

Lecture 11: Monetary Policy in Thailand

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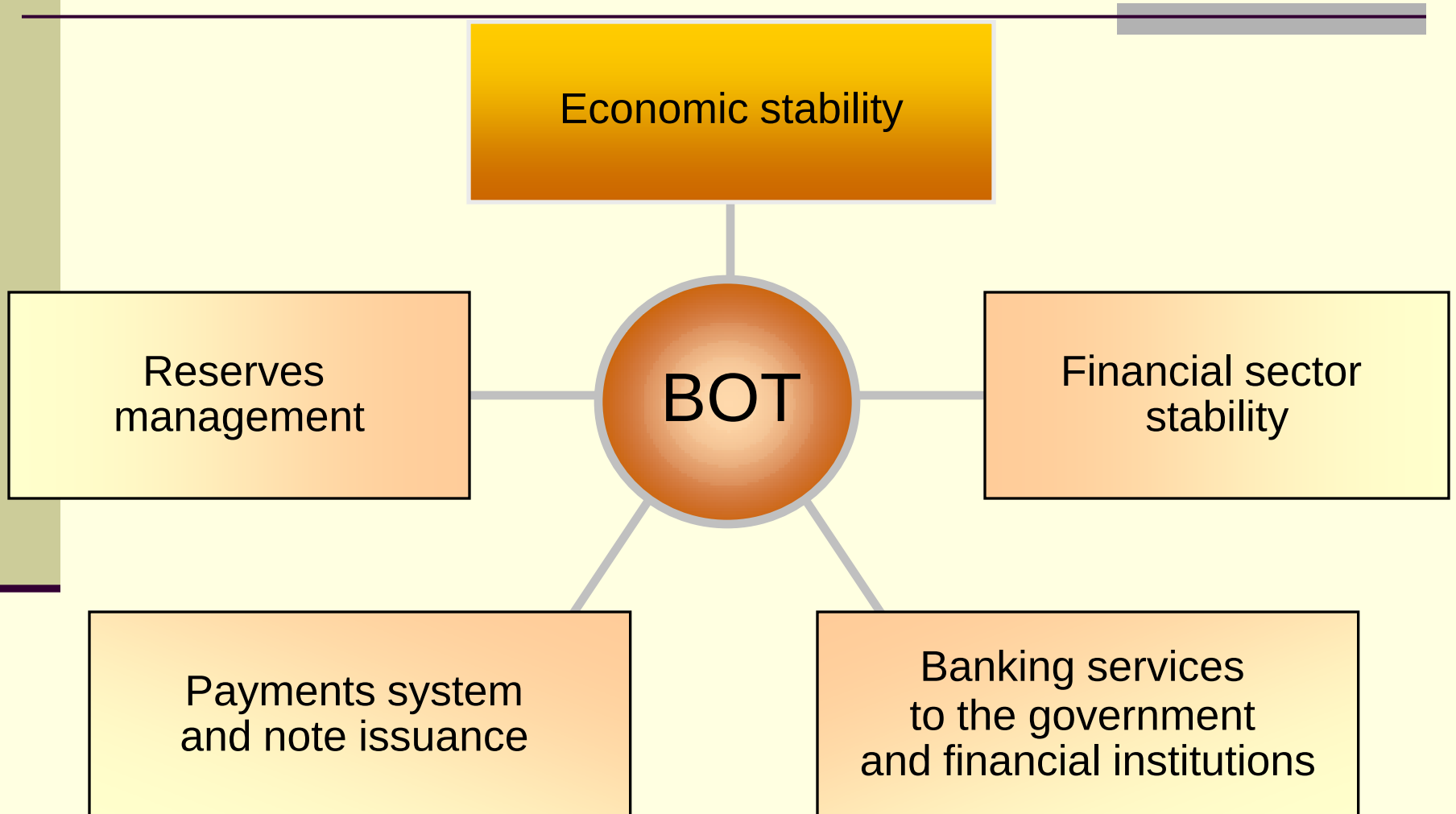
March 30, 2013

Outline

- **BOT's role in safeguarding economic stability**
- **Inflation targeting as a monetary policy framework**
- **Recent MPC decision, Inflation and Growth Forecast**
- **Transmission Mechanism: the Thai experience**
- **Exchange rate policy under inflation targeting**

BOT's role in safeguarding economic stability

BOT's Roles



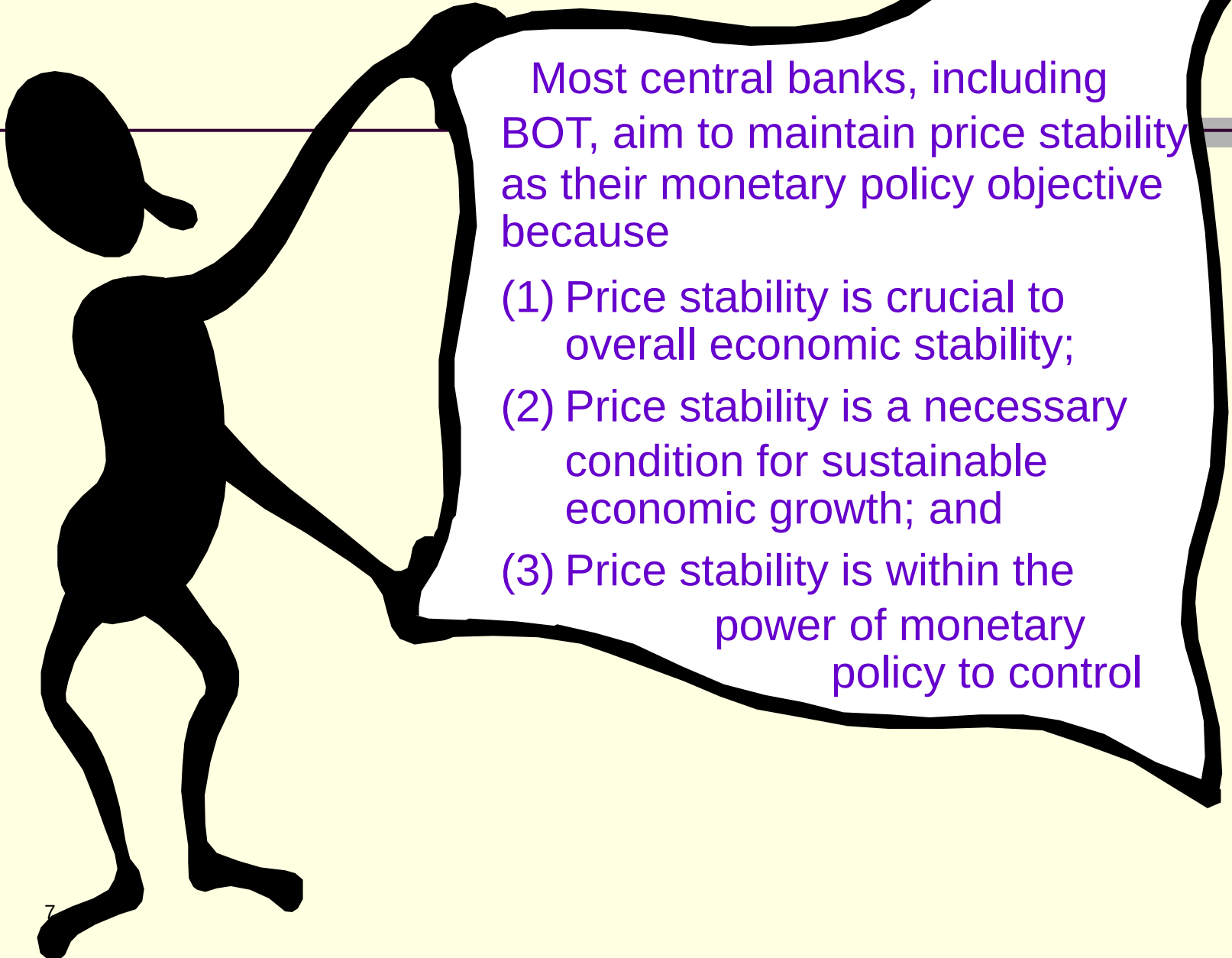
BOT uses monetary policy to maintain macroeconomic stability



- **Price stability refers to an environment where inflation is at a level that does not negatively affect households and businesses in their decision making**
- **Price stability preserves consumers' purchasing power**
- **Price stability supports national competitiveness**
- **Price stability encourages long-term consumption, production and investment planning**
- **Without price stability, an economy is likely to suffer from other stability concerns**

Most central banks aim to maintain price stability as their monetary policy objective

Country	Inflation Targeter	Price stability mandate	Secondary objective: Economic growth
Australia	✓	✓	✓
Brazil	✓	✓	
Canada	✓	✓	✓
Euro Area		✓	
Hong Kong	Currency Board	✓	
India		✓	
Indonesia	✓	✓	
Japan	✓ (from Feb 12)	✓	
Korea	✓	✓	
Malaysia		✓	✓
Mexico	✓	✓	
New Zealand	✓	✓	
Philippines	✓	✓	
Singapore	Exchange rate targeting	✓	✓
Sweden	✓	✓	
Thailand	✓	✓	✓
UK	✓	✓	✓
US (dual mandate)	Just do it	✓	✓

A black silhouette of a person is shown from the side, holding a large, white, irregularly shaped banner with both hands. The banner contains text in purple. The background is a light yellow color with a thin horizontal purple line.

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



Inflation targeting as a monetary policy framework

Inflation Targeting

An inflation-targeting (IT)

Central bank announces inflation as the target of monetary policy and changes the policy interest rate to keep inflation at the specified target.

Key aspects of IT are systematic monetary policy process and transparent communication with the public.

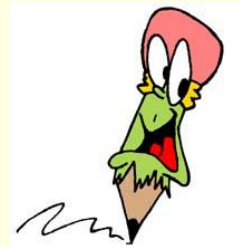
IT was first introduced in NZ in 1990 and has gained increasing popularity since.



Strengths of Inflation Targeting

1. Set a numerical inflation target and announce it to the public ahead of time
2. Emphasize transparency, especially the communication of timely and accurate information
3. Demand accountability from the central bank in case the inflation target cannot be delivered
4. Involve the development of forecasting tools
5. State clearly the policy interest rate to enhance the clarity of policy signal

Transparency
of the decision-
making process
and policy
accountability
help to build credibility
of the central bank



Potential Drawbacks of Inflation Targeting

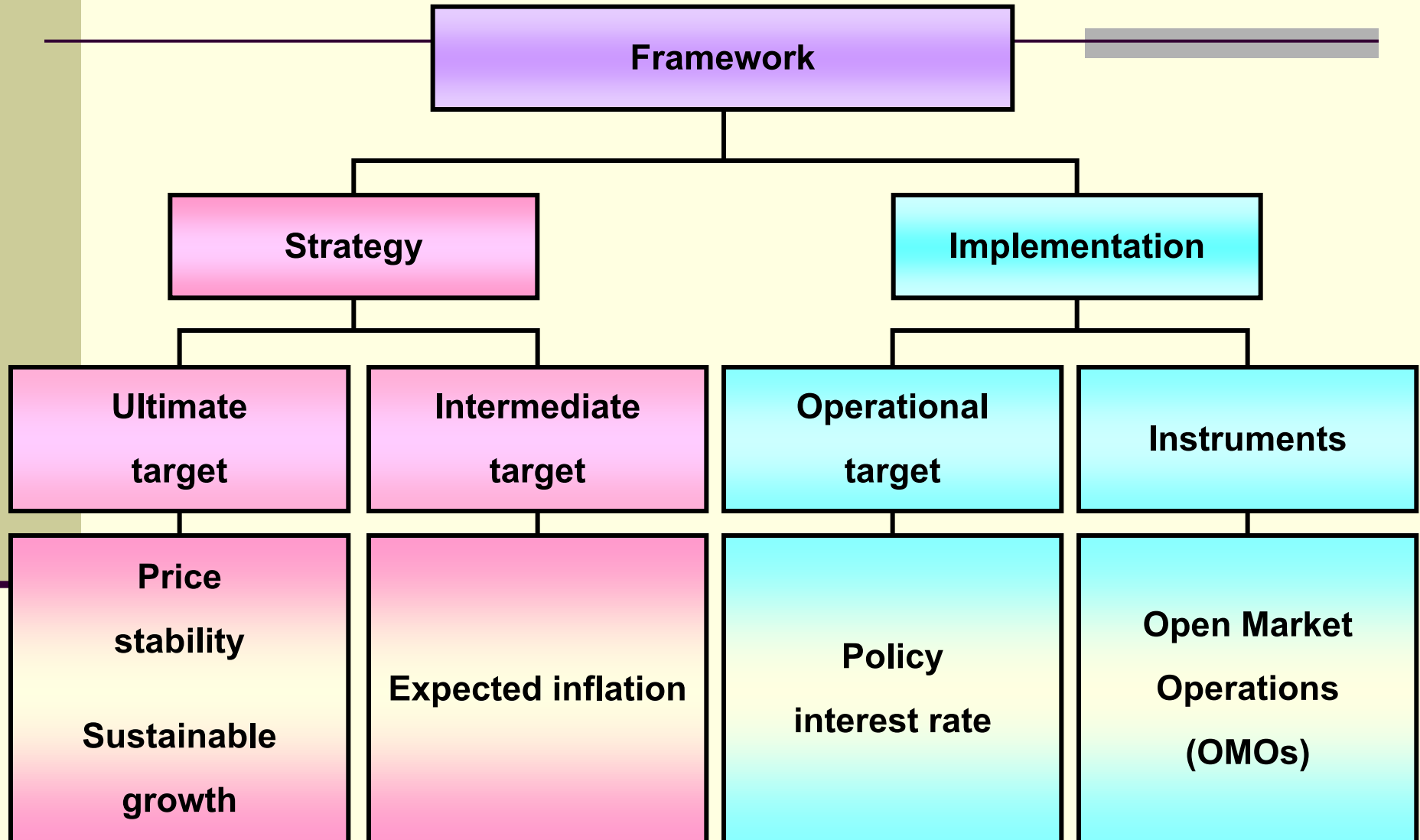


1. **Long policy transmission lag to the stated target requires forecasting capability and pre-emptive policy moves**
2. **Focus on inflation alone may induce short-term volatility of output**

Suitability in the Case of Thailand

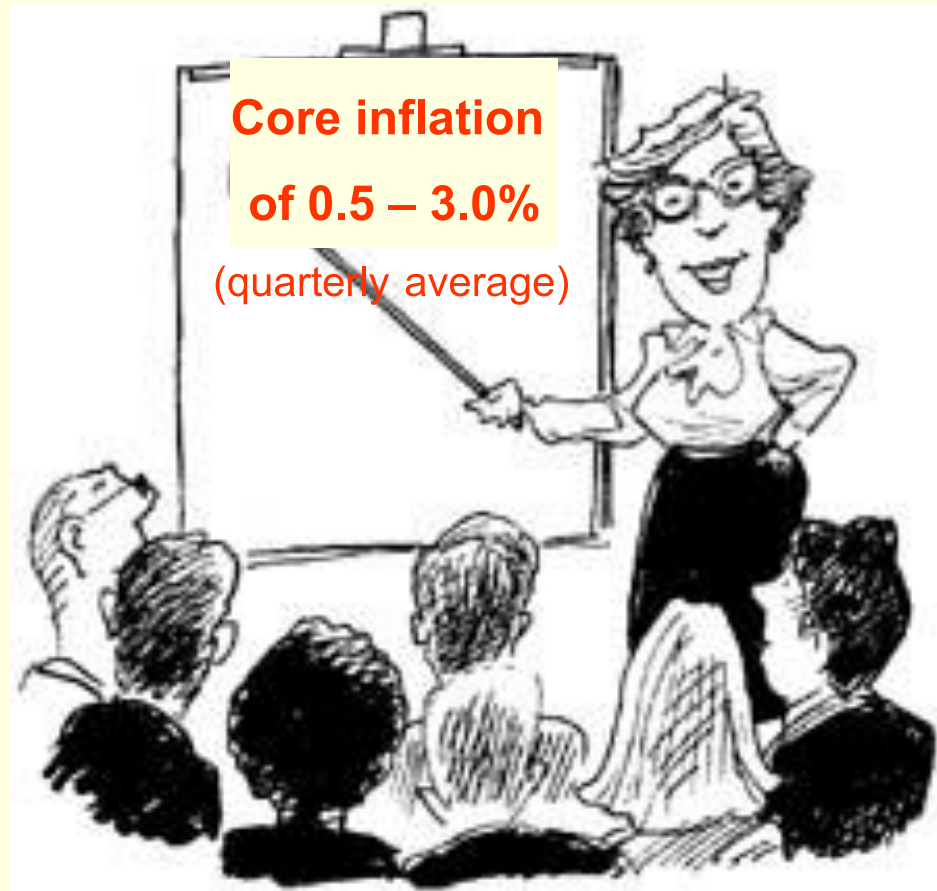
- 1. Price stability is an important precondition for overall macroeconomic stability. Ultimately, it helps promote long-term growth.**
- 2. IT works well with a floating exchange rate.**
- 3. IT, more so than other monetary policy frameworks, encourages a systematic work process and transparency of the central bank.**

Inflation Targeting in Thailand

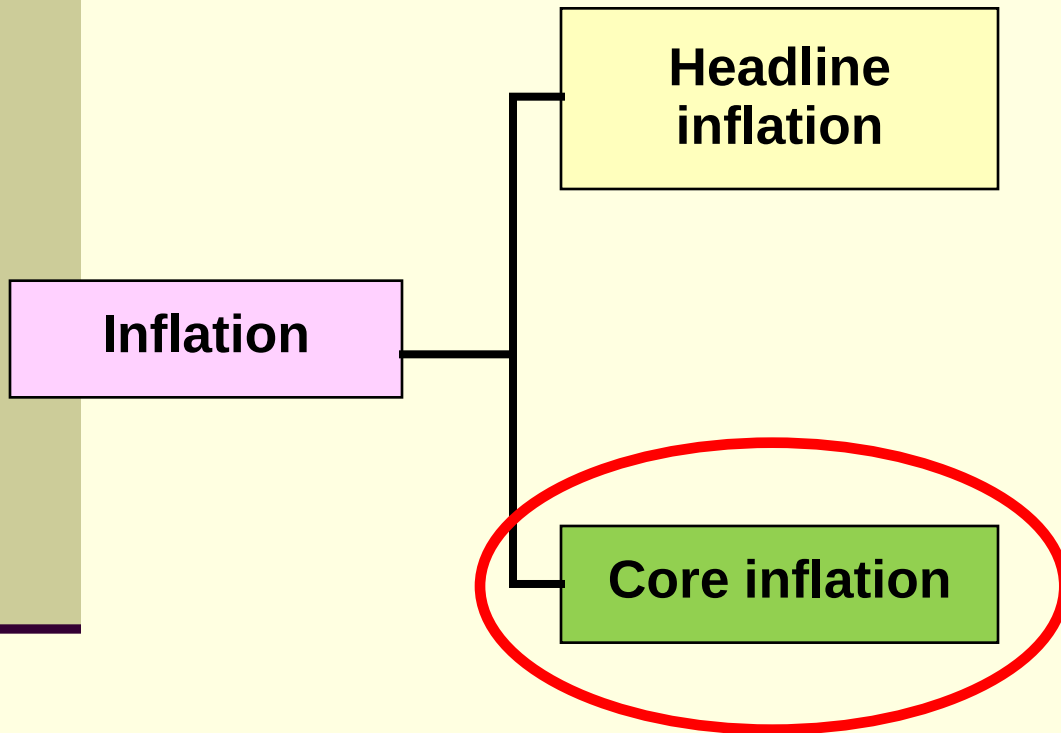


Inflation Target

The current
inflation target for
BOT is ...



Intermediate Target: Core Inflation



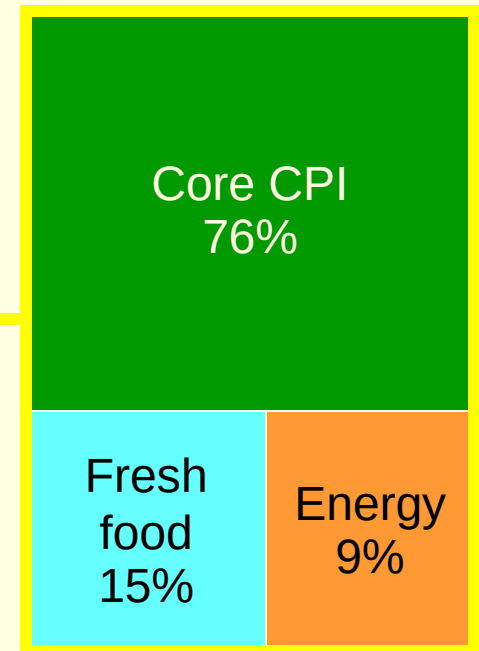
- A subset of headline inflation
- Focuses on inflation in the long-term so that monetary policy does not have to react to external pressure such as oil and farm prices

Thailand's Core Inflation Measure

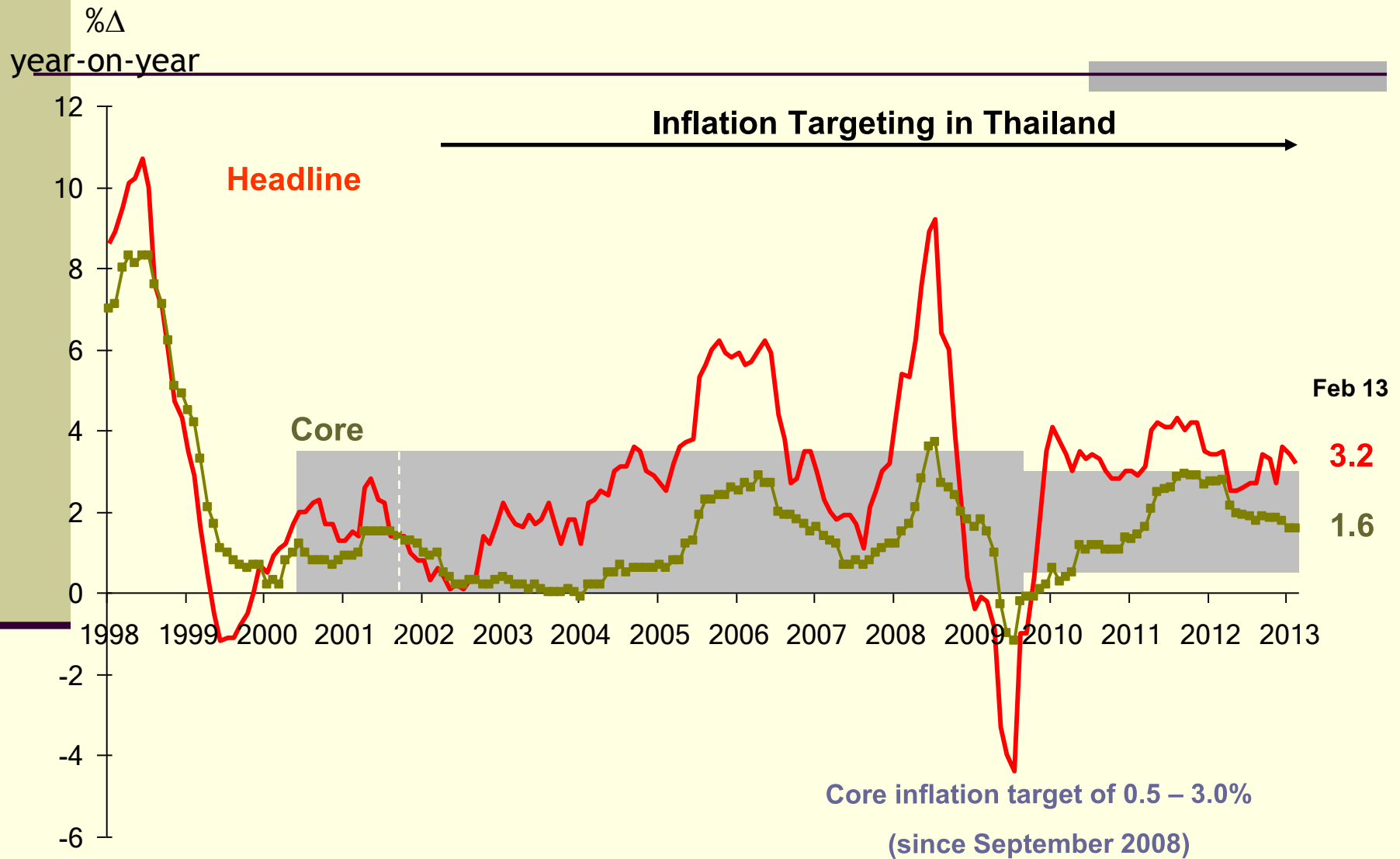
Core inflation is the change in Core CPI, which is Headline CPI excluding fresh food and energy items (roughly 24% of the CPI basket):

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

Headline
CPI



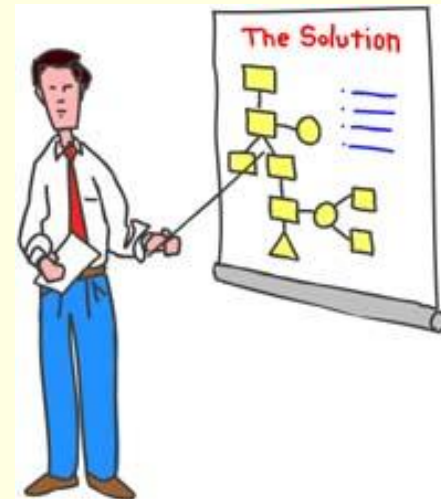
Headline and Core Inflation



Monetary Policy and 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



Monetary Policy Transmission Mechanism

- Monetary policy transmission takes time, that is, its effect is not immediate. This is similar to a slow moving large oil vessel. Thus, policy making needs to be pre-emptive.
- That is, the **time lags** for the effect of monetary policy on the economy may be as long as 8 quarters
- The need to be pre-emptive requires the BOT to make forecasts of the economy



BOT

Monetary Policy

(4-8 quarters)

**Economic
Stability**

Policy Signaling

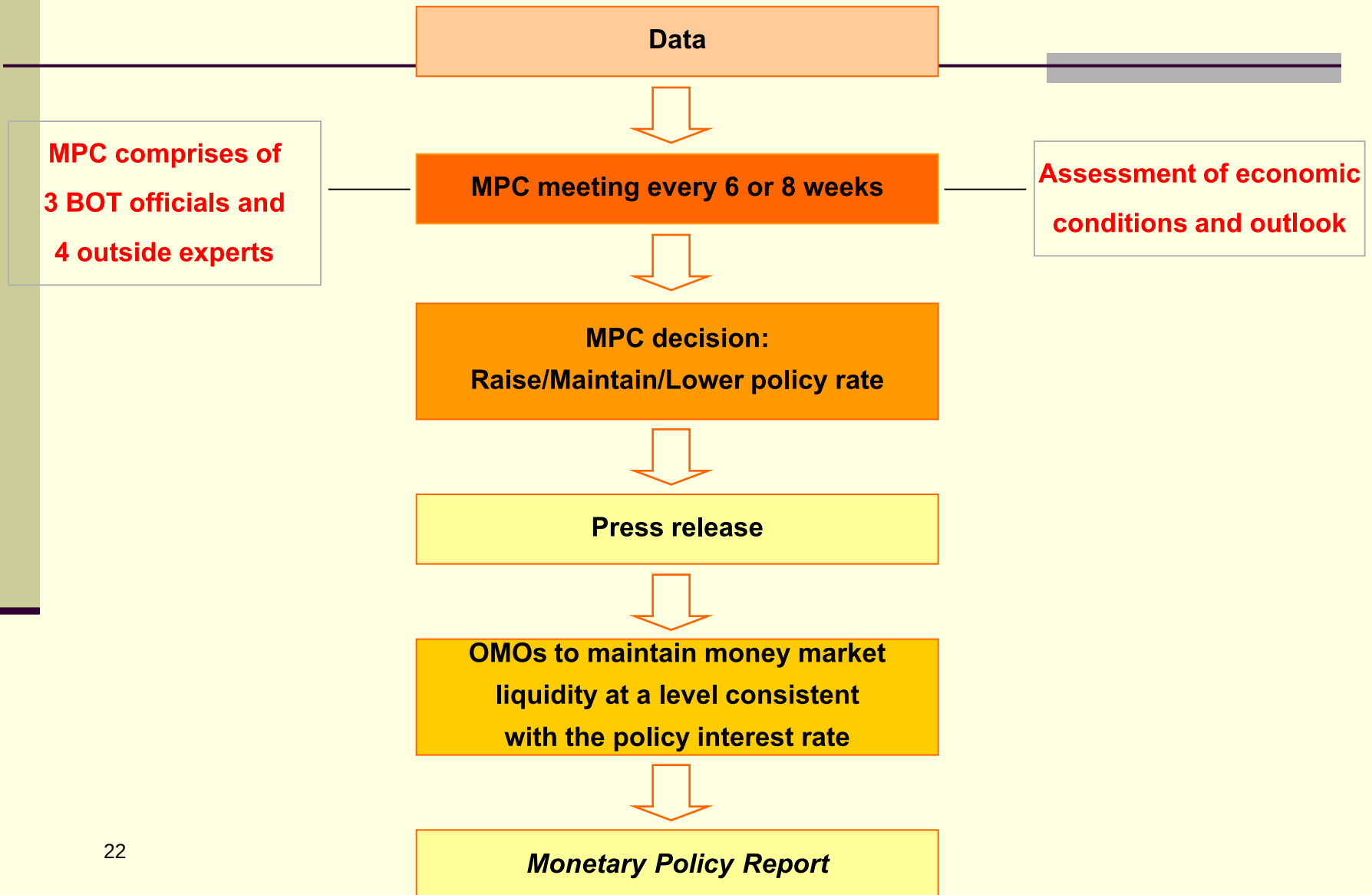
- The MPC signals policy through the 1-day repurchase rate while letting other money market rates move according to market conditions.
- Having only one policy interest rate helps enhance the policy signal.



Monetary Policy Implementation

- **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. Reserve Requirement**
 - 2. Standing Facilities**
 - 3. Open Market Operations (OMOs)**

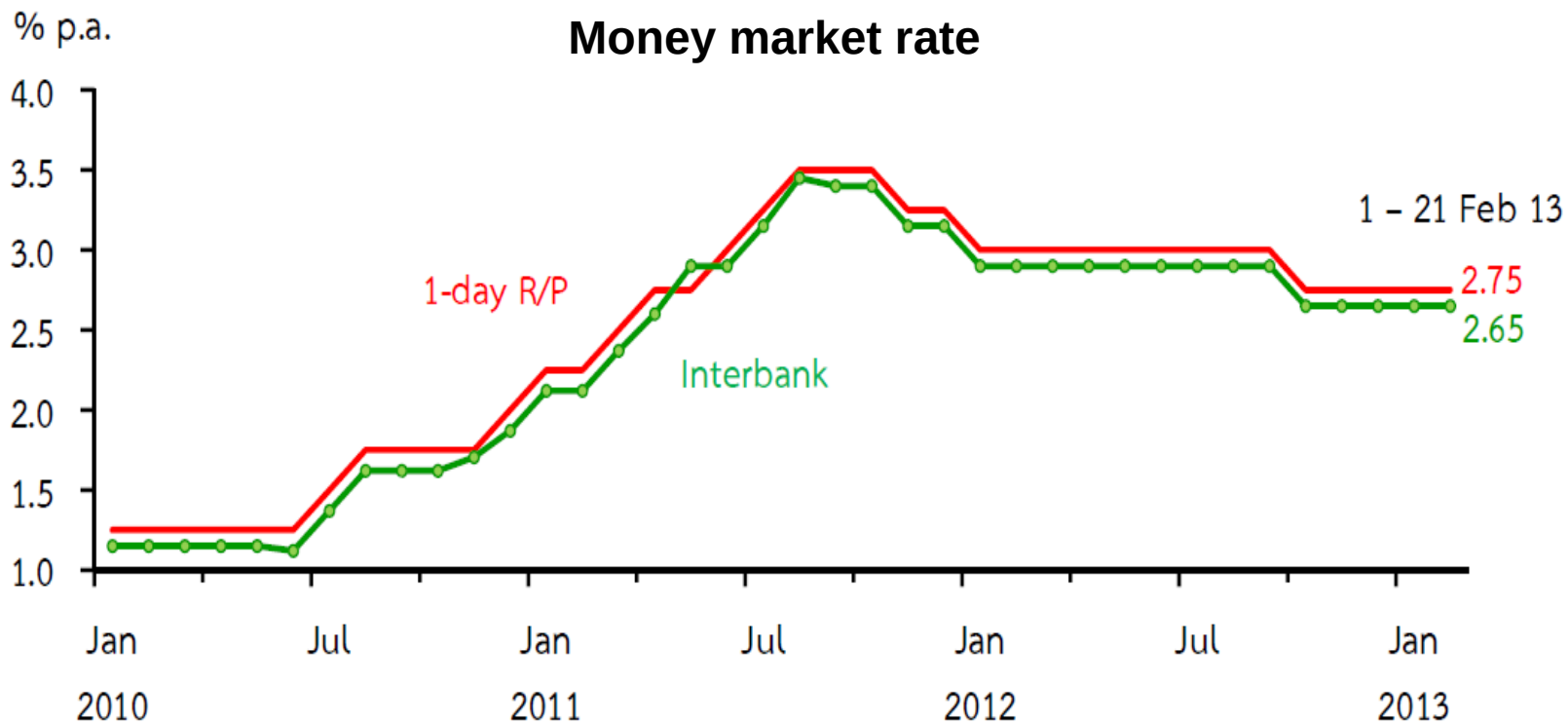
Monetary Policy Process



Recent MPC decision, Inflation and Growth Forecast*

***from Inflation Report (Bank of Thailand) Jan 13**

The Monetary Policy Committee (MPC) last cut the policy rate in October 2012, since then the policy rate has been maintained at 2.75 percent.



October 2012 rate cut was driven mainly by greater risks to growth compared to risks to inflation

Growth assessment: Global

The overall global economic outlook remained weak, although further monetary policy easing in major economies helped to support global financial market sentiment and latest indicators pointed towards some improvements in US housing and labour markets. Weak global demand had weighed more heavily on Chinese and regional economies than expected. Going forward, a more moderate growth outlook for the Chinese economy could dampen Asian exports further. At the same time, fiscal risks in the US and practical implementation challenges to the resolution of euro debt crisis posed significant risks to the global economic outlook.

Growth and Inflation assessment: Domestic

The Thai economy continued to expand in the third quarter, although the impact of softer global demand on exports and export production had become more apparent. The MPC assessed that the global economy would gradually improve next year, but the substantial degree of uncertainty surrounding the outlook could hamper exports in the period ahead. Domestic spending and private investment outlays continued to be robust, though investment moderated as flood-related expenditures tapered off. Credit growth to the private sector remained high and warranted close monitoring, while inflationary pressure stabilised at an acceptable level.

Monetary Policy decision

With upside risk to inflation contained, the majority of MPC members deemed that monetary policy easing was warranted to shore up domestic demand in the period ahead and ward off the potential negative impact from the global economy, which remained weak and fragile. The MPC therefore voted 5 to 2 to reduce the policy rate by 0.25 percent, from 3.00 percent to 2.75 percent per annum, effective immediately. Two members voted to maintain the policy rate at 3.00 percent per annum deeming the current growth momentum to be adequate and that further policy action could await greater clarity in the economic outlook.

The decision to maintain the policy rate was due to comparable risks to inflation and risks to growth.

Growth assessment: Global

The global economy has been more stable and exhibited signs of improvement since the last meeting. The Chinese and Asian economies have expanded well on the back of strong domestic demand and better prospects of exports. Domestic consumption and investment in the US continued to expand and, if sustained, should lend support to the economy going forward. The eurozone economy remained in recession and would take time to fully recover. Economic growth in Japan has yet to gain traction, but the planned fiscal and monetary stimulus should gradually help stabilise the economy. Despite improving overall outlook, the global economic recovery is still subject to downside risks, from the eurozone's sovereign debt problems and uncertainties regarding the US fiscal consolidation.

Growth and Inflation assessment: Domestic

The Thai economy expanded more than expected in the fourth quarter of 2012, spurred by domestic demand amid strong economic fundamentals as well as accommodative monetary and fiscal policies. The economy is expected to grow faster than previously projected in the periods ahead, with domestic demand being a key growth driver together with a gradual recovery of exports. Inflationary pressure has risen somewhat, as a result of an increase in oil prices.

Monetary Policy decision

The MPC judged that the accommodative monetary policy stance contributed to sustained growth of the economy, while inflation has been kept within the target range. However, given remaining uncertainties surrounding the global economic outlook and risks to domestic financial stability including from rising asset prices, the MPC voted 6 to 1 to maintain the policy interest rate at 2.75 percent per annum. One member viewed risks stemming from volatile capital flows and fragile economic momentum to warrant a 0.25 percent reduction. Going forward, the MPC will continue to closely monitor risks to financial stability as well as capital flow situation and stand ready to take actions as appropriate.

***MPC Press Release 20 Feb 13**

Major economic developments and outlooks

- 1) Thailand's economic growth was firmer than expected, mainly from strength in domestic demand especially private investment
- 2) Exports show signs of bottoming out and are poised to recover gradually, returning normal in 2013 H2
- 3) Looking ahead, risks to economic growth decline given signs of stabilization in the global economy
- 4) Inflation outlook remains benign due to subdued cost pressure and the limited impact of minimum wage hike on domestic prices
- 5) Financial stability risks still warrant close monitoring in the period ahead

Growth outlook improves

Forecast Summary

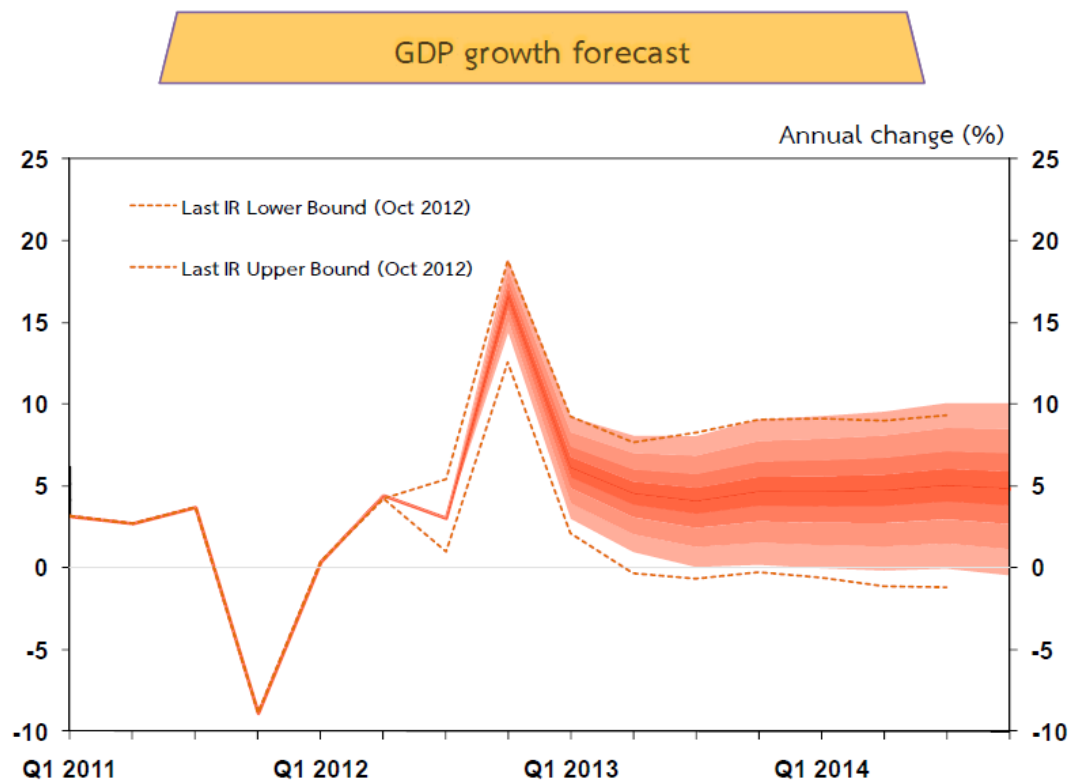
Percent	2012*	2013	2014
GDP growth	5.9 (5.7)	4.9 (4.6)	4.8
Headline inflation	3.0* (3.0)	2.8 (2.8)	2.6
Core inflation	2.1* (2.1)	1.7 (1.7)	1.6

Note: * Outturn

() Inflation Report October 2012

Source: Office of the National Economic and Social Development Board
and calculation by Bank of Thailand

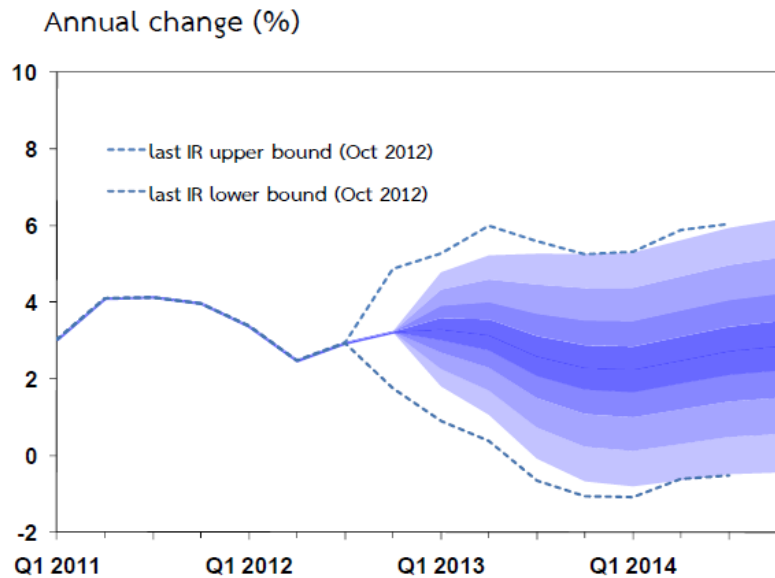
Given reduced global economic risks, the growth fan chart is downward-skewed to an extent lesser than in the previous projection



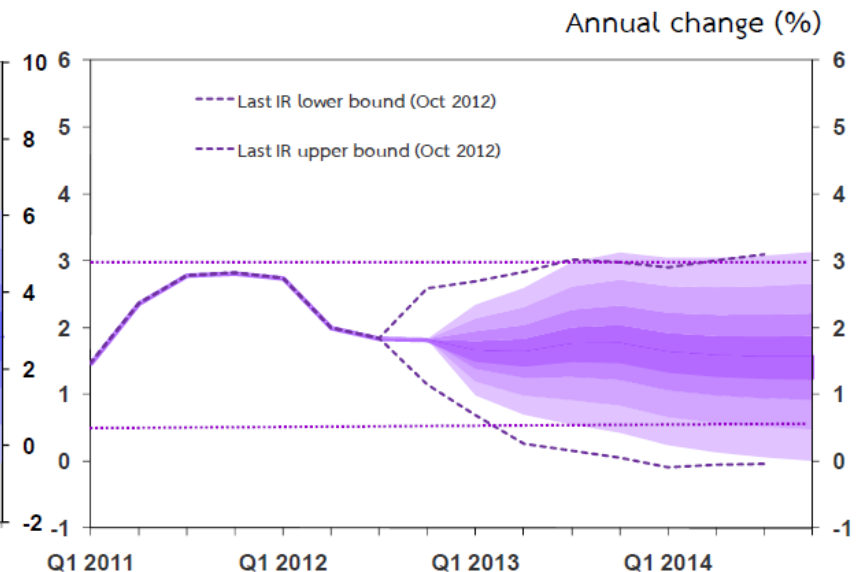
Note: The fan chart covers 90 percent of the probability distribution.

Downside risks to inflation decrease in tandem with domestic demand strength

Headline inflation forecast



Core inflation forecast

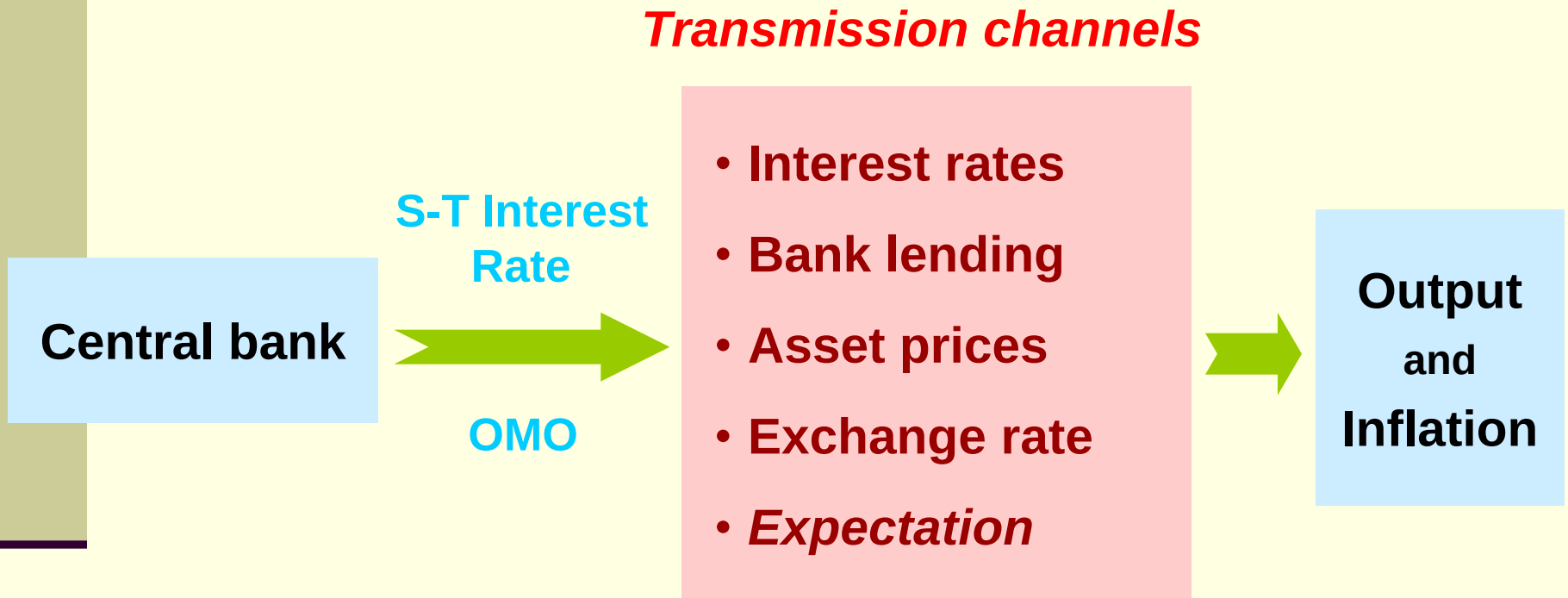


Note: The fan charts cover 90 percent of the probability distribution.



Transmission Mechanism: The Thai Experience

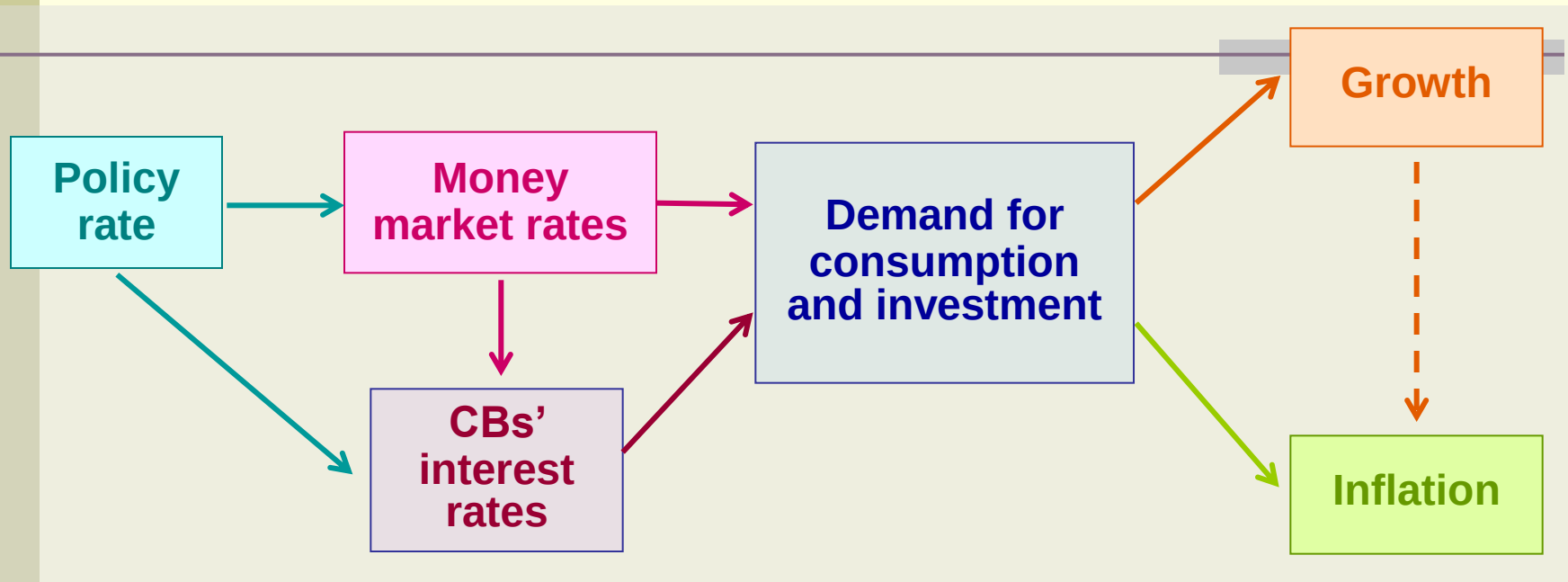
Monetary Policy Transmission



Transmission Mechanism: The Thai experience

- Monetary transmission channels and their practical constraints
 - Interest Rates and Credit
 - Exchange Rate
 - Asset Prices
 - Expectations

Transmission Channel: 1. Interest Rates and Credit Channel



The strength of the interest rate channel depends on:

- Pass-through from policy rate to money market and CBs' interest rates
- Degree of excess liquidity
- Degree of development of domestic financial markets
- Responsiveness of demand for consumption and investment to interest rates

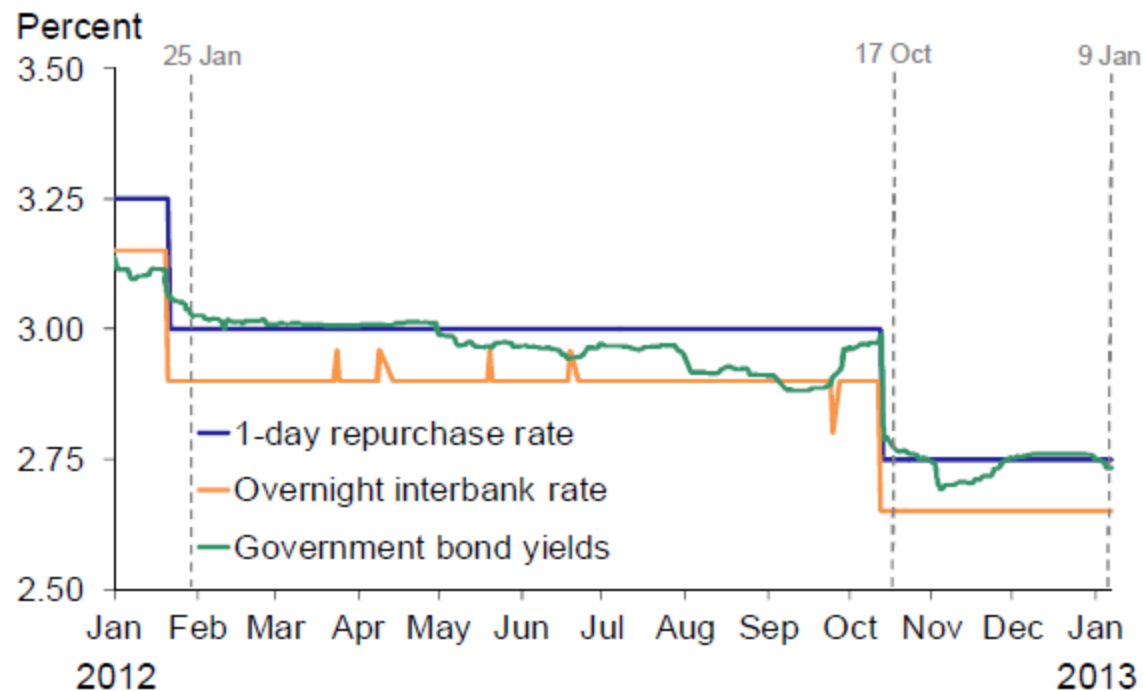
Pass-through via interest rates and bank lending

**Policy rate to money market rates
and the term structure of interest rates**

Policy rate to commercial bank rates (Deposit & MLR)

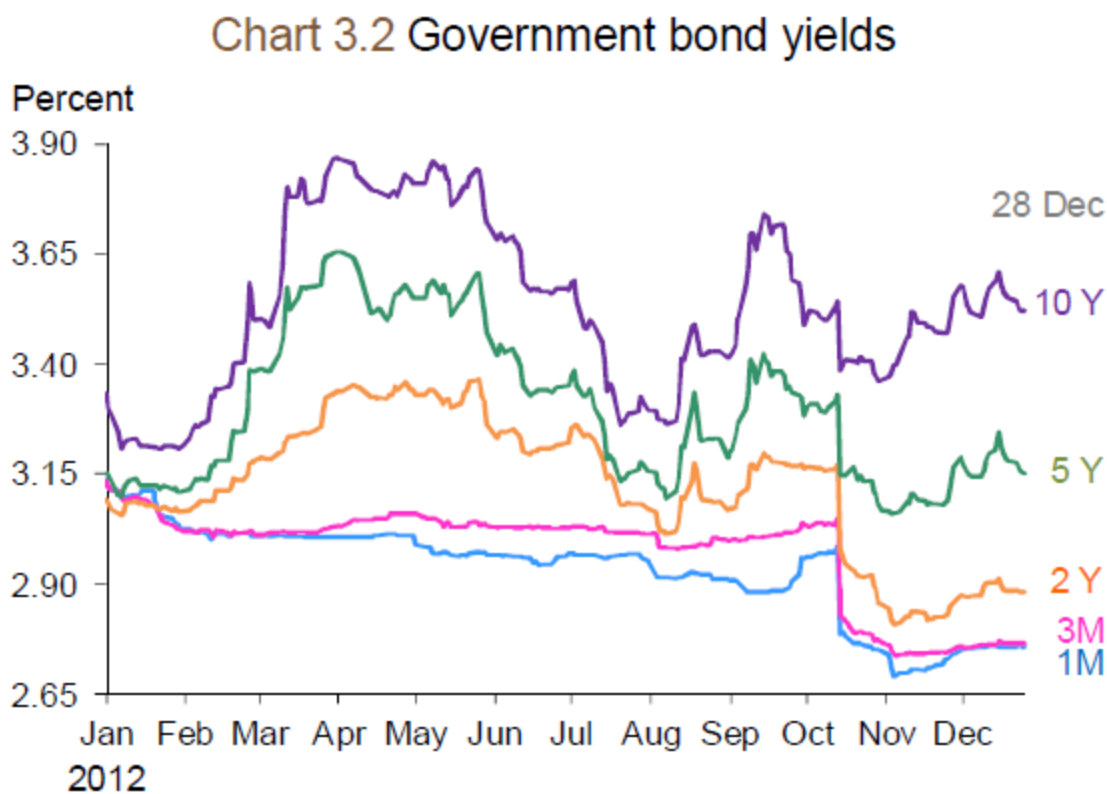
Money market rates respond quickly to the current policy rate change in the same direction

Chart 3.1 Money market short-term interest rates



Sources: Bank of Thailand and the Thai Bond Market Association (ThaiBMA)

Long-term bond yields depend mostly on market expectations of future policy rate changes, but the response is also quick



Source: The Thai Bond Market Association (ThaiBMA)

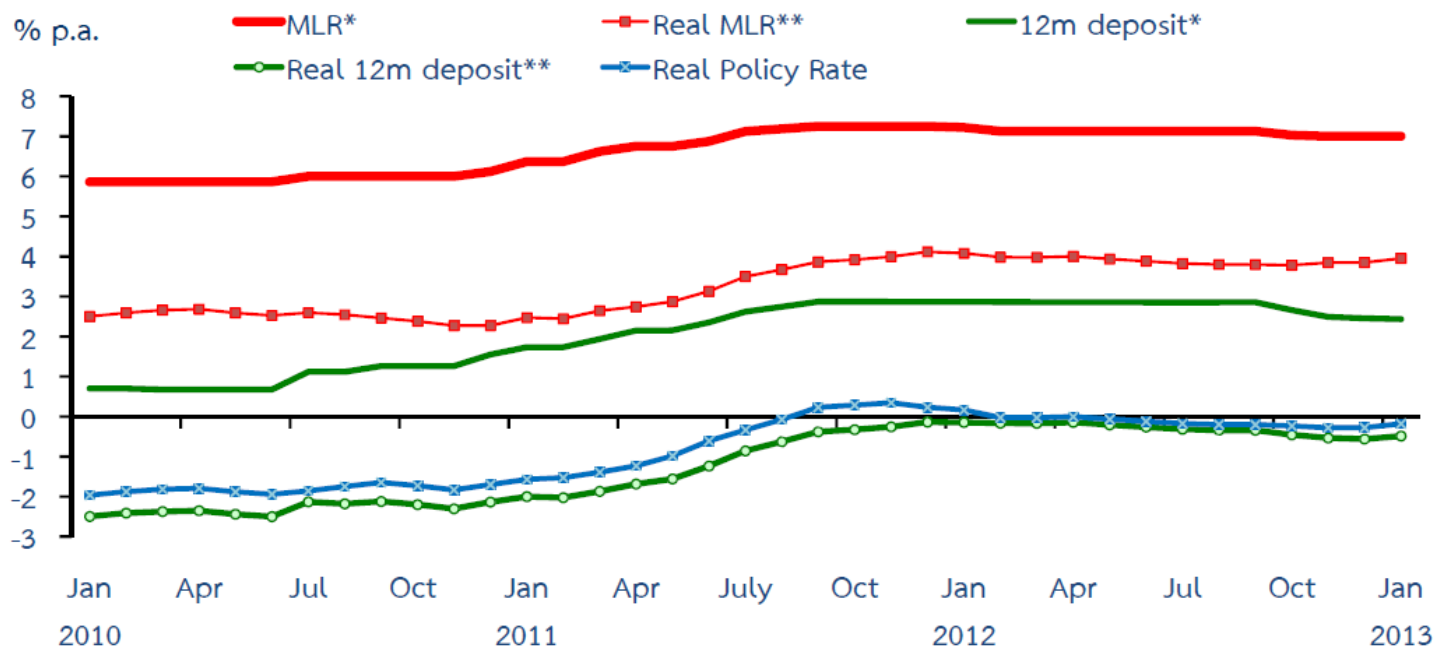
Pass-through via interest rates and bank lending

**Policy rate to money market rates
and the term structure of interest rates**

Policy rate to commercial bank rates (Deposit & MLR)

Retail interest rates respond significantly to policy rate changes with some lags

Policy Rate and Retail Rates



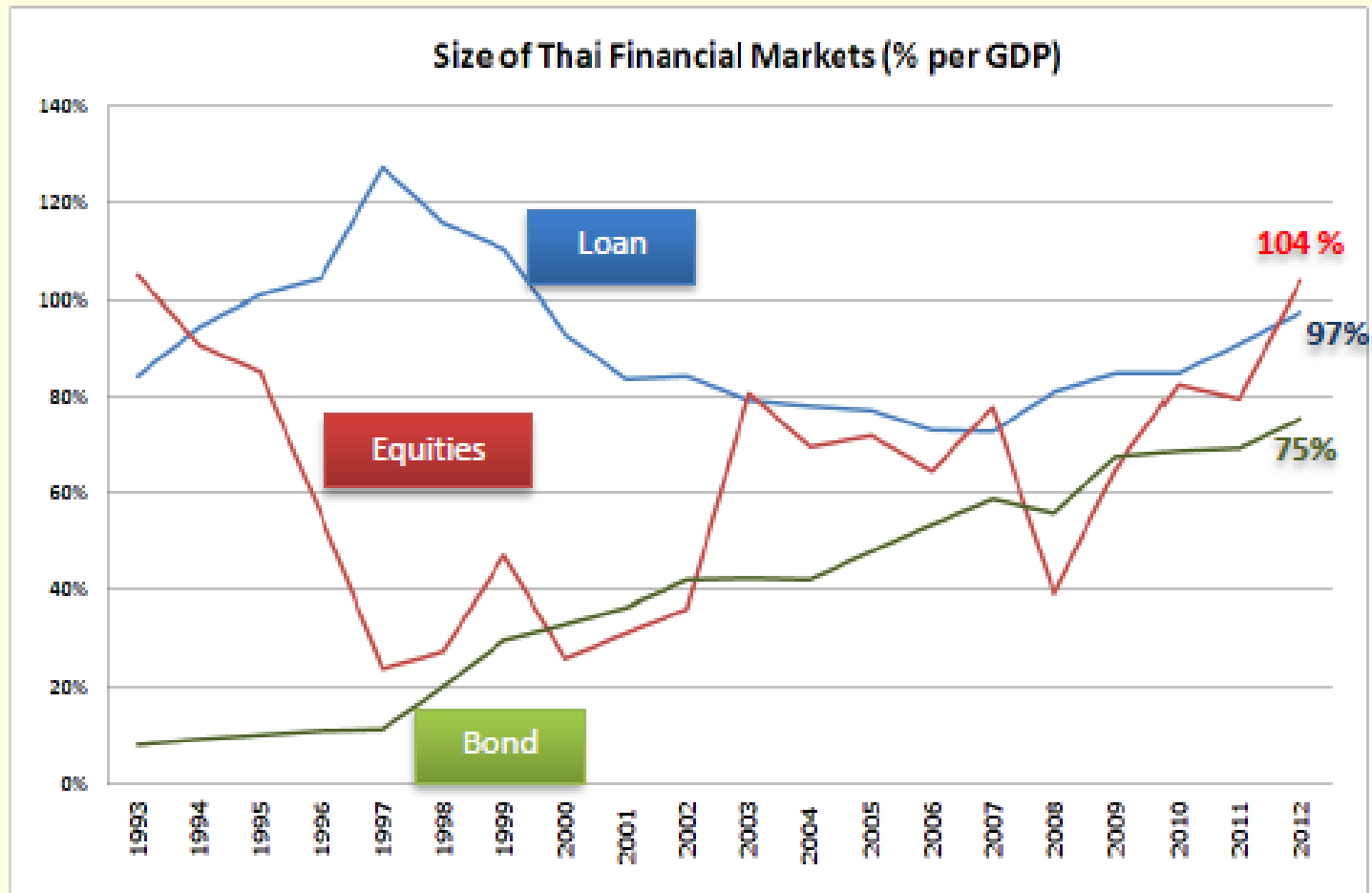
* Interest rates quoted by 4 largest Thai banks

** Real MLR and Real 12m deposit rates are adjusted by expected headline inflation 12 months ahead.

^{1/} Average Min-Max

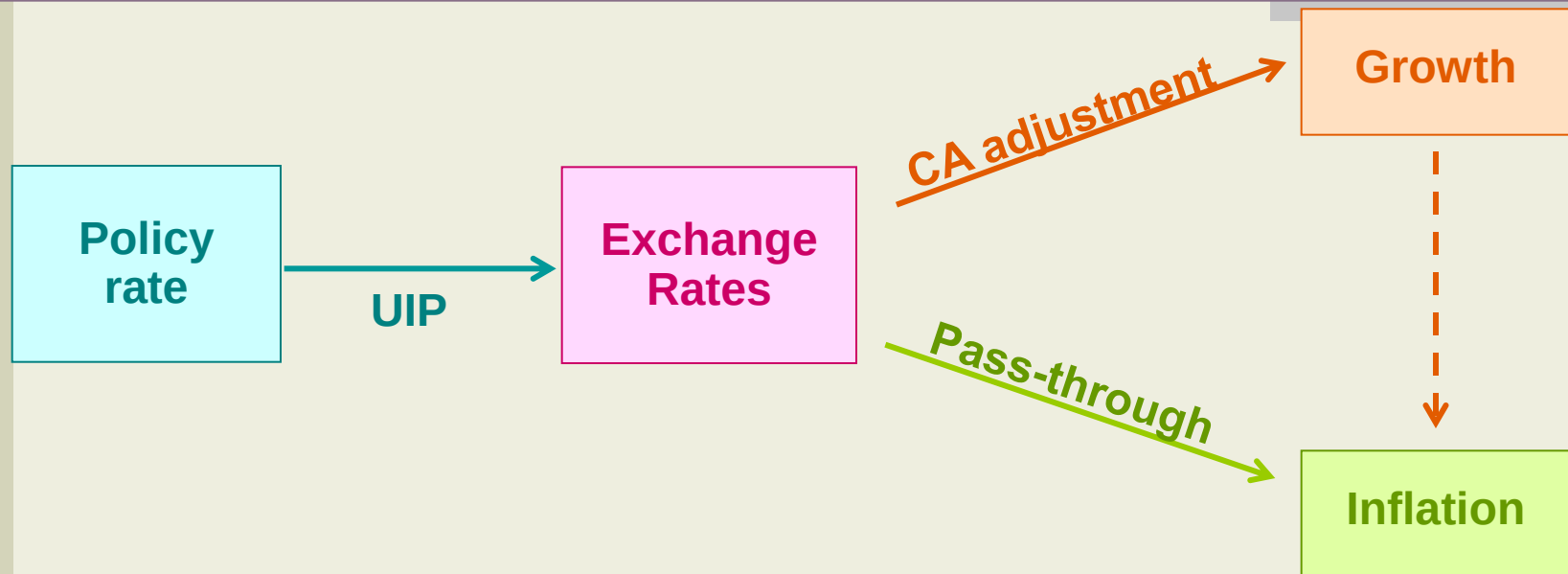
Nevertheless, the shift in financial intermediation away from bank-based lending to money markets has accelerated overall transmission via the interest rate channel.

The ratio of bank credits to GDP has fallen since the financial crisis, confirming a significant degree of 'disintermediation'



Source: ThaiBMA

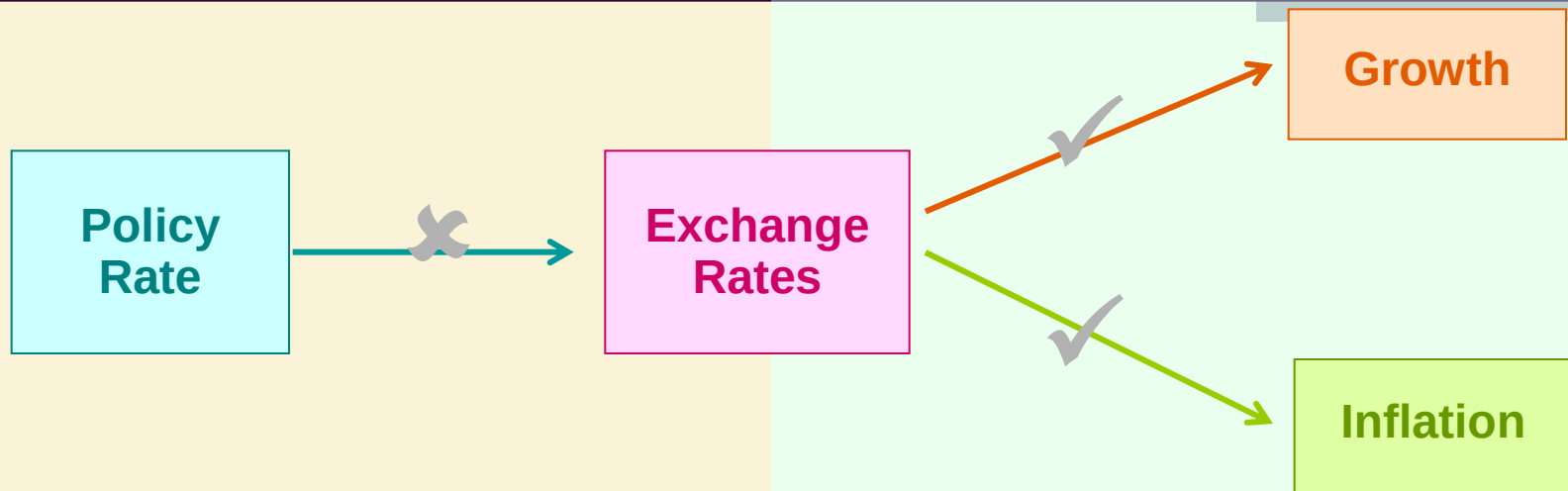
Transmission Channel: 2. Exchange Rate Channel



The strength of the exchange rate channel depends on:

- Responsiveness of the exchange rate to interest rates
- Degree of trade and financial openness
- Sensitivity of net exports to exchange rate variations
- Degree of development of domestic financial markets
- Policy credibility

In practice, the effectiveness of exchange rate channel is relatively weak due to small response of exchange rate to interest rate differential



The weakness lies in the unstable response of exchange rate to policy rate changes

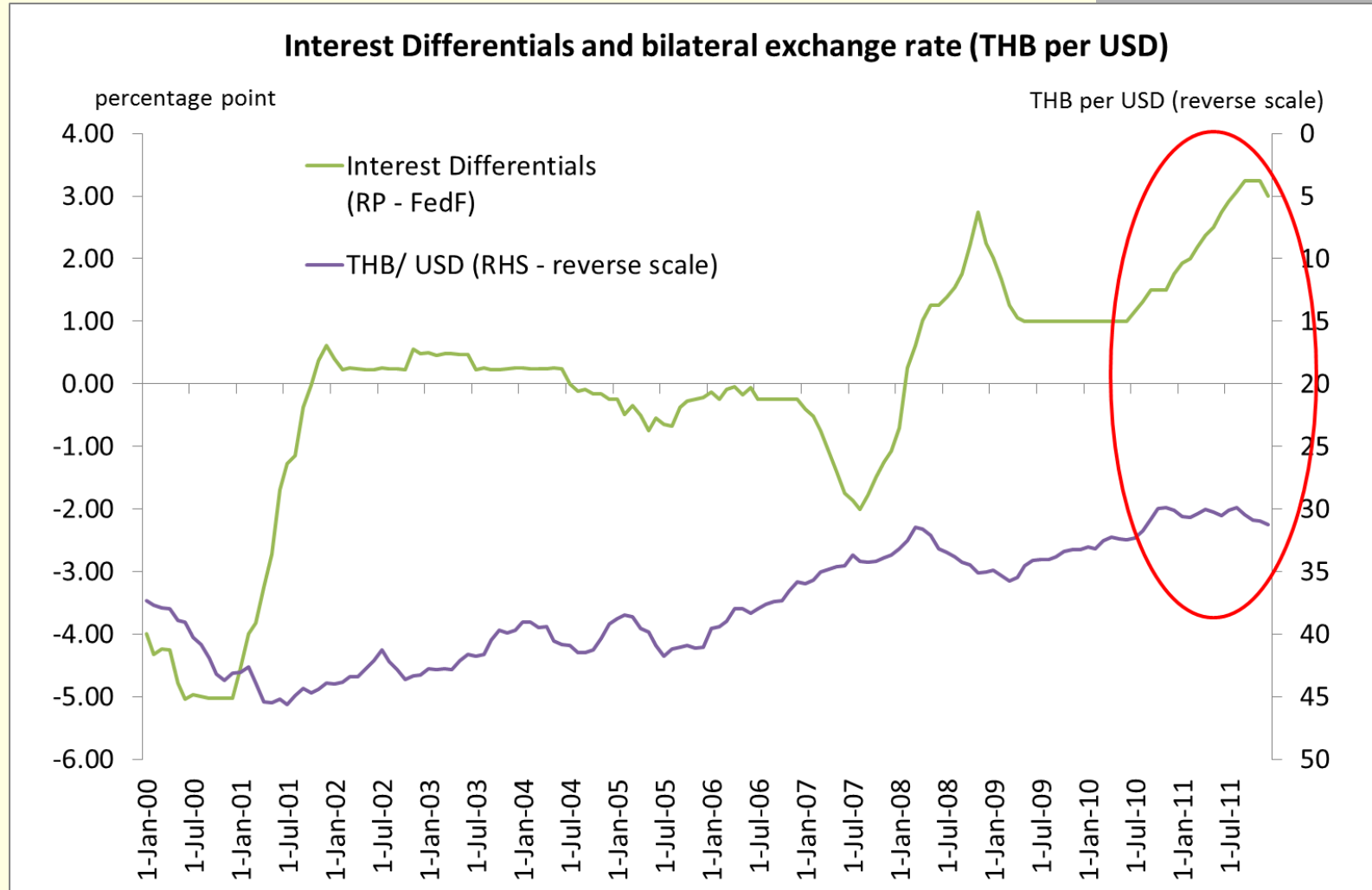
Effect* of 1% depreciation in THB/USD**

	As of Jul 08
Economic growth	+0.16
Headline inflation	+0.13

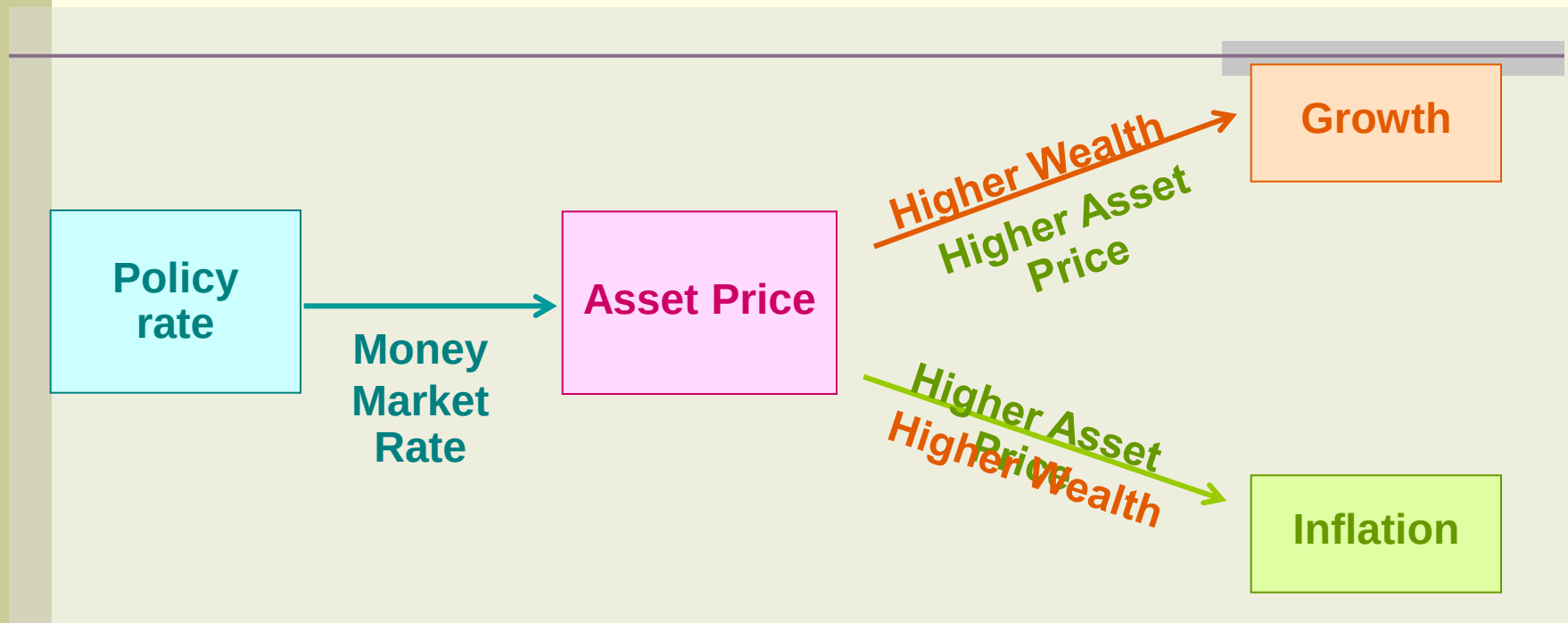
Note: *average effect in 1 year

** From Vector Error Correction Model

Evidence suggests a relatively small impact of interest rate differential on Thailand's exchange rate movements



Transmission Channels: 3. Asset Price Channel



The strength of the asset price channel depends on:

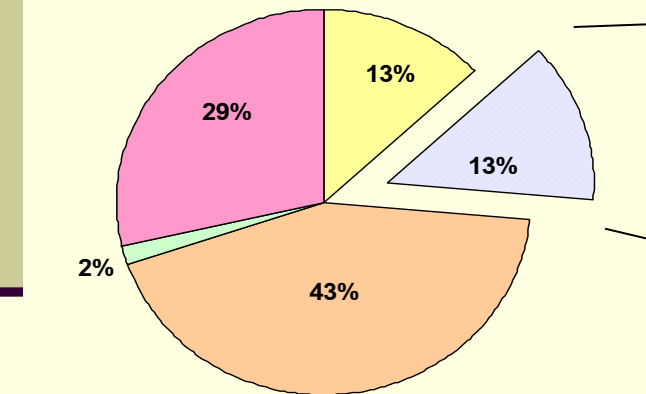
- Degree of development and liquidity of domestic financial markets
- Disintermediary role of commercial banks
- Policy credibility

Asset Price Channel remains weak in Thailand

Most household wealth is in the form of residential and commercial real estate (non-financial assets); these assets are quite illiquid.

Even financial assets held by households are mostly deposit accounts, not securities whose values are sensitive to changes in the policy interest rate.

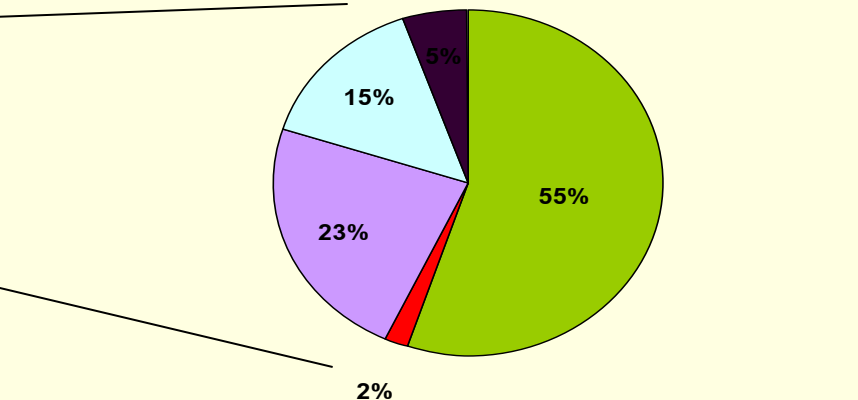
Composition of Household wealth



Legend for Composition of Household wealth:

- Vehicles (Yellow)
- RealEstate (residential) (Orange)
- RealEstate (commercial) (Pink)
- Financial Assets (Light Blue)
- Livestock (Light Green)

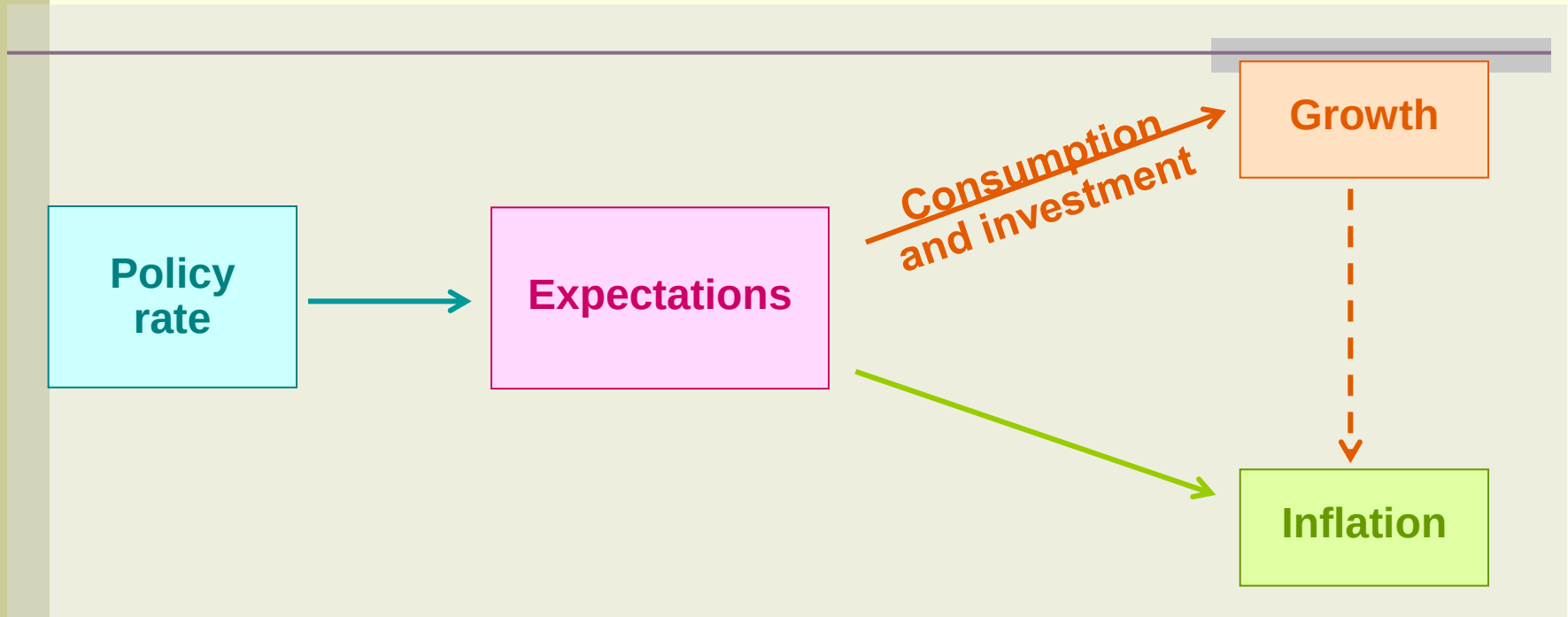
Composition of Financial Assets



Legend for Composition of Financial Assets:

- Deposit accounts (Green)
| Providence funds, insurance | 23% |
| Cash and jewellery | 15% |
| Others | 5% |
| Stocks, bonds, mutual funds | 2% |

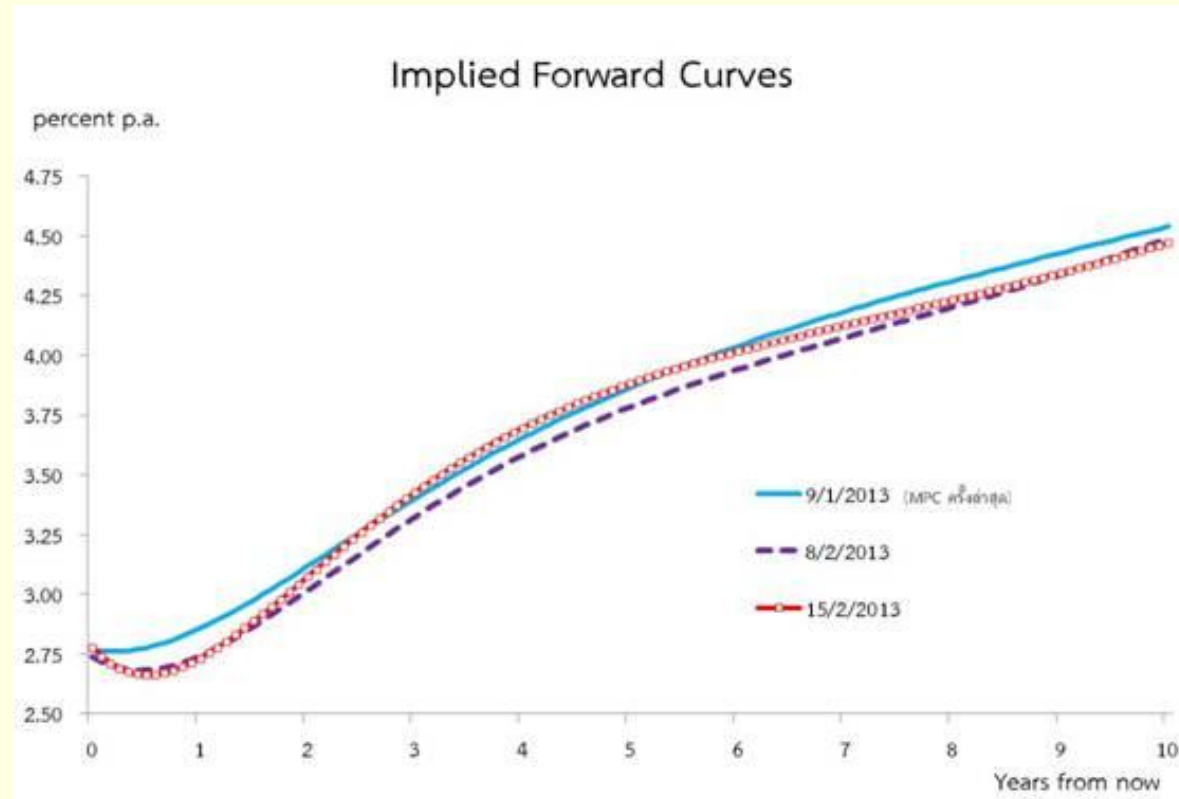
Transmission Channel: 4. Expectations Channel



The direction and effectiveness of the expectations channel depends on:

- Public perception about how the central bank views current economic conditions
- The degree of central bank credibility and public perception of its policy commitment
- The degree of predictability of central bank policy actions

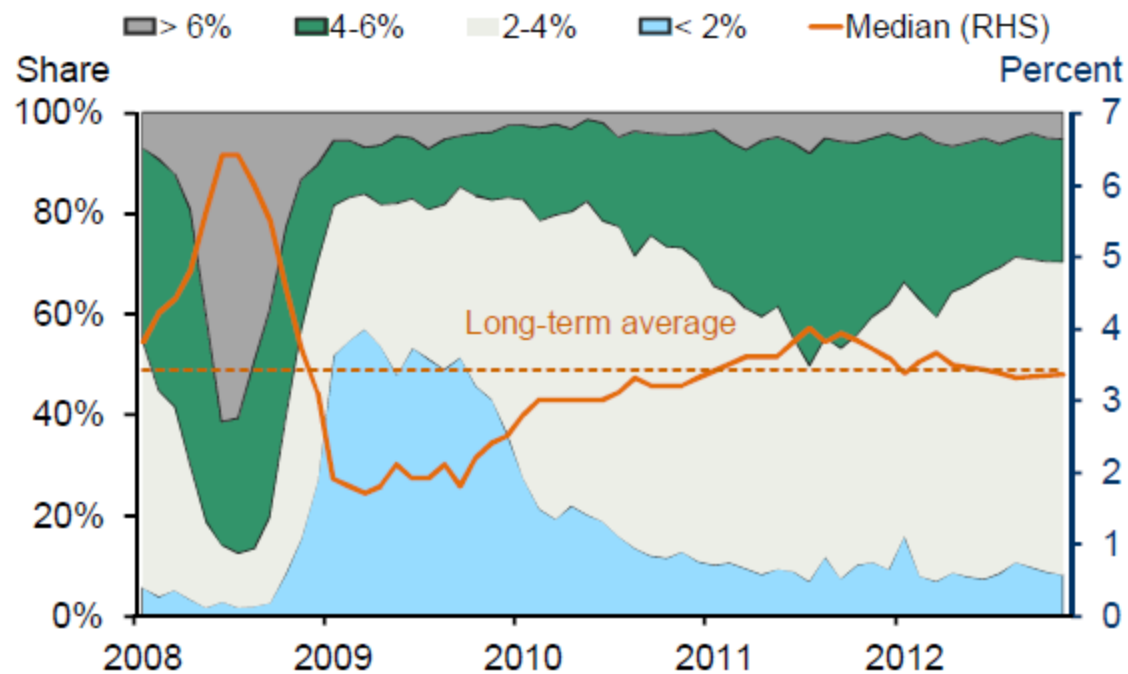
The BOT uses bond yields and the implied forward curve to measure longer - horizon inflation expectations ...



... while the Business Sentiment Survey is used to gauge shorter-horizon inflation expectations.

Inflation Expectations over the next 12 months

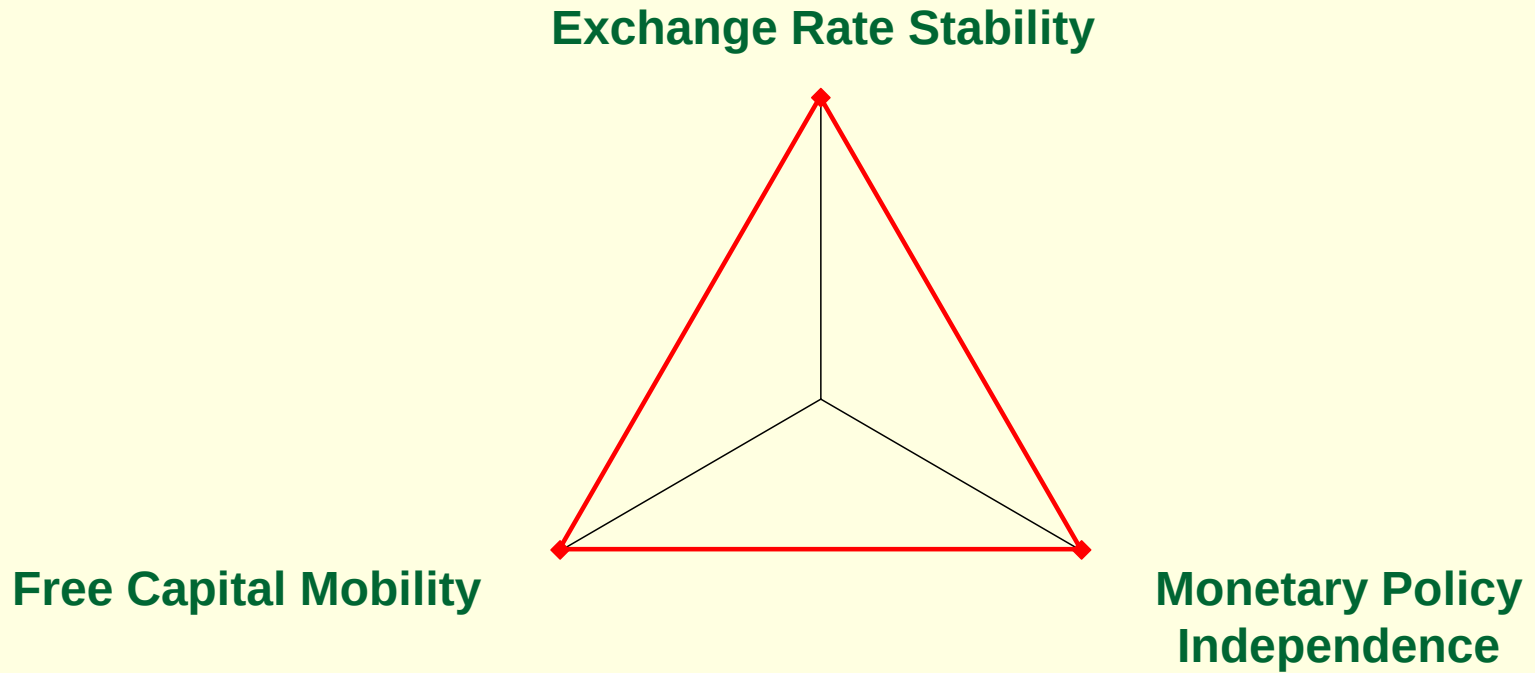
Chart 2.20 12-month ahead inflation expectation
(November 2012)



Source: Bank of Thailand's Business Sentiment Survey

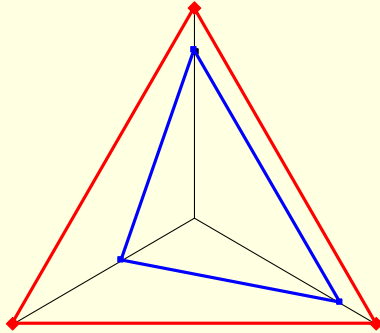
Exchange rate policy under inflation targeting

The inconsistent trinity

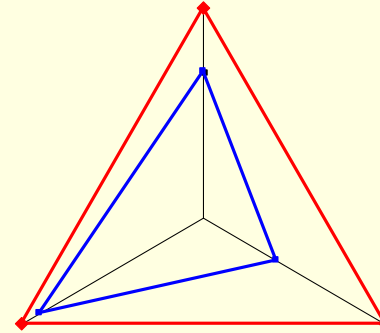


Inconsistent trinity and countries' monetary framework*

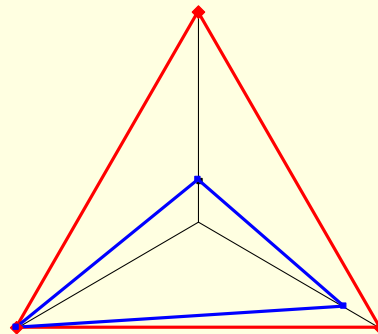
China



Singapore



Australia

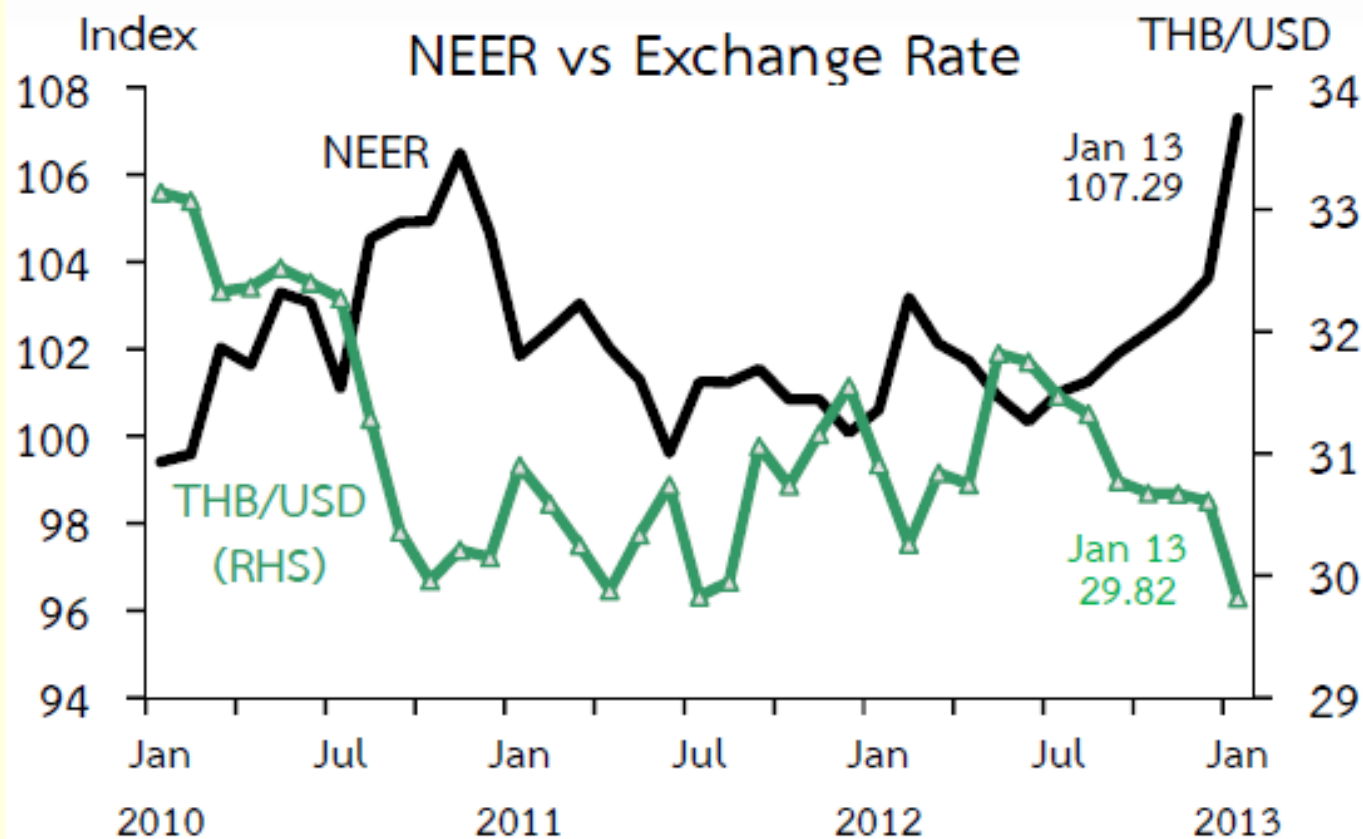


* Based purely on judgment – not to scale!

Thailand's Exchange Rate Policy

- Under the inflation targeting framework and the managed-float, the value of the baht is allowed to be determined by market forces, reflecting demand and supply for the baht in the foreign exchange market.
- Under the managed float, the Bank of Thailand:
 - **does not target a fixed level for the exchange rate**
 - **stands ready to intervene in the case of excess volatility, particularly resulting from speculative capital flows, in a manner consistent with the Bank's inflation targeting framework.**

Development in exchange rate: appreciation since 2012H2



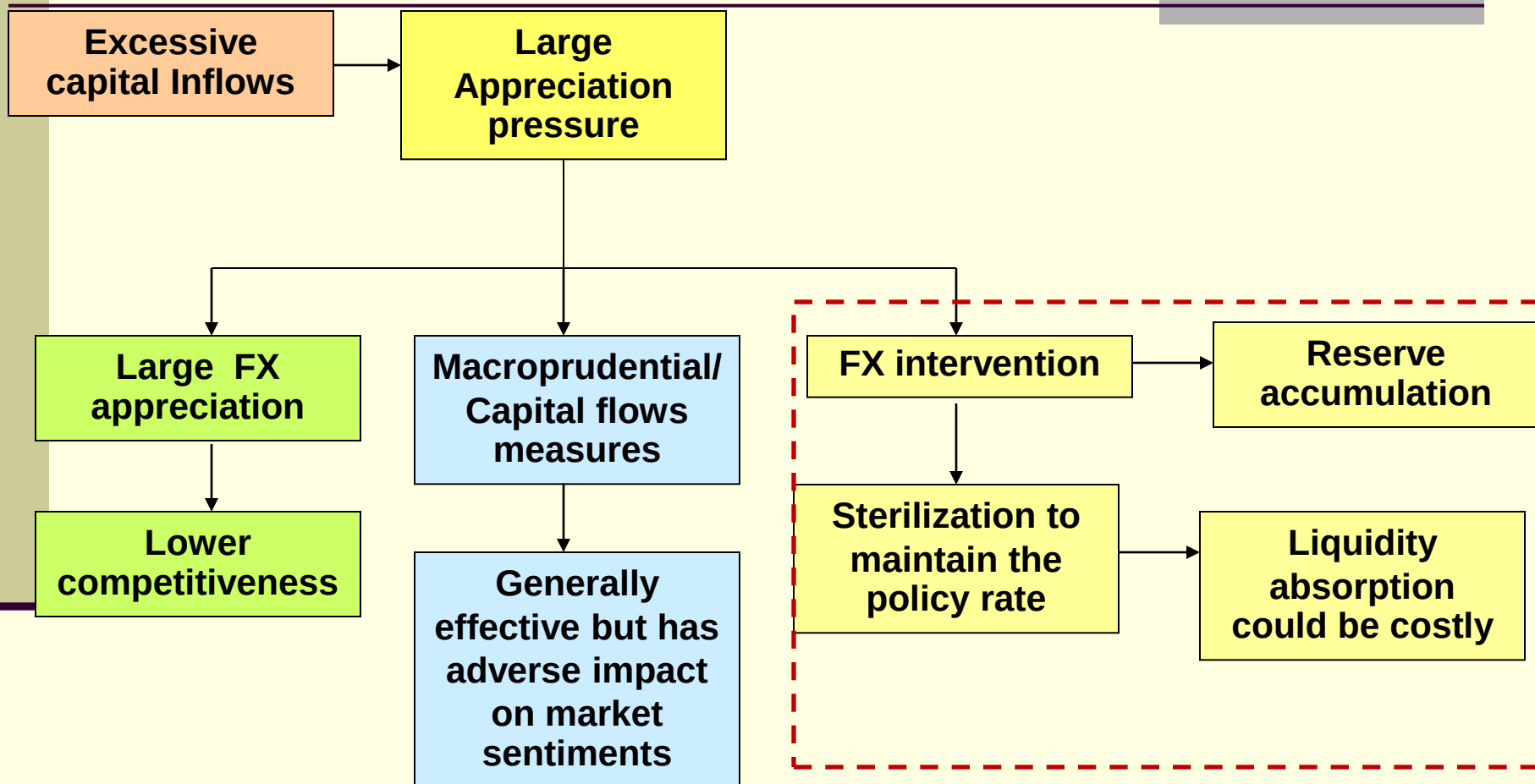
Source: Bank of Thailand

Baht appreciation was caused by capital inflows.

Balance of Payments

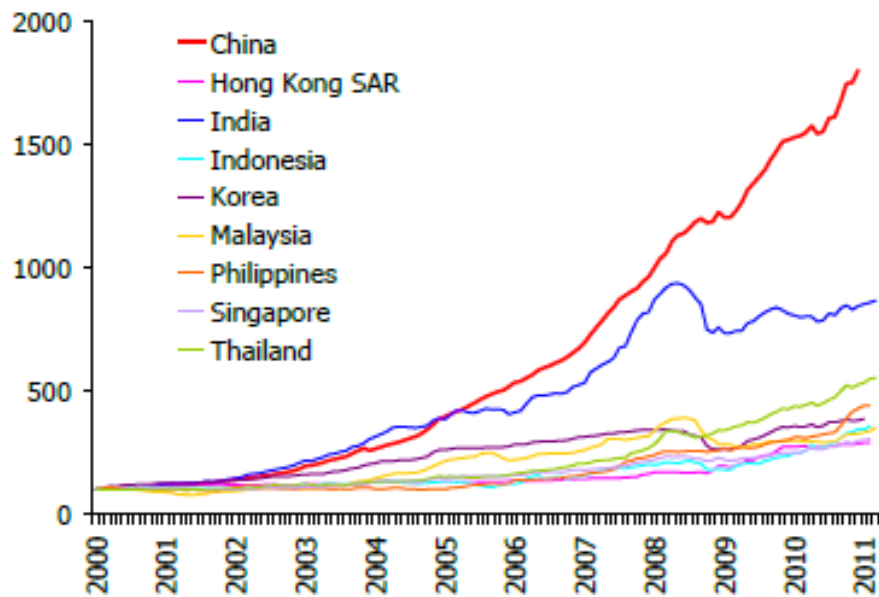
Billion USD	2011	2012 ^P	2012 ^P					2013 ^E
			H1	H2	Q3	Q4	Dec	Jan
Trade balance	17.0	8.3	2.6	5.8	5.0	0.8	0.3	-2.8
Export (f.o.b.)	219.1	226.2	110.5	115.7	59.3	56.4	18.0	17.9
%YoY	14.3	3.2	0.2	6.3	-3.0	18.2	13.6	15.6
Import (f.o.b.)	202.1	217.8	107.9	109.9	54.3	55.7	17.7	20.7
%YoY	24.9	7.8	10.0	5.6	-2.5	14.9	1.3	38.4
Services & Income	-11.1	-5.6	-3.5	-2.1	-2.3	0.2	0.4	0.6
Current A/C	5.9	2.7	-0.9	3.7	2.7	0.9	0.7	-2.2
Capital and Financial account	-5.2	11.5	3.1	8.3	4.6	3.8	2.0	1.5
Government	3.8	5.8	2.0	3.8	2.6	1.2	0.4	0.3
Central Bank	-0.1	1.0	1.5	-0.5	1.1	-1.6	-0.1	1.9
ODC	-8.8	13.9	8.8	5.1	1.5	3.7	2.2	-1.7
Others	-0.1	-9.5	-9.3	-0.2	-0.8	0.5	-0.5	1.0
Net error & omissions	0.6	-8.9	-2.8	-6.2	-2.2	-4.0	-1.9	1.7
Overall balance	1.2	5.3	-0.6	5.8	5.1	0.7	0.8	1.0
Net Reserves	206.4	205.8	205.4	205.8	208.4	205.8	205.8	205.3

Inconsistent trinity and challenges to exchange rate management under inflation targeting



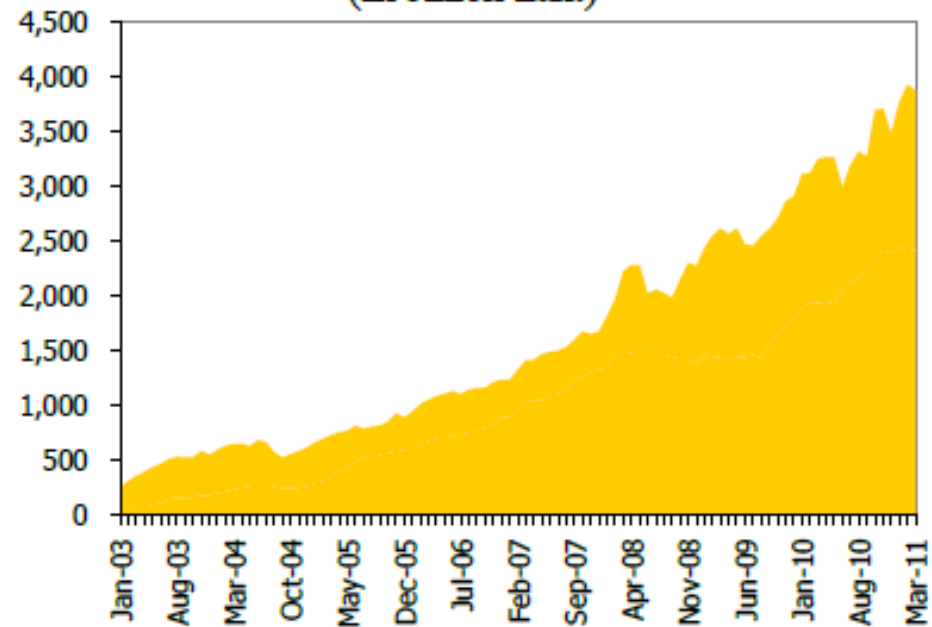
While international reserves were built up due to foreign exchange intervention, the obligation to sterilize also increased. This may have an implication on central banks' balance sheet.

Emerging Asia's Gross Reserves
(Index Jan 2000 = 100)



Source: IFS and authors' calculation.

Outstanding Amount of Sterilization
(In billion Baht)



Source: Bank of Thailand and authors' calculation.

Appendix: Explaining yield curves: Expectations Theory

- The interest rate on a long-term bond will equal an average of the short-term interest rates that people expect to occur over the life of the long-term bond
- Buyers of bonds do not prefer bonds of one maturity over another; they will not hold any quantity of a bond if its expected return is less than that of another bond with a different maturity
- Bonds like these are said to be perfect substitutes

Expectations Theory—Example

- Let the current rate on one-year bond be 6%.
- You expect the interest rate on a one-year bond to be 8% next year.
- Then the expected return for buying two one-year bonds averages $(6\% + 8\%)/2 = 7\%$.
- The interest rate on a two-year bond must be 7% for you to be willing to purchase it.

Expectations Theory—In General

For an investment of \$1

i_t = today's interest rate on a one-period bond

i_{t+1}^e = interest rate on a one-period bond expected for next period

i_{2t} = today's interest rate on the two-period bond

Expectations Theory—In General (cont'd)

Expected return over the two periods from investing \$1 in the two-period bond and holding it for the two periods

$$(1 + i_{2t})(1 + i_{2t}) - 1$$

$$= 1 + 2i_{2t} + (i_{2t})^2 - 1$$

$$= 2i_{2t} + (i_{2t})^2$$

Since $(i_{2t})^2$ is very small

the expected return for holding the two-period bond for two periods is

$$2i_{2t}$$

Expectations Theory—In General (cont'd)

If two one-period bonds are bought with the \$1 investment

$$(1 + i_t)(1 + i_{t+1}^e) - 1$$

$$1 + i_t + i_{t+1}^e + i_t(i_{t+1}^e) - 1$$

$$i_t + i_{t+1}^e + i_t(i_{t+1}^e)$$

$i_t(i_{t+1}^e)$ is extremely small

Simplifying we get

$$i_t + i_{t+1}^e$$

Expectations Theory—In General (cont'd)

Both bonds will be held only if the expected returns are equal

$$2i_{2t} = i_t + i_{t+1}^e$$

$$i_{2t} = \frac{i_t + i_{t+1}^e}{2}$$

The two-period rate must equal the average of the two one-period rates

For bonds with longer maturities

$$i_{nt} = \frac{i_t + i_{t+1}^e + i_{t+2}^e + \dots + i_{t+(n-1)}^e}{n}$$

The n -period interest rate equals the average of the one-period interest rates expected to occur over the n -period life of the bond

Expectations Theory

- Explains why the term structure of interest rates changes at different times
- Explains why interest rates on bonds with different maturities move together over time
- Explains why yield curves tend to slope up when short-term rates are low and slope down when short-term rates are high
- Cannot explain why yield curves usually slope upward