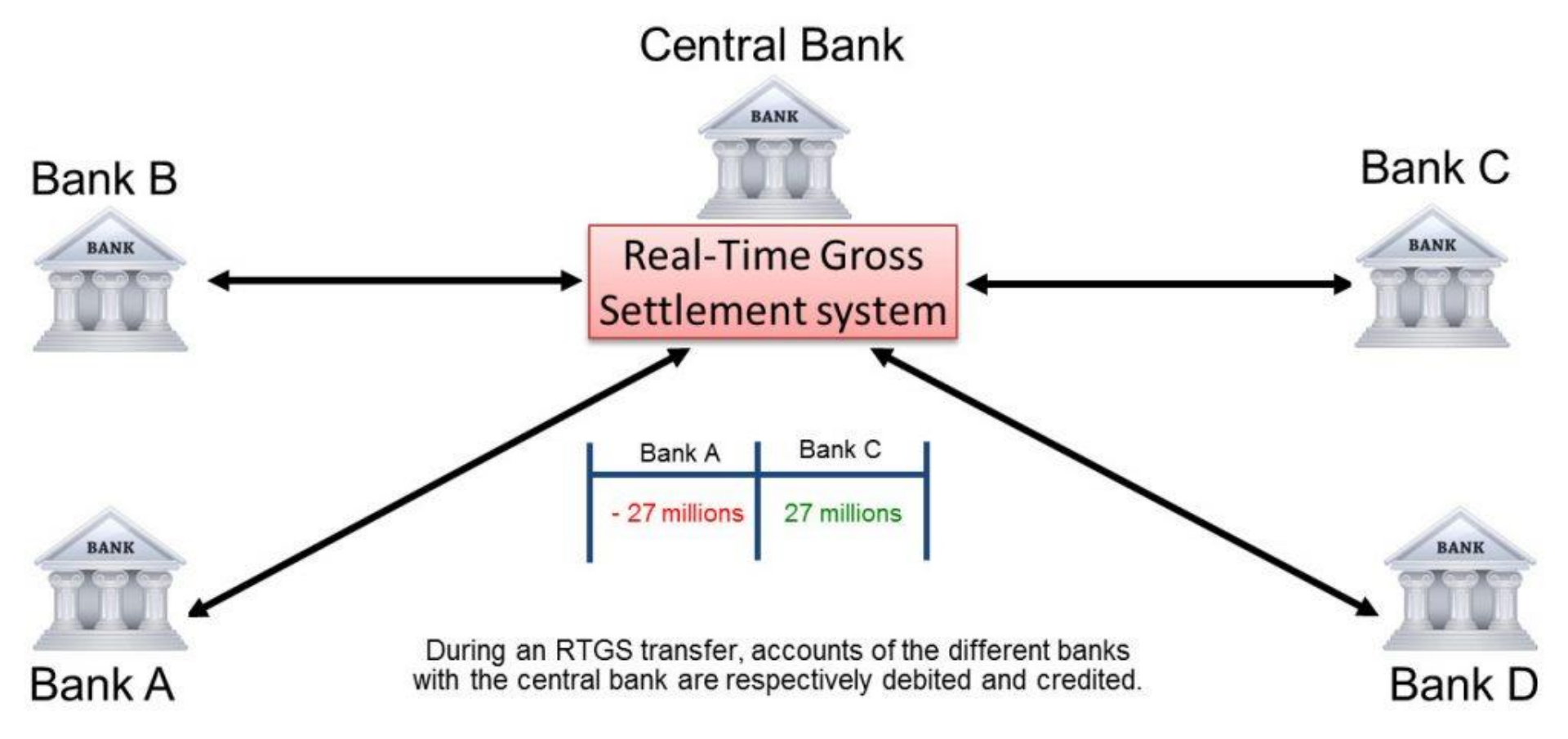
Social and economic costs of inflation:

- Uncertainty
- Lowers economic growth
- Strains social fabric

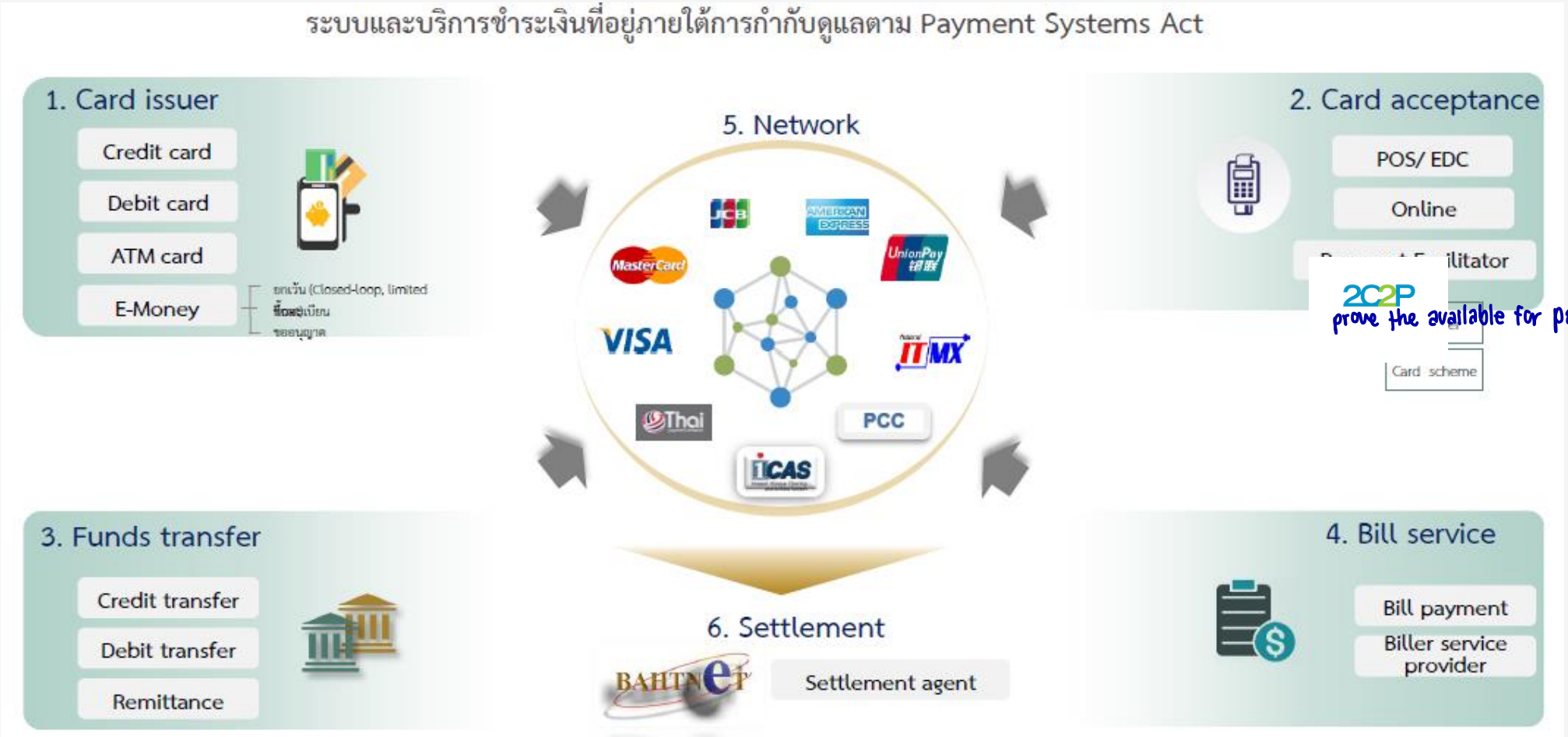
Price stability: low and stable inflation

Payment System

Settlement System between Banks (BAHTNET)



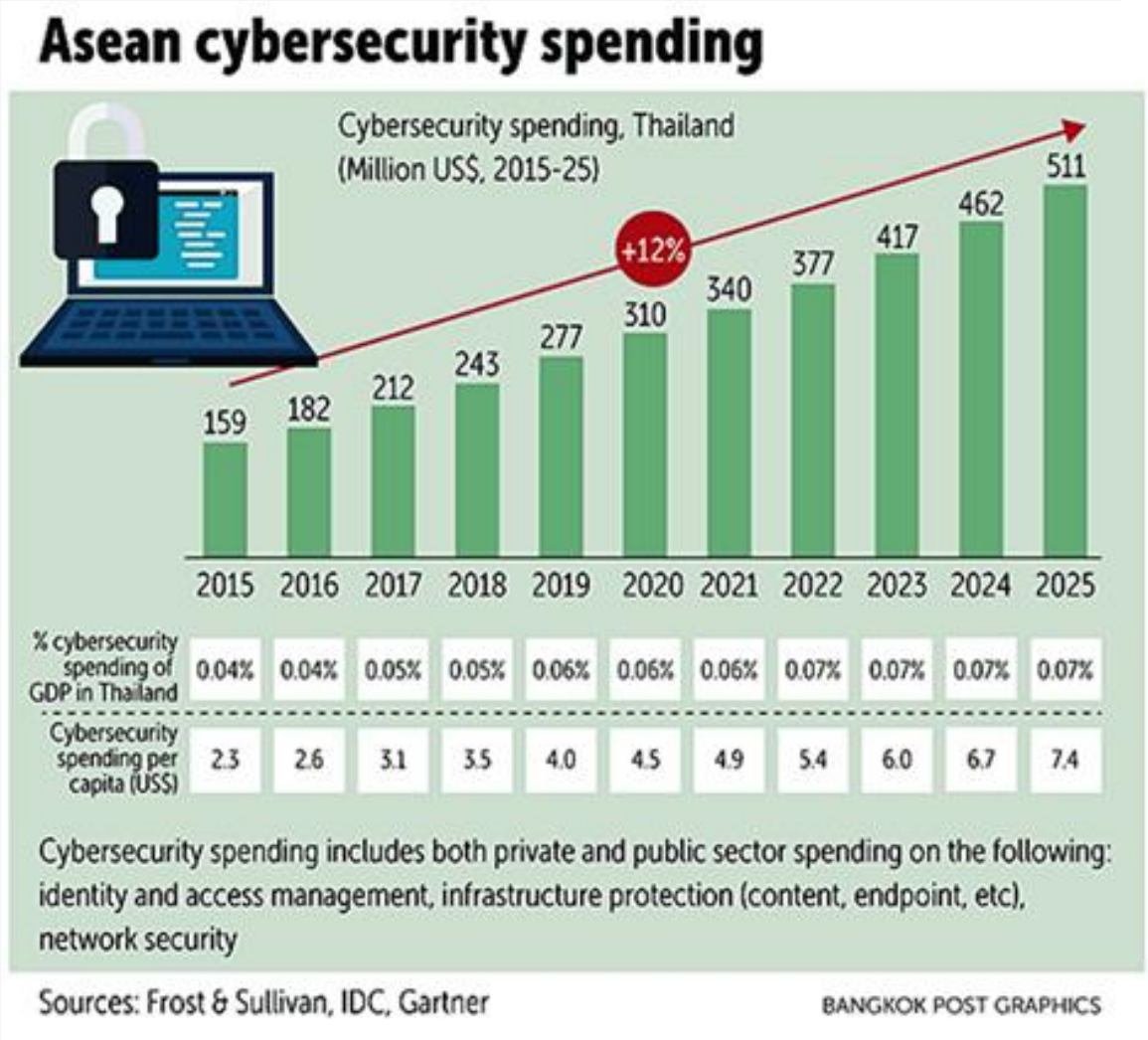
Payment System Network



Risk of Cyber Attacks

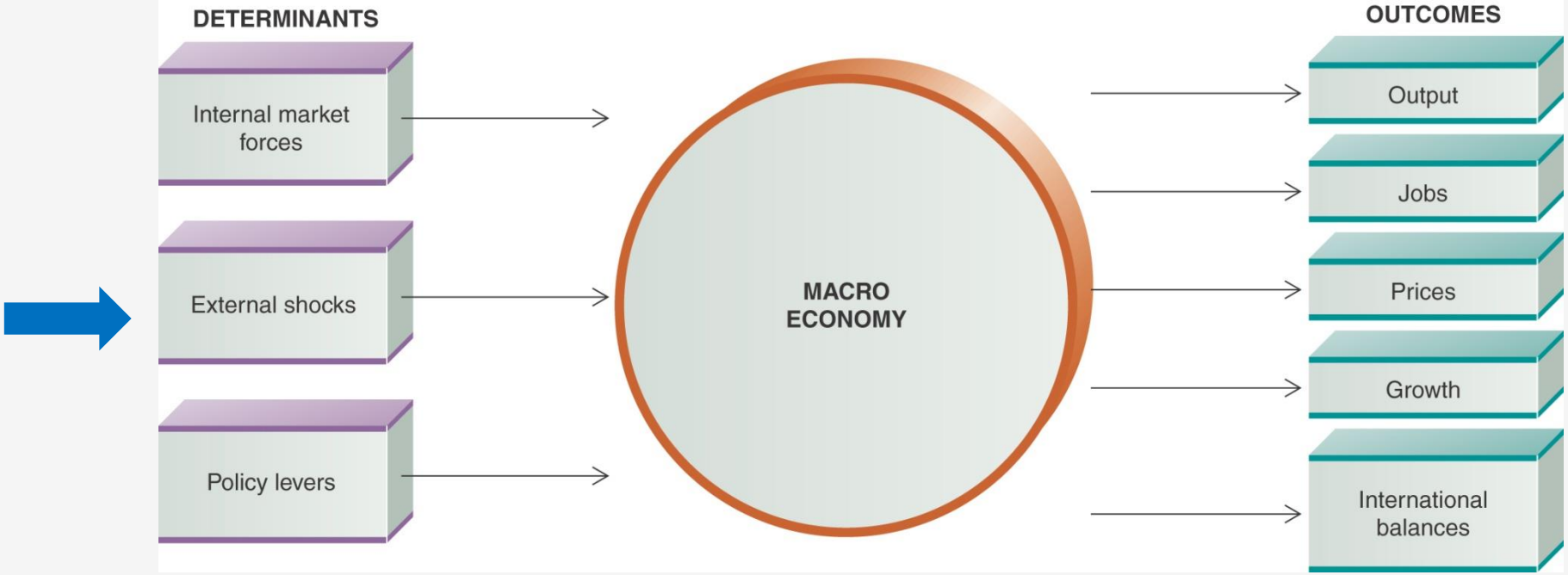
Institution	Year	Type of attack	Details
Federal Reserve Bank of Cleveland	2010	Data breach	Theft of 122,000 credit cards
Federal Reserve Bank of New York	2012	Data breach	Theft of proprietary software code worth USD 9.5 Million
Sveriges Riksbank	2012	Business Disruption	Distributed Denial of Service (DDoS) attack left the website offline for 5 hours
Banco Central del Ecuador	2013	Fraud	USD 13.3 Million stolen from the account of the city of Riobamba at the central bank
Federal Reserve Bank of Saint Louis	2013	Data breach	Publication of credentials of 4,000 US bank executives by Anonymous
Central Bank of Swaziland	2014	Fraud	Theft of USD 688,000
ECB	2014	Data breach	20,000 email addresses and contact information compromised
Norges Bank	2014	Business Disruption	DDoS attack on seven large financial institutions, resulting in suspended services during a day.
Central Bank of Azerbaijan	2015	Data breach	Theft of thousands of bank customers' information
Bangladesh Bank	2016	Fraud	The SWIFT credentials of the Bangladesh central bank were used to transfer USD 81 Million from its account at the FRBNY. Hackers tried to steal USD 951 Million.
Bank of Russia	2016	Fraud	21 Cyber-attacks aimed at stealing USD 50 Million from correspondent bank accounts at the central bank, resulted in a loss of USD 22 Million.
Bank of Italy	2017	Data Breach	Hack of email accounts of two former executives.

Source: ORX News



Economic Stability and Monetary Policy

The Economy


DETERMINANTS
Internal market forces
External shocks
Policy levers
MACRO ECONOMY
OUTCOMES
Output
Jobs
Prices
Growth
International balances

Past Crisis

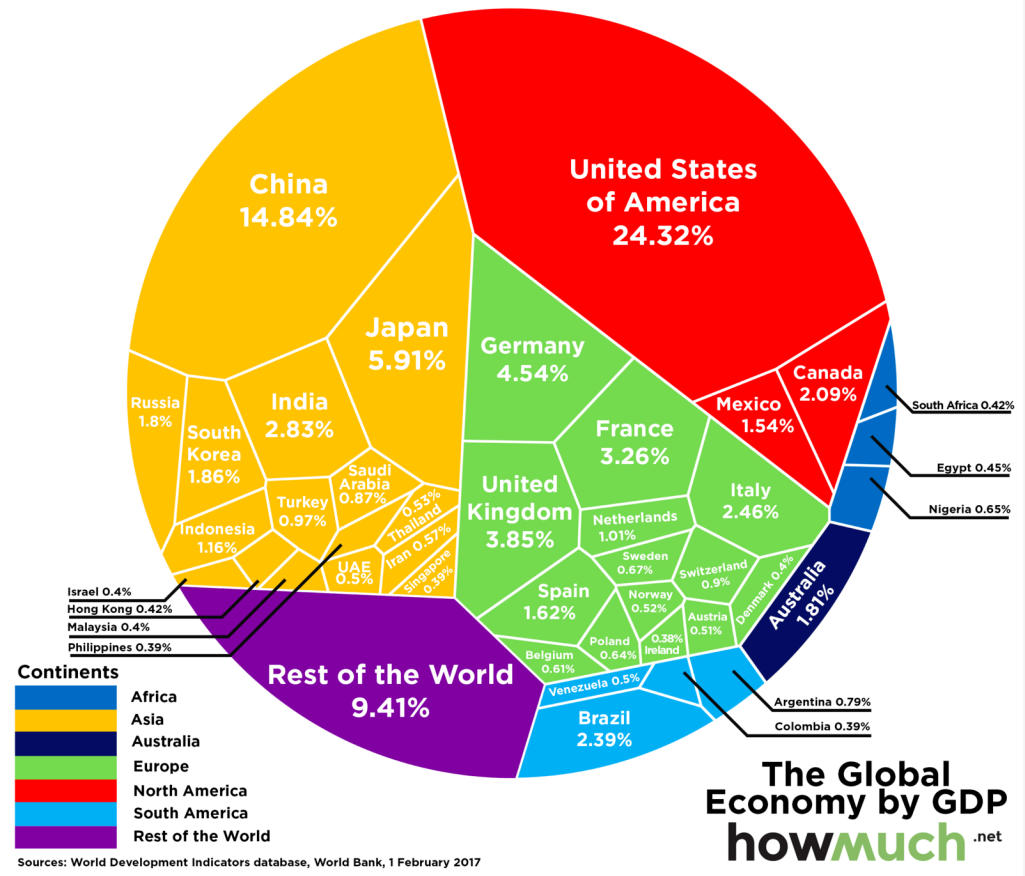
Subprime Crisis (US, Financial institutions, Asset prices (housing and derivatives))

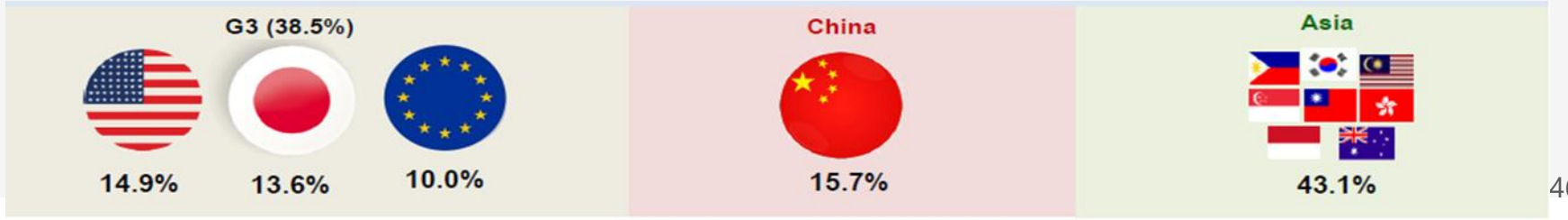
Asian Crisis (Asia, Financial institutions, Currencies, Asset prices)

Covid Outbreak (Worldwide, All sectors particularly real sector, market sentiment)

- Real Sector (goods/services)
- Banking sector / Asset prices (financial)
- Fiscal sector
- (government)

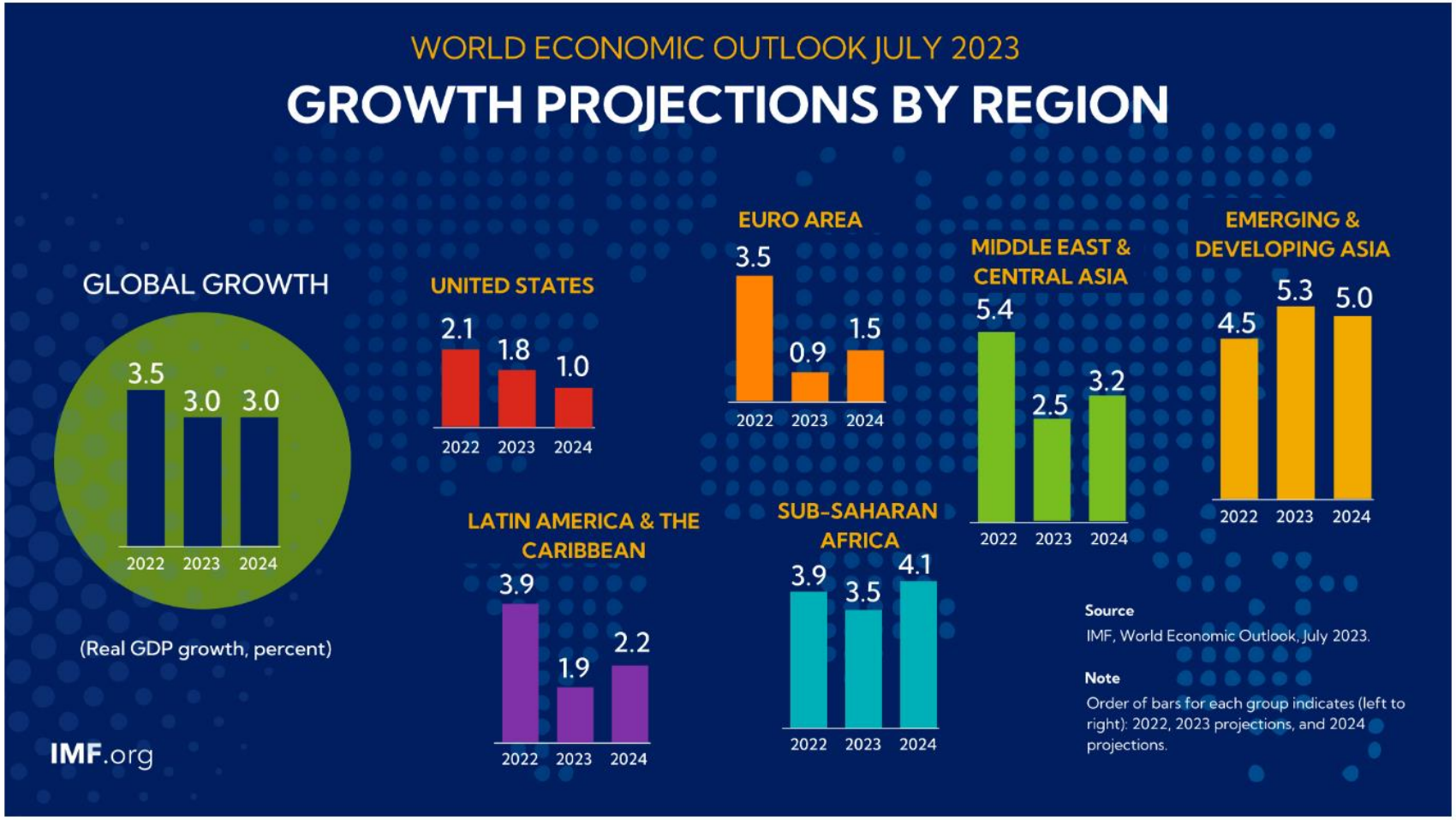
The World Economy (% of GDP)



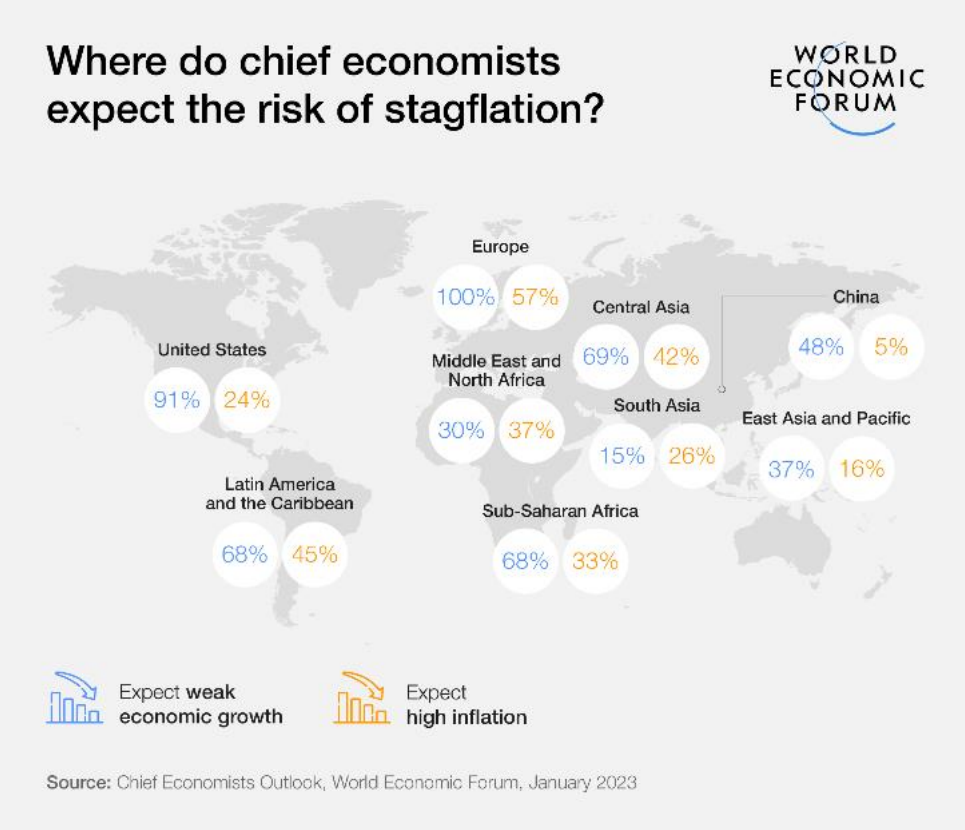


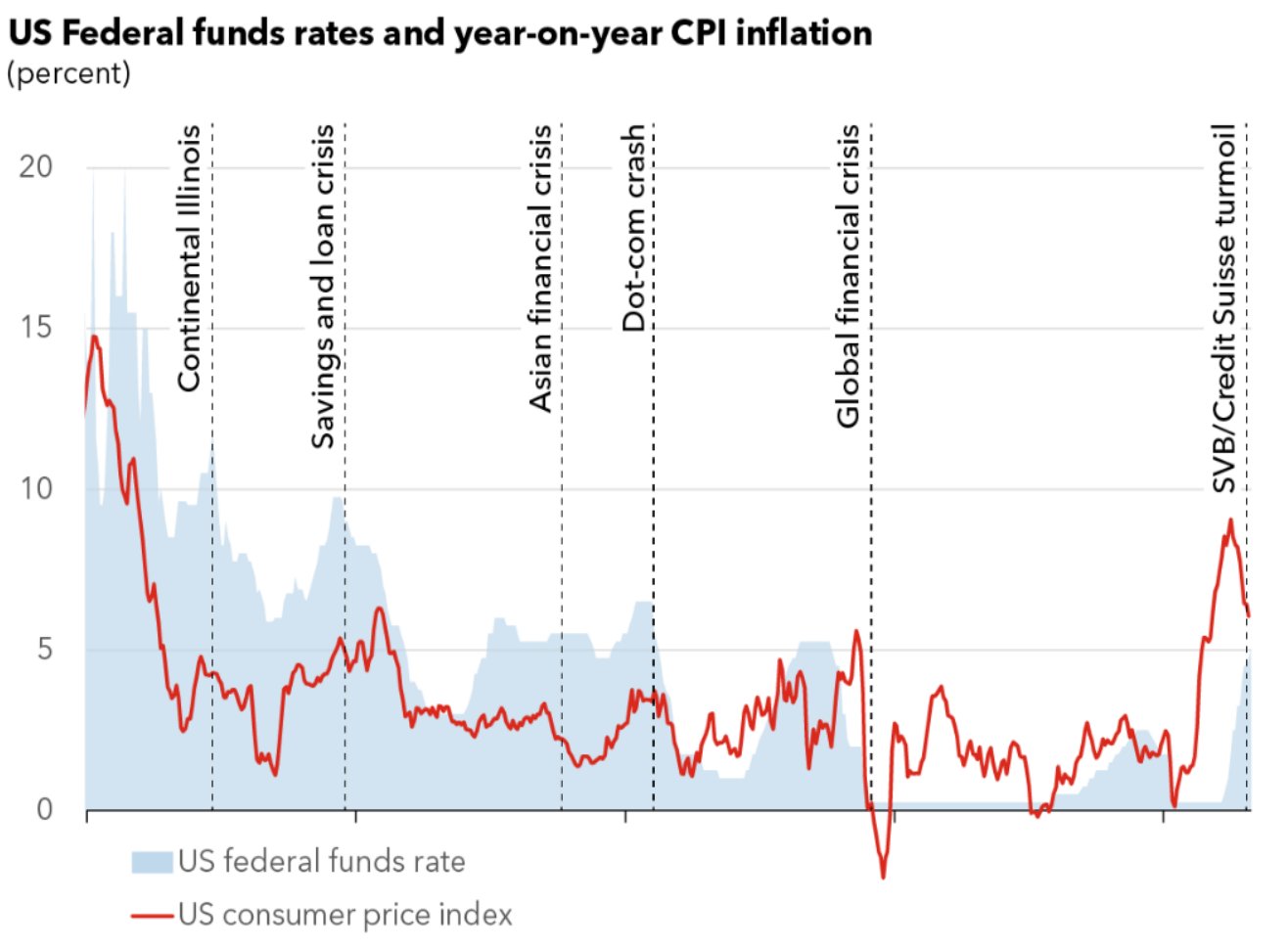
'Weighted by major Thai trades' share in 2014 (7 Asian countries)

World Economic Projectsion



Economic Slowdown and Rising Interest Rates in 2023





Thai Economy 2023

Growth (%YoY)	2022*	2023	2024
GDP Growth	2.6	3.6 (3.6)	3.8 (3.8)
Domestic Demand	4.1	2.5 (2.5)	3.2 (3.3)
Private Consumption	6.3	4.4 (4.0)	2.9 (3.1)
Private Investment	5.1	1.7 (2.1)	4.9 (4.8)
Government Consumption	0.2	-2.8 (-2.2)	1.1 (1.1)
Government Investment	-4.9	2.5 (3.7)	6.8 (7.8)
Export volume of goods and services	6.8	7.3 (6.8)	6.7 (7.4)
Import volume of goods and services	4.1	0.9 (1.4)	5.5 (5.5)
Current account (billion U.S. dollars)	-17.2	6.0 (4.0)	12.5 (12.5)
Value of merchandise exports (%YoY)	5.5	-0.1 (-0.7)	3.6 (4.3)
Value of merchandise imports (%YoY)	15.3	0.7 (1.2)	4.2 (4.2)
Number of foreign tourists (million persons)	11.2	29.0 (28.0)	35.5 (35.0)

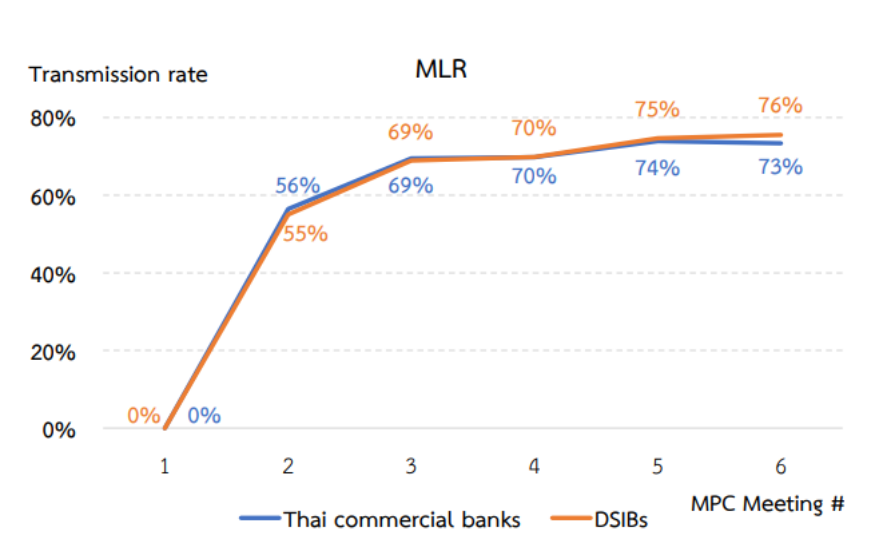
Note: * = outturn; ( ) = previous forecast from Monetary Policy Report Q1-2023

Source: NESDC and BOT forecast

%YOY	Share of exports in 2022[1/] (%)	2022[2/]
US	16.6	2.1
Euro area	6.8	3.5
Japan	8.6	1.0
China	12.0	3.0
Asia[3/]	21.5	3.8
Total[4/]	70.8	2.9

[3/] Asia (ex. Japan and China) includes Singapore (3.6%), Hong Kong (3.5%), Malaysia (4.4%), Taiwan (1.6%), Indonesia (3.6%), South Korea (2.2%), and the Philippines (2.6%)

[4/] Includes UK and Australia



Source: BOT calculation. Transmission rate is calculated using the weighted average loan outstanding (ex. interbank loans) of each commercial bank (data as of 9 June 2023)

Source: Monetary Policy Forum 2/2023

Inflationary Pressures in Major Economies

- War in Ukraine
- Energy crisis
- Soaring production costs
- Some in the US blame it on bank bail outs.

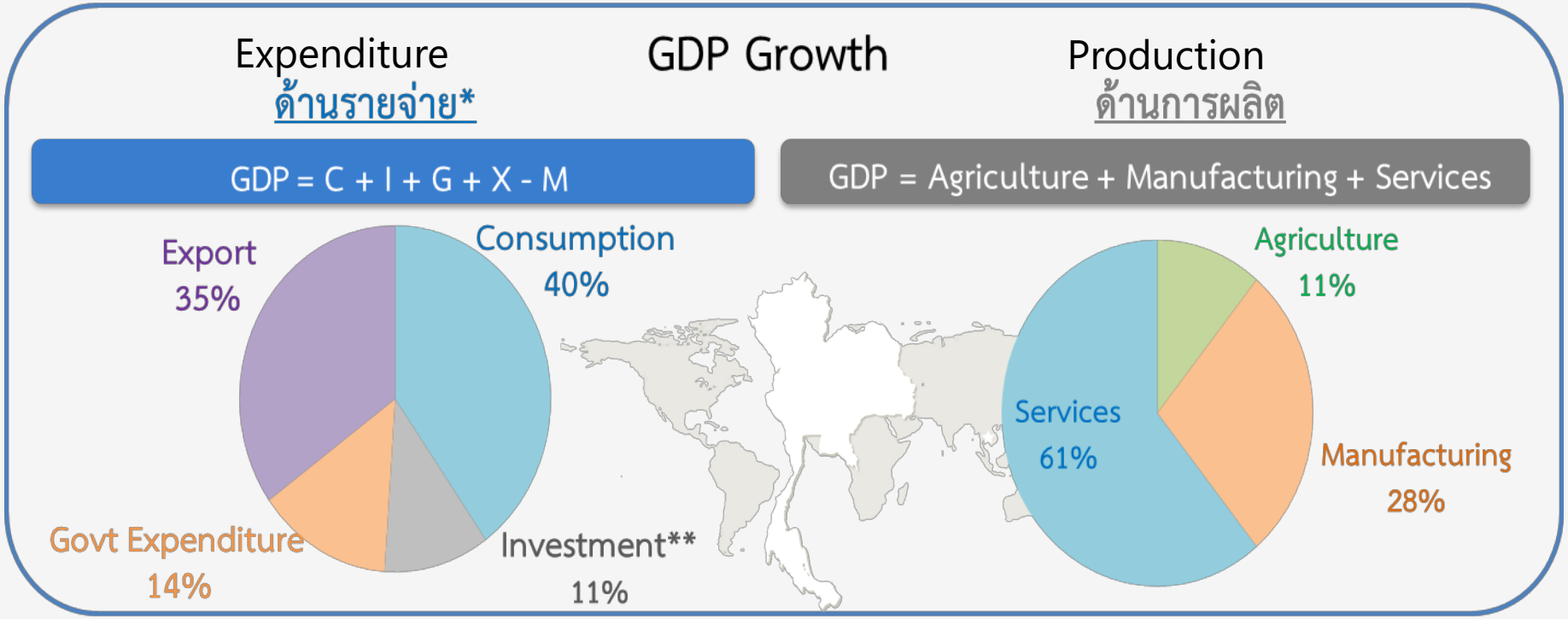
China - facing an electricity shortage in several provinces, due to insufficient coal supply

United States - gas prices have risen by over 150% since the beginning of 2021

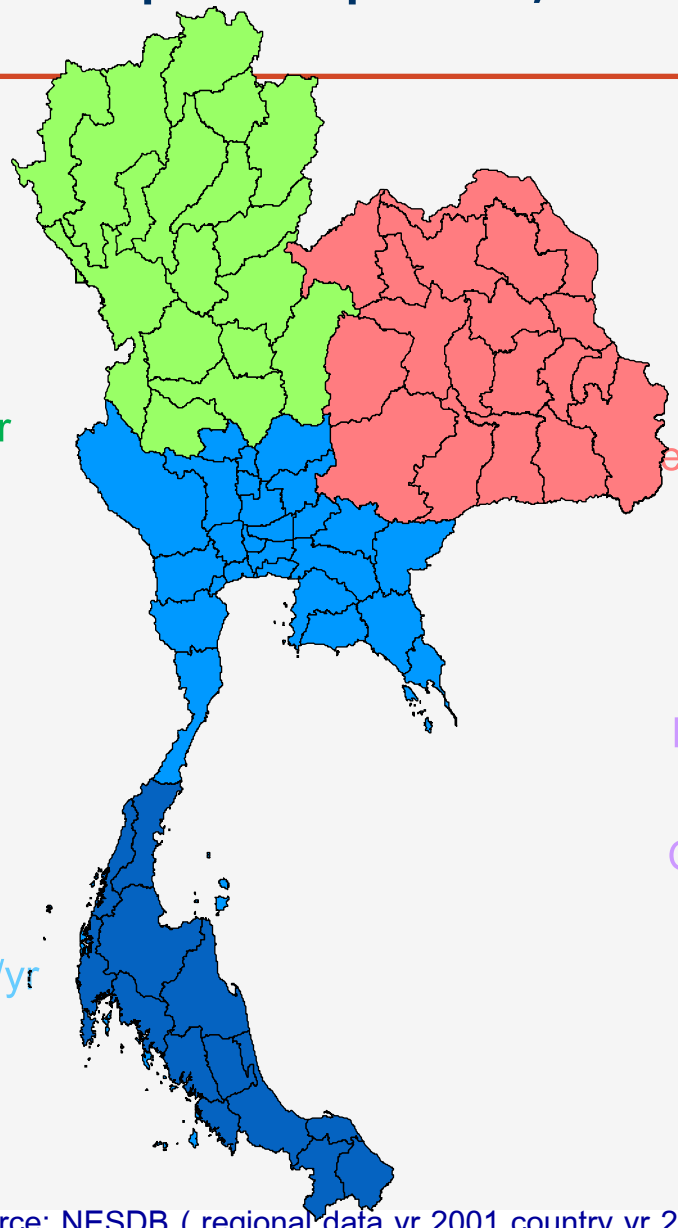
Europe – energy consumption includes 38% from oil, 23% from natural gas and 13% from coal and nuclear energy for only 11%.
(43.5% of coal, 26.8% of unrefined oil and 34.3% of natural gas imported into Europe was of Russian origin)

GDP Growth (Demand and Supply)

Demand (Expenditure) | Supply (Income)



Thailand's Economy in 2001
(GDP per capita 1,893 USD)



Northern region
Land area = 169,600 kilo
Population = 11.26 mil
GRP = 454,401 mil baht
(8.9% of GDP)
Revenue = 40,352 baht/person/yr

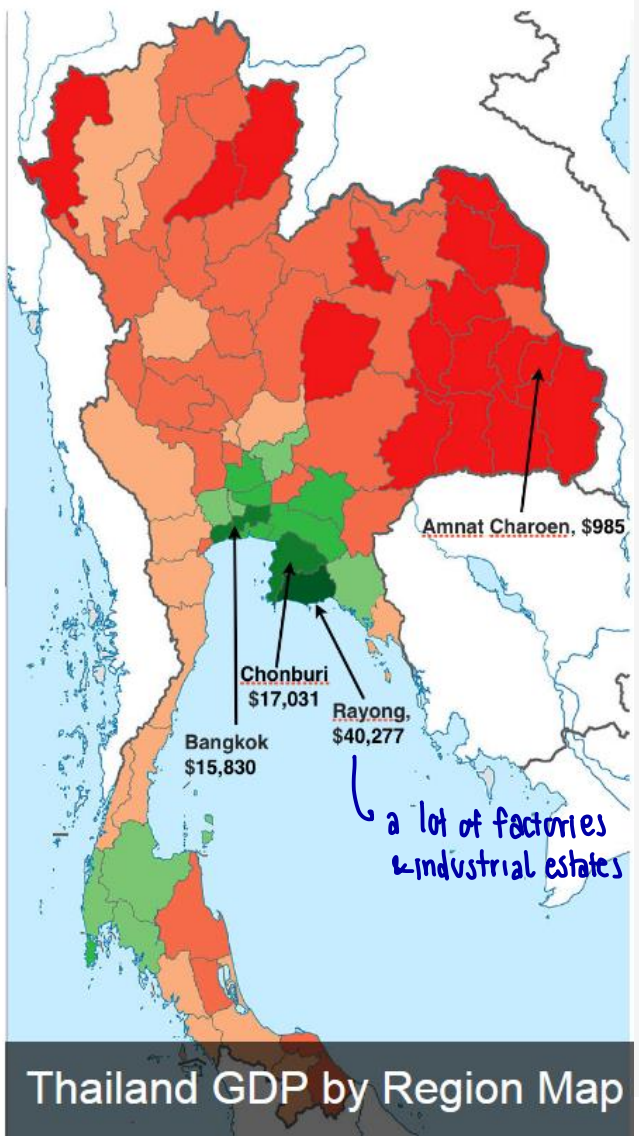
Northeast region
Land = 168,854 kilo
Population = 21.20 mil
GRP = 580,593 mil baht
(11.3% of GDP)
evenue = 27,381 baht/person/yr

Middle region
Land area = 103,946 kilo
Population = 22.02 mil
GRP = 3,631,992 mil baht
(70.9% of GDP)
Revenue = 164,911 baht/person/yr

Southern region
Land area = 70,715 kilo
Population = 8.43 mil
GRP = 456,432 mil baht
(8.9% of GDP)
Revenue = 54,176
baht/person/yr

Source: NESDB (regional data yr 2001 country yr 2001 and 2003), NSO (yr 2001 and 2003)

Thai GDP per capita 2011



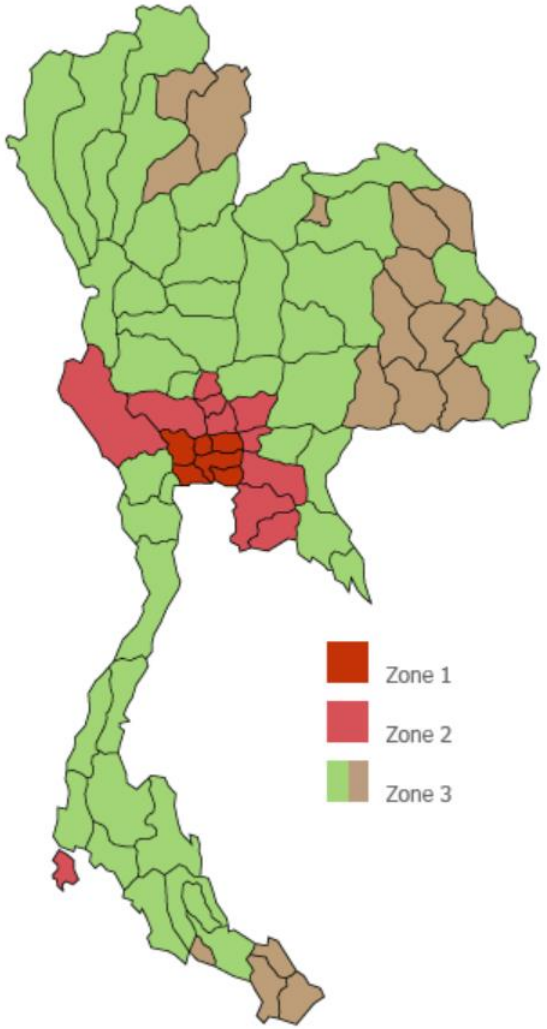
Map of Thai provinces by GDP per capita in 2011. National average is 5,362 USD.

- < 1,500
- 1,500 - < 3,000
- 3,000 - < *5,362*
- *5,362* - < 10,000
- 10,000 - < 15,000
- 15,000 - < 20,000
- > 20,000+

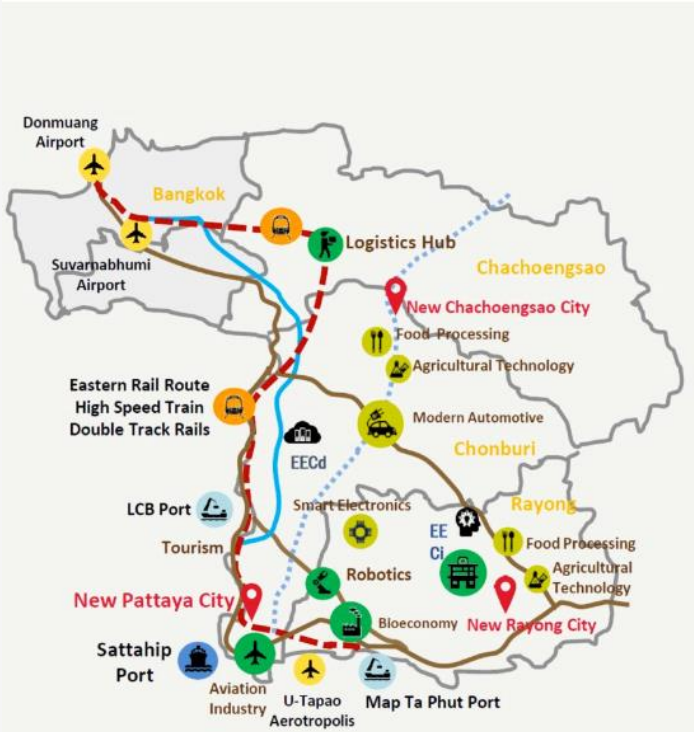
Industrial Promotion in Thailand

Industrial Promotion Zones

A wide range of additional tax and non-tax incentives are also offered to industrial investors located in different zones, with the highest privileges reserved for those operating in Zone 3, in order to achieve the aims of the government's decentralization policy.



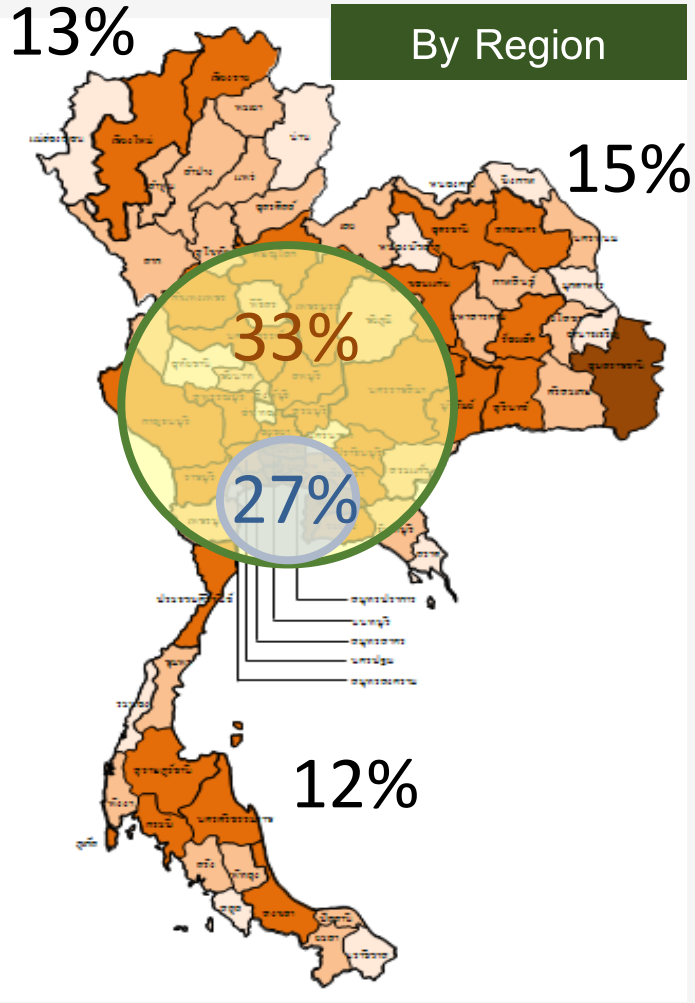
- Land can be owned on a freehold basis
- Foreign technicians/experts can work on the project
- Foreign technicians/experts and their families can live in Thailand
- Foreign currency can be remitted abroad
- Exemption from taxation
- Reduction of import/export duties



The government has launched measures to support and accelerate the economic growth, for instance, measures to develop public utilities, transportation systems, logistics, human resources, and investor's facilitation in the form of One-Stop Service Center.

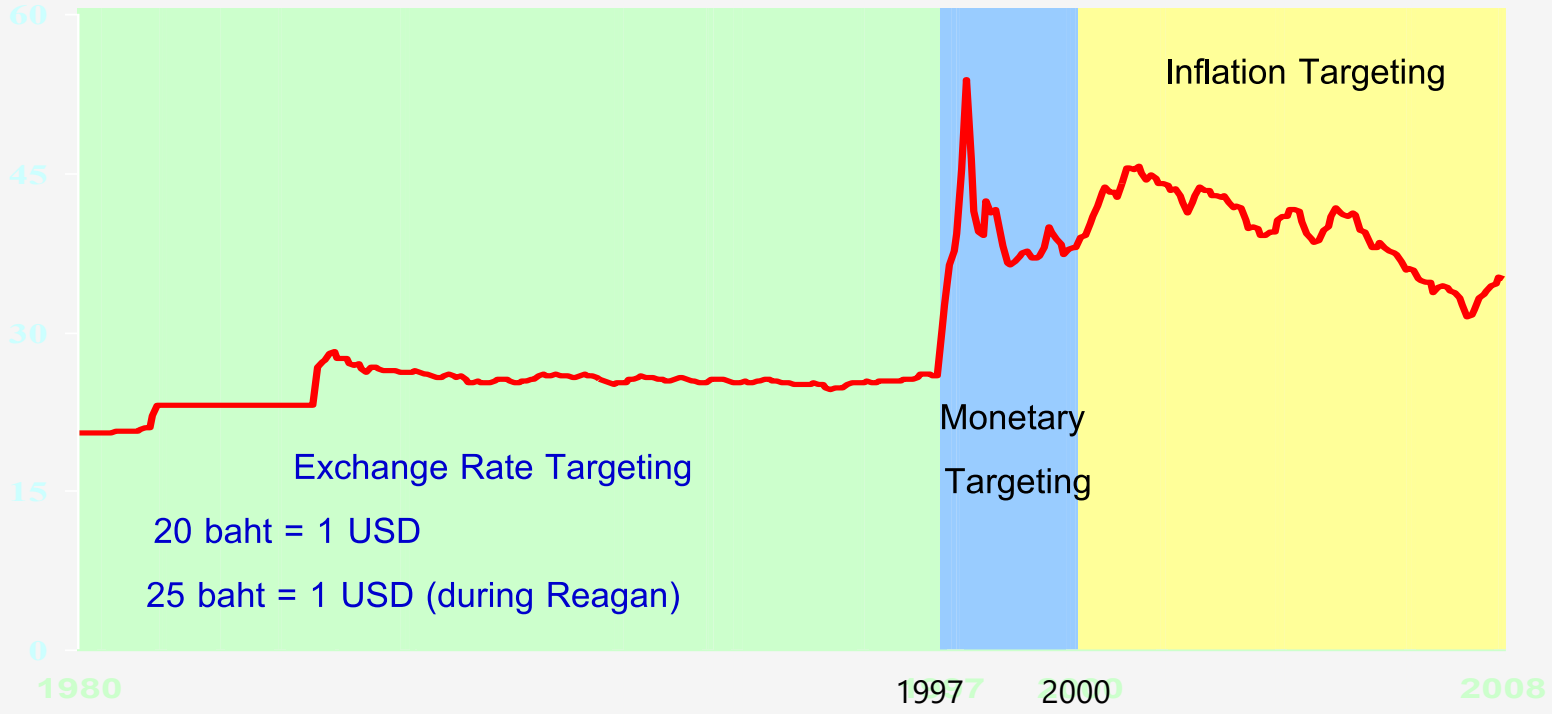
http://www.ieat.go.th/en/investment/about-industrial-estates/industrial-estates-in-thailand

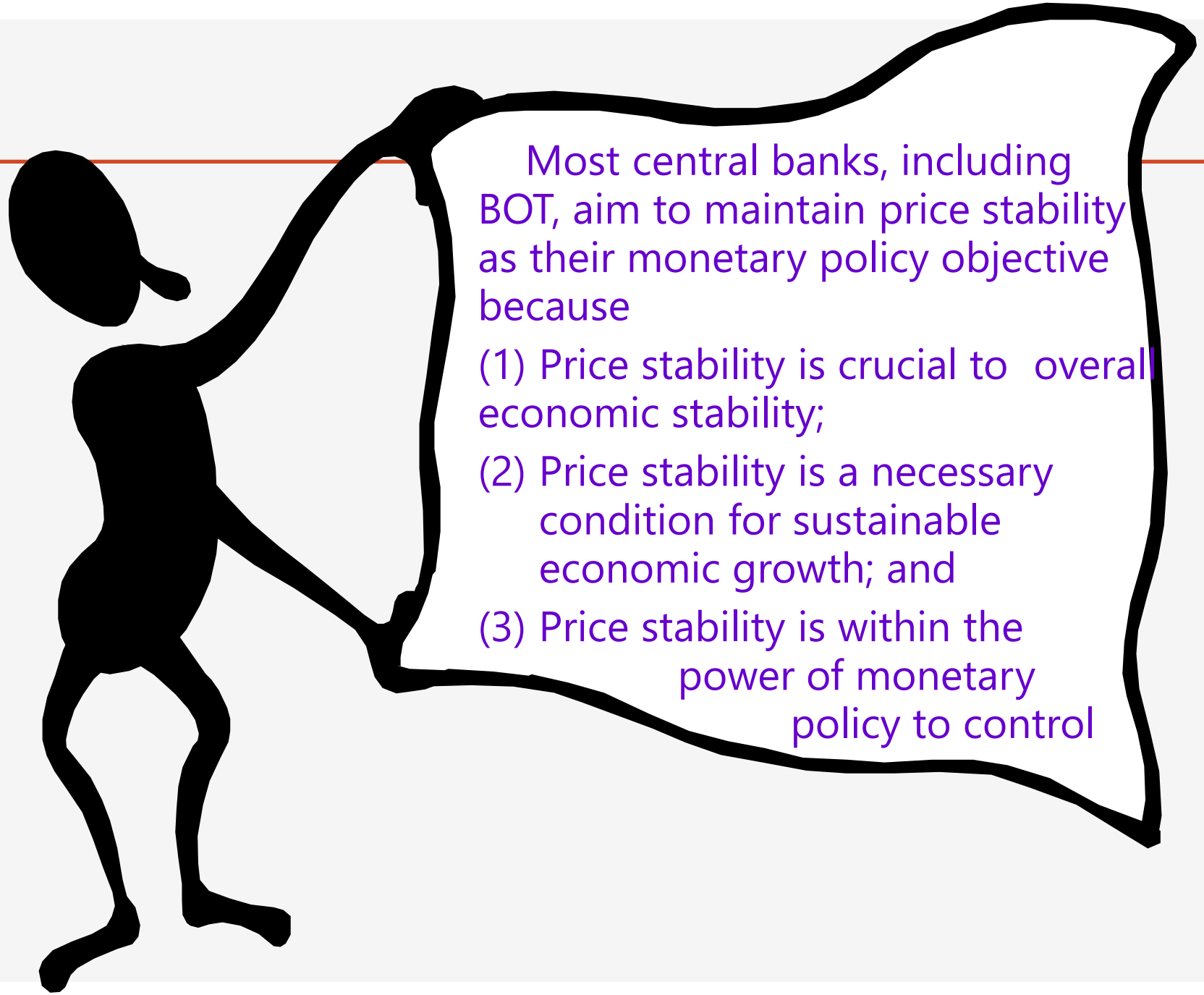
SMEs in Thailand



Monetary Policy Framework

Thailand's Monetary Policy Framework





Most central banks, including BOT, aim to maintain price stability as their monetary policy objective because

(1) Price stability is crucial to overall economic stability;

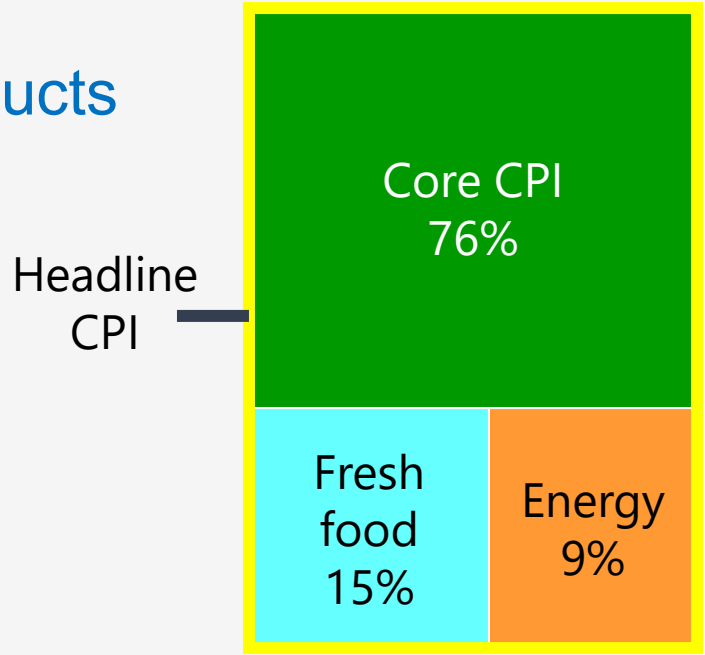
(2) Price stability is a necessary condition for sustainable economic growth; and

(3) Price stability is within the power of monetary policy to control

Link between Policy Rate and Inflation

Core inflation is the change in Core CPI, which is Headline inflation excluding fresh food and energy items (roughly 24% of the CPI basket):

- Rice, flour and flour products
- Meat, poultry and fishery products
- Vegetables and fruits
- Eggs and dairy products
- Gasoline
- Electricity and cooking gas



How Monetary Policy Transmit Through the Real Economy

Monetary policy affects the real economy through 5 main channels:

1. Interest rate channel
2. Credit channel
3. Asset price channel
4. Exchange rate channel
5. Expectations channel

1. Interest Rate Channel

More accommodative monetary policy: (1) lower policy interest rate, or (2) higher growth of the monetary base

Softening market interest rates

Lower costs of consumption and investment

Higher demand for consumption and investment

Faster expansion of economic activities

Accelerating inflation

2. Credit Channel

More accommodative monetary policy:
(1) lower policy interest rate,
or (2) higher growth
of the monetary base

→

Softening market interest rates

→

Declining debt burden for firms

Stronger financial status of firms

↓

Banks more willing to extend loans to firms

←

Accelerating inflation

Faster expansion of economic activities

3. Asset Price Channel

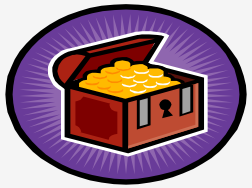
More accommodative monetary policy:
(1) lower policy interest rate,
or (2) higher growth
of the monetary base

Softening market interest rates

People shift towards other means of savings rather than bank deposits

Better economic conditions enhance returns on assets

People feel more wealthy



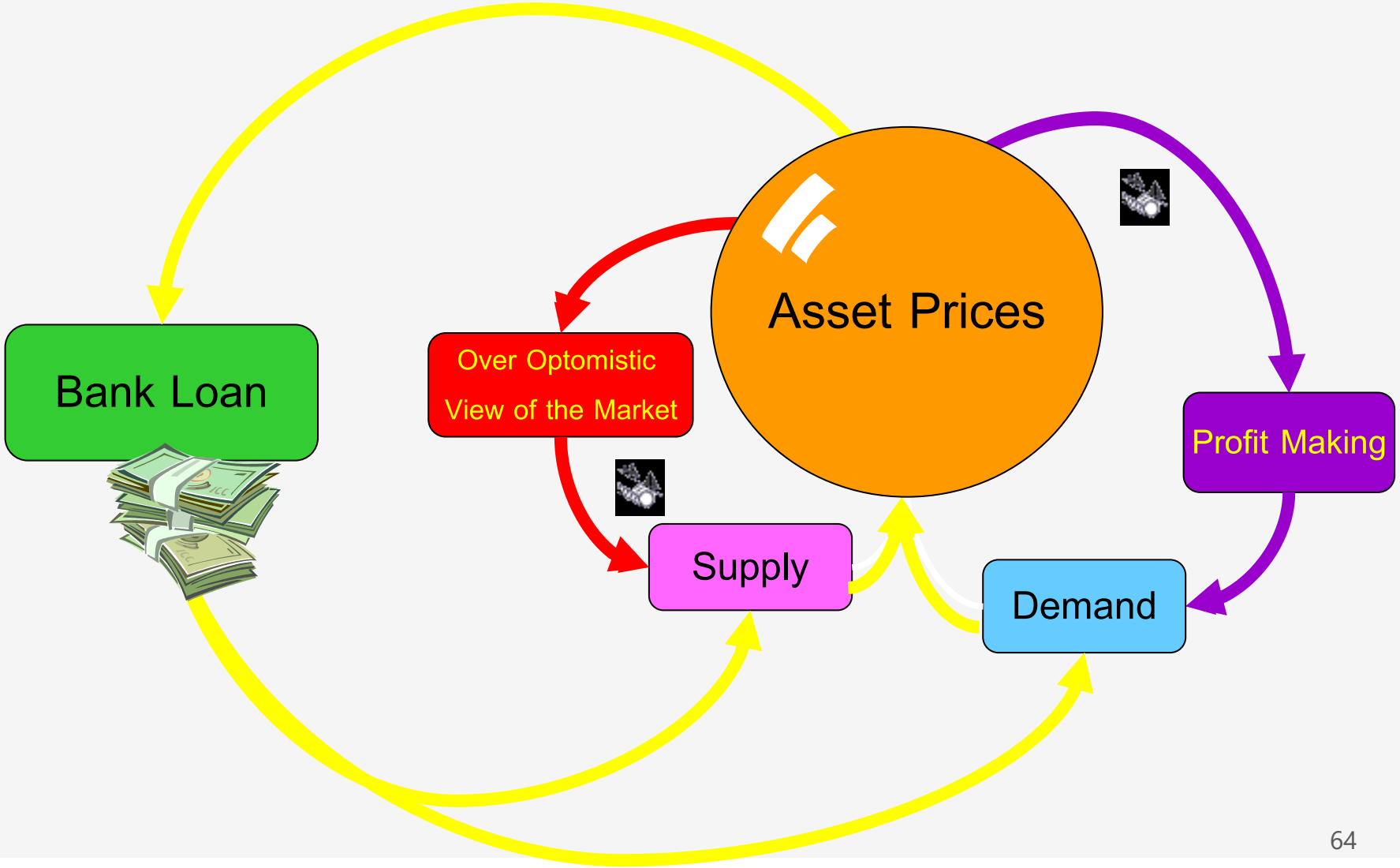
Asset prices rise

Accelerating inflation

Consumers spend more

Faster expansion of economic activities

Asset Price Bubbles

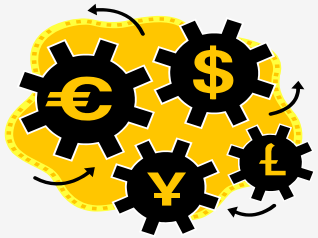


4. Exchange Rate Channel

More accommodative monetary policy:
(1) lower policy interest rate, or (2) higher growth of the monetary base

Smaller interest rate differential with the rest of the world

Capital outflows



Weakened exchange rate

Faster export growth

Slower import growth

Greater demand for production resources

Faster expansion of economic activities

Accelerating inflation

5. Expectations Channel

More accommodative monetary policy:
(1) lower policy interest rate,
or (2) higher growth
of the monetary base

People expecting more favorable economic conditions

Stronger growth of consumption and investment

Faster expansion of economic activities

Accelerating inflation

People expecting worse economic conditions

Weaker growth of consumption and investment

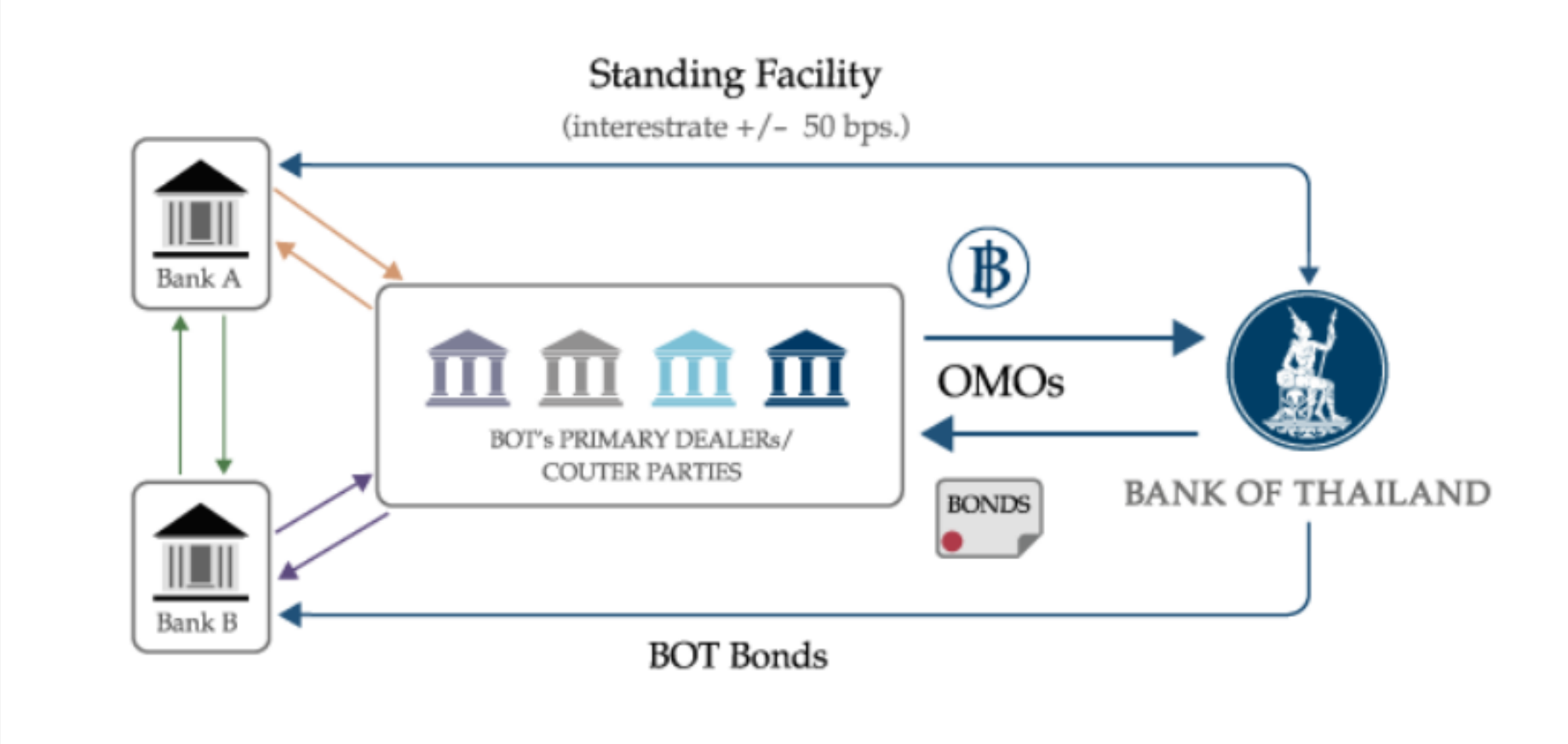
Slower expansion of economic activities

Decelerating inflation

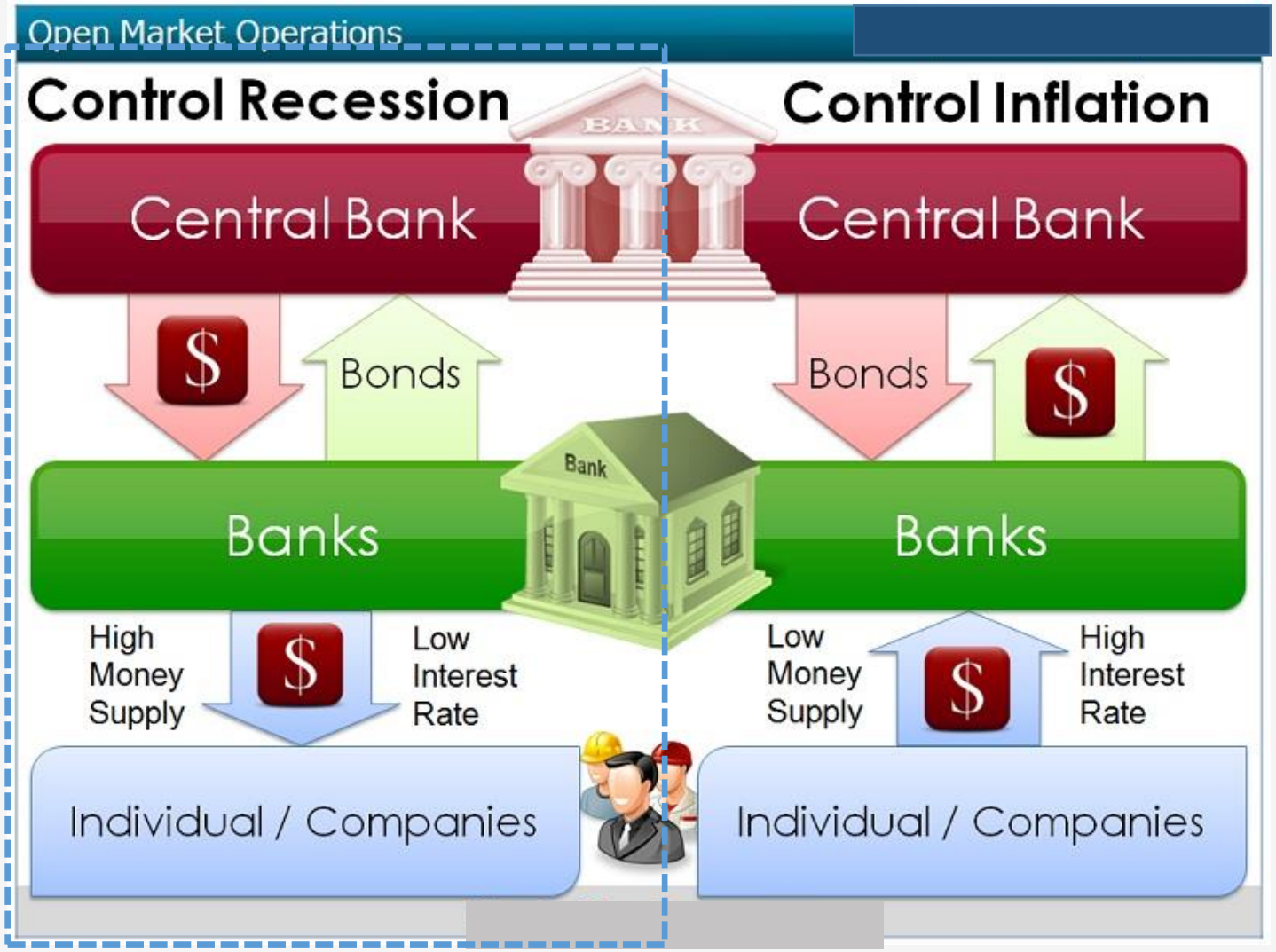
Monetary Policy effect on Financial Institutions

- BOT is responsible for maintaining money market liquidity at a level consistent with the policy interest rate set by the MPC
- Liquidity management is done through 3 main channels:
    1. Open Market Operations (OMOs)
    2. Standing facilities
    3. Reserve requirement

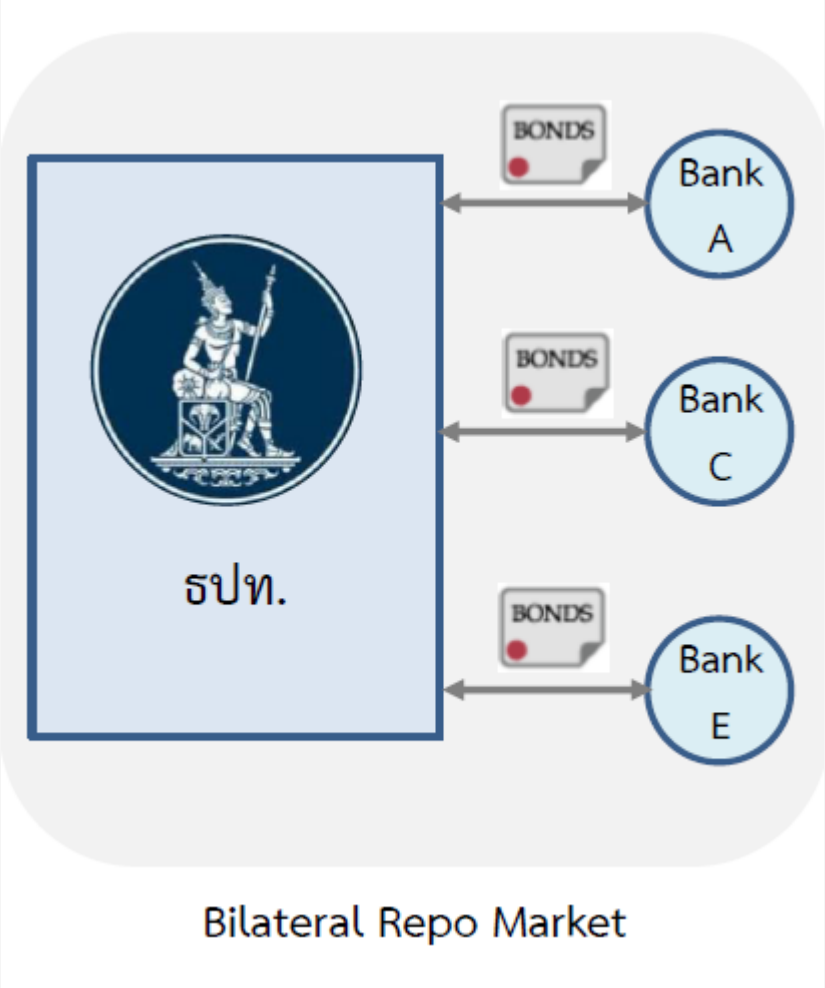
Standing Facility for Banks (OMO)



Open Market Operations (General Case)



Policy Interest Rate (Bilateral Repo Market)



1.75%

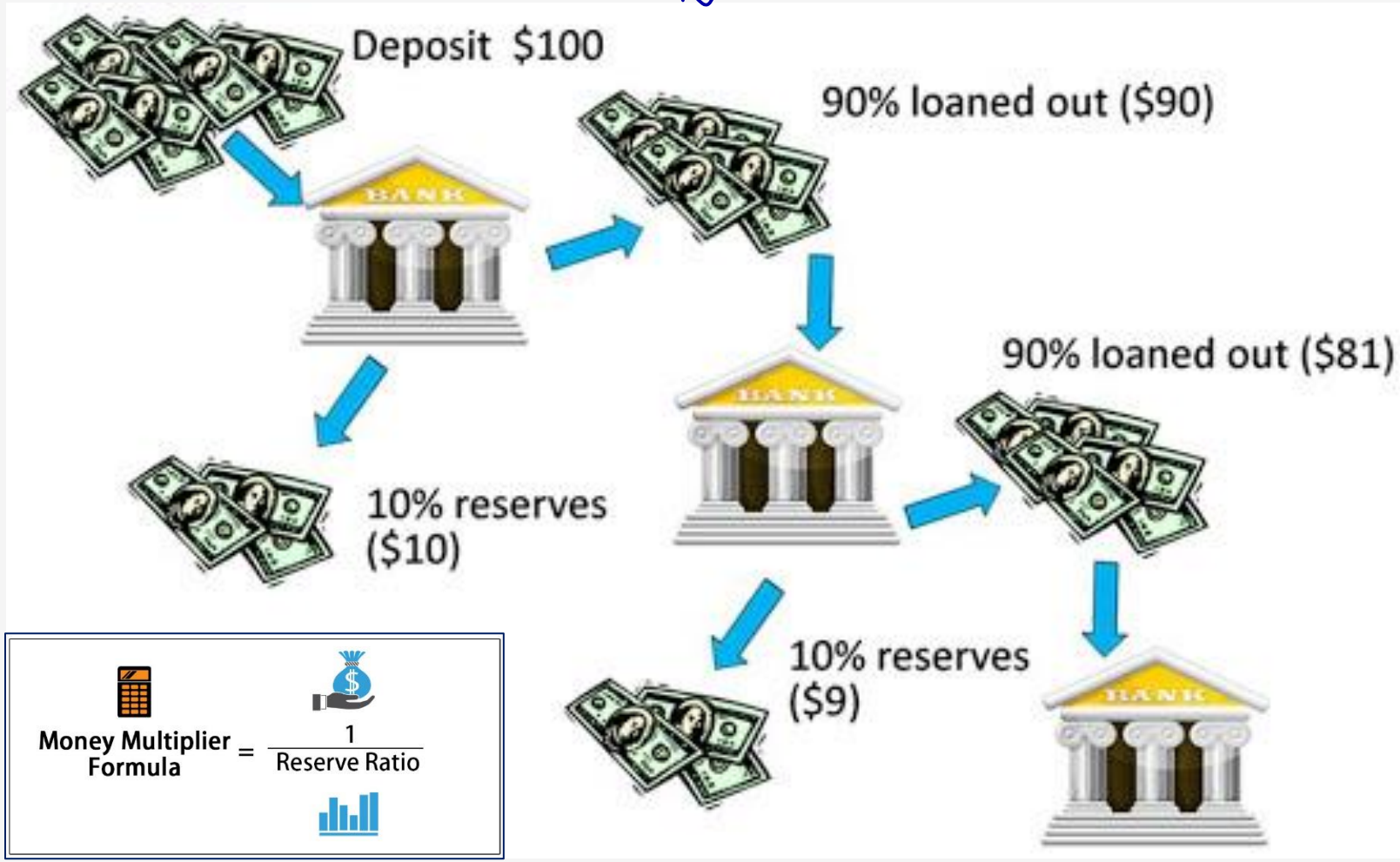
6%-18%

higher int rate because of risk

- land & house can't be more
  ↳ lower borrowing rate compared to car loan

Reserve Requirement (assume 10%)

money multiply



$$\text{Money Multiplier Formula} = \frac{1}{\text{Reserve Ratio}}$$

Financial Stability and Supervision

Important Risks of Financial Institutions

- **Strategic Risk**
- **Credit Risk**
- **Market Risk**
- **Liquidity Risk**
- **Operational Risk**
- **Effects on capital and operational status**

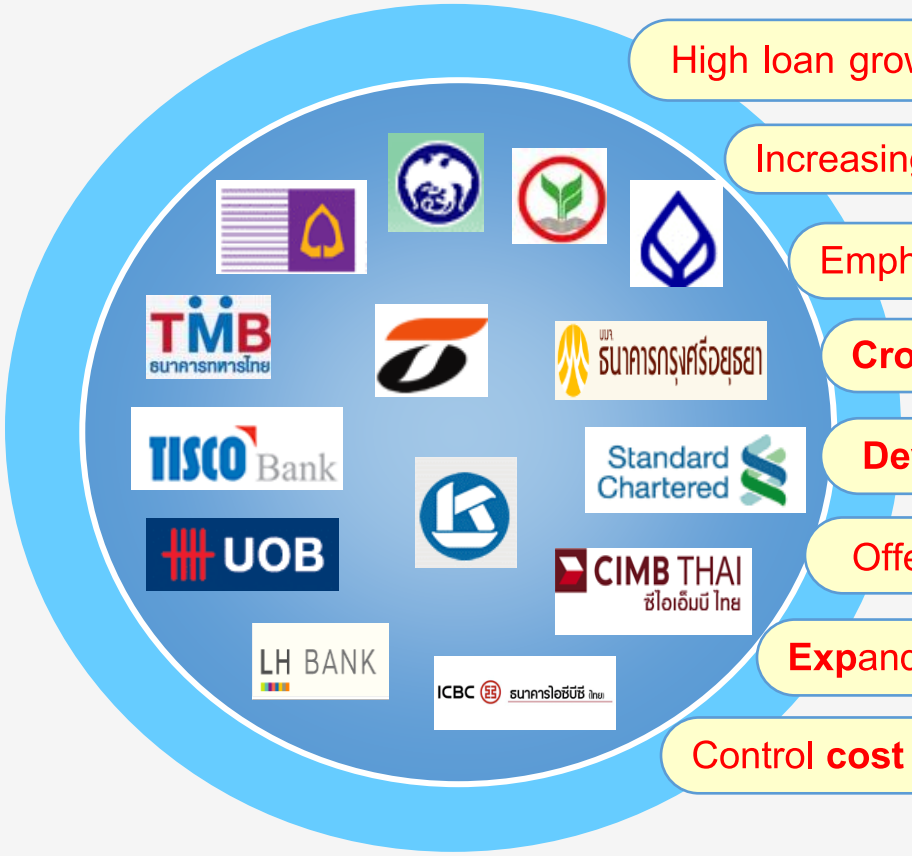
Definition of Strategic Risk

definition

strategic risk

Risks arising from policies, strategic plans,implementation plans that is not consistent with the internal and external factors. This may have an adverse effect on income, capital income and stability of the business.

Business Strategy



- High loan growth targets
- Increasing Loan amts to all groups (Large, retail, **and SME**
- Emphasis on TDR so that it does not become **NPL**
- **Cross sell to bu**siness within the group to increase fees
- **Develop IT system** and risk management
- Offering new products
- **Exp**and customer base, branches and **ATM**
- Control **cost and manage interest spread**

Definition of Credit Risk

definition

credit risk

Opportunity or probability that the customer can not fulfill the agreed obligation. This includes the probability that the customer credit risk is downgraded which will affect the income and capital of the FI.

SET 50 Companies

50 Companies in Thailand SET50 Index

Logo	Company Name	Sector	Stock Symbol
AIS	Advanced Info Service	Telecommunications	ADVANC
AOT	Airports of Thailand	Transportation & Logistics	AOT
	Bangkok Airways	Transportation & Logistics	BA
BANPU	BANPU	Energy & Utilities	BANPU
	Bangkok Bank	Finance	BBL
	Bangchak Petroleum	Energy & Utilities	BCP
BDMS	Bangkok Dusit Medical Services	Healthcare	BDMS
	BEC World	Media & Publishing	BEC
	Bumrungrad Hospital	Healthcare	BH
	Bangkok Life Assurance	Finance	BLA
BTS	BTS Group Holdings	Transportation & Logistics	BTS
	Carabao Group	Food & Beverages	CBG
	Central Plaza Hotel	Tourism & Leisure	CENTEL
	CH. Karnchang	Construction Services	CK
CPALL	CP All	Commerce	CPALL
CPF	Charoen Pokphand Foods	Food & Beverages	CPF
CPN	Central Pattana	Real Estate	CPN
DELTA	Delta Electronics (Thailand)	Electronic Components	DELTA
dtac	Total Access Communication	Telecommunications	DTAC
EGCO	Electricity Generating	Energy & Utilities	EGCO
GLOW	Glow Energy	Energy & Utilities	GLOW
HOMEPRO	Home Product Center	Commerce	HMPRO
INTOUCH	Intouch Holdings	Telecommunications	INTUCH
IRPC	IRPC	Energy & Utilities	IRPC
ITD	Italian-Thai Development	Construction Services	ITD
INDORAMA	Indorama Ventures	Petrochemicals & Chemicals	IVL
JAS	Jasmine International	Telecommunications	JAS
K	Kasikornbank	Finance	KBANK
	Krung Thai Bank	Finance	KTB
	Land and Houses	Real Estate	LH
MK	MK Restaurant Group	Food & Beverages	M
MINOR	Minor International	Food & Beverages	MINT
	Pruksa Real Estate	Real Estate	PS
	PTT	Energy & Utilities	PTT
PTTEP	PTT Exploration and Production	Energy & Utilities	PTTEP
	PTT Global Chemical	Petrochemicals & Chem.	PTTGC
	Robinson Department Store	Commerce	ROBINS
	Srisawad Power 1979	Finance	SAWAD
SCB	The Siam Commercial Bank	Finance	SCB
SCG	The Siam Cement	Construction Materials	SCC
	Siam City Cement	Construction Materials	SCCC
TIPCO	TIPCO Asphalt	Construction Materials	TASCO
	Thanachart Capital	Finance	TCAP
TMB	TMB Bank	Finance	TMB
	Thai Oil	Energy & Utilities	TOP
TPIPL	TPI Polene	Construction Materials	TPIPL
true	True Corporation	Telecommunications	TRUE
TTW	TTW	Energy & Utilities	TTW
Thai Union	Thai Union Group	Food & Beverages	TU
WHA	WHA Corporation	Real Estate	WHA

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Definition of Market Risk

definition

market risk

Risks from changes in interest rates, foreign exchange rates, equity prices and commodity prices. This may be due to the positions on and off balance sheet in the trading book, banking book and/or the bank account. which may have a negative impact on revenue and its capital.

Example of Market Risk

BARINGS BANK

- A bank with a history of 233 years collapsed because of imprudent use of derivatives.
- One of the traders Nick Leeson, who was basically responsible to make arbitrage profits on Stock Index Futures on Nikkei 225 on the Singapore and Osaka exchanges.
- Instead of looking for arbitrage opportunities, the trader started making bets on the index and went long the futures.
- Unfortunately the market fell by more than 15% in the 1995 leading to margin calls on his positions.
- Because of his influence on the back office, he was able to hide the actual position and sold options to make for the margin calls.
- But his view on the market proved to be wrong and losses mounted to an unmanageable amount.

Definition of Liquidity Risk

definition

liquidity risk

Risk that the FI is unable to pay debts and obligations upon maturity, resulting from being unable change its assets into cash or not able to find enough funding or cost of funding is too high. This may affect the income and capital of the FI.

Definition of Operational Risk

definition

operational risk

Risk of damage as a result from internal processes, personnel and systems or from outside events of the financial institution. This may affect the income and capital of the Company.

Operational Risk

Example of Operational Risk

Financial Consumer Protection Center

Call 1213

Financial Consumer Protection Center

BANK OF THAILAND

Thank you