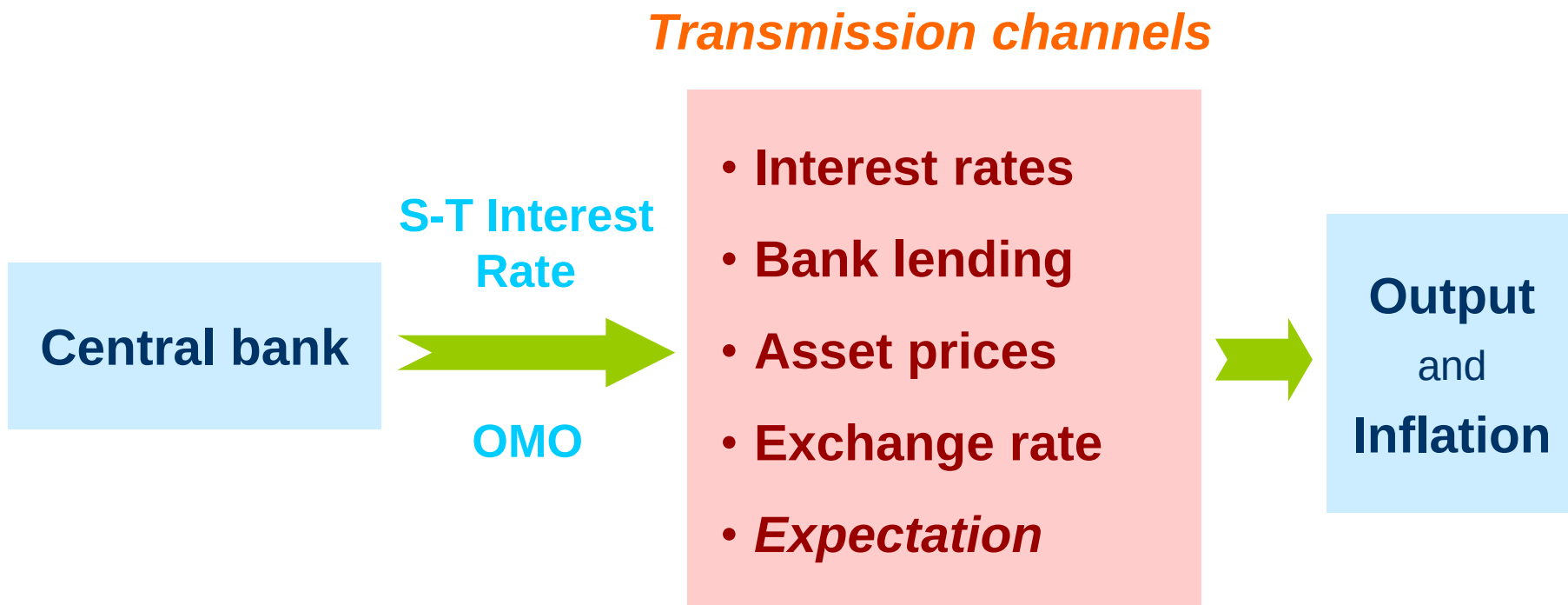


Transmission Mechanism: the Thai experience

Dr. Runchana Pongsaparn

23 March 2012

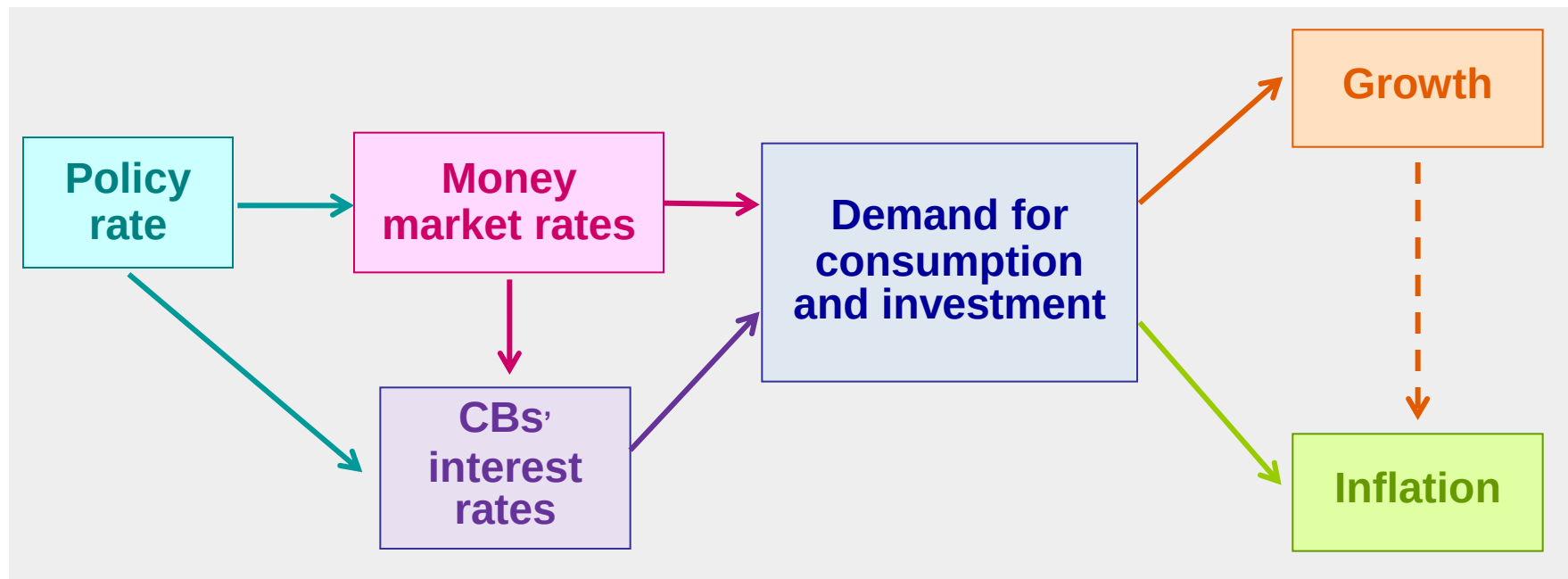
Monetary Policy Transmission



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:

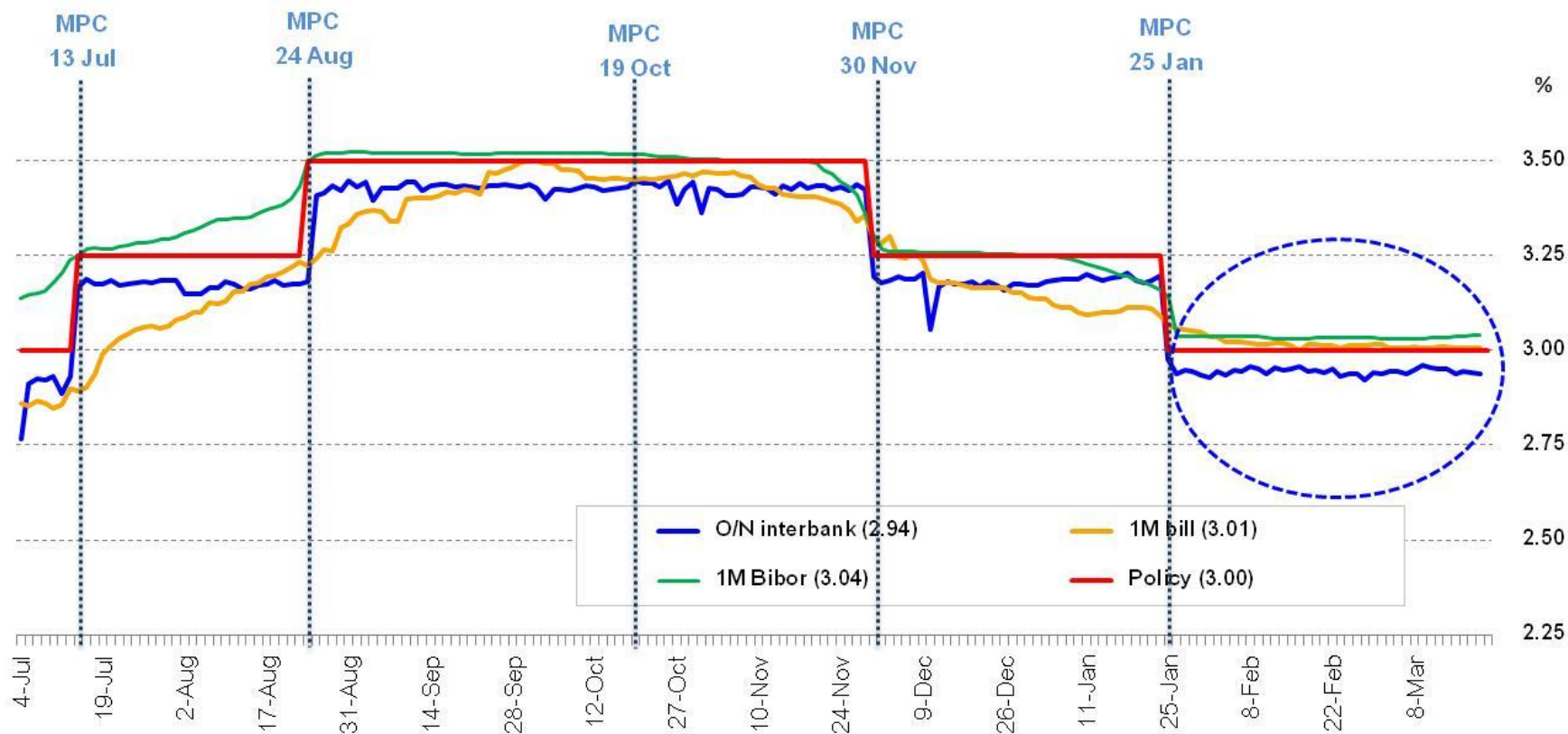
- **Pass-through from policy rate to money market and CBs' interest rates**
- **Degree of excess liquidity**
- **Degree of development of domestic financial markets**
- **Responsiveness of demand for consumption and investment to interest rates**

Pass-through via interest rates and bank lending

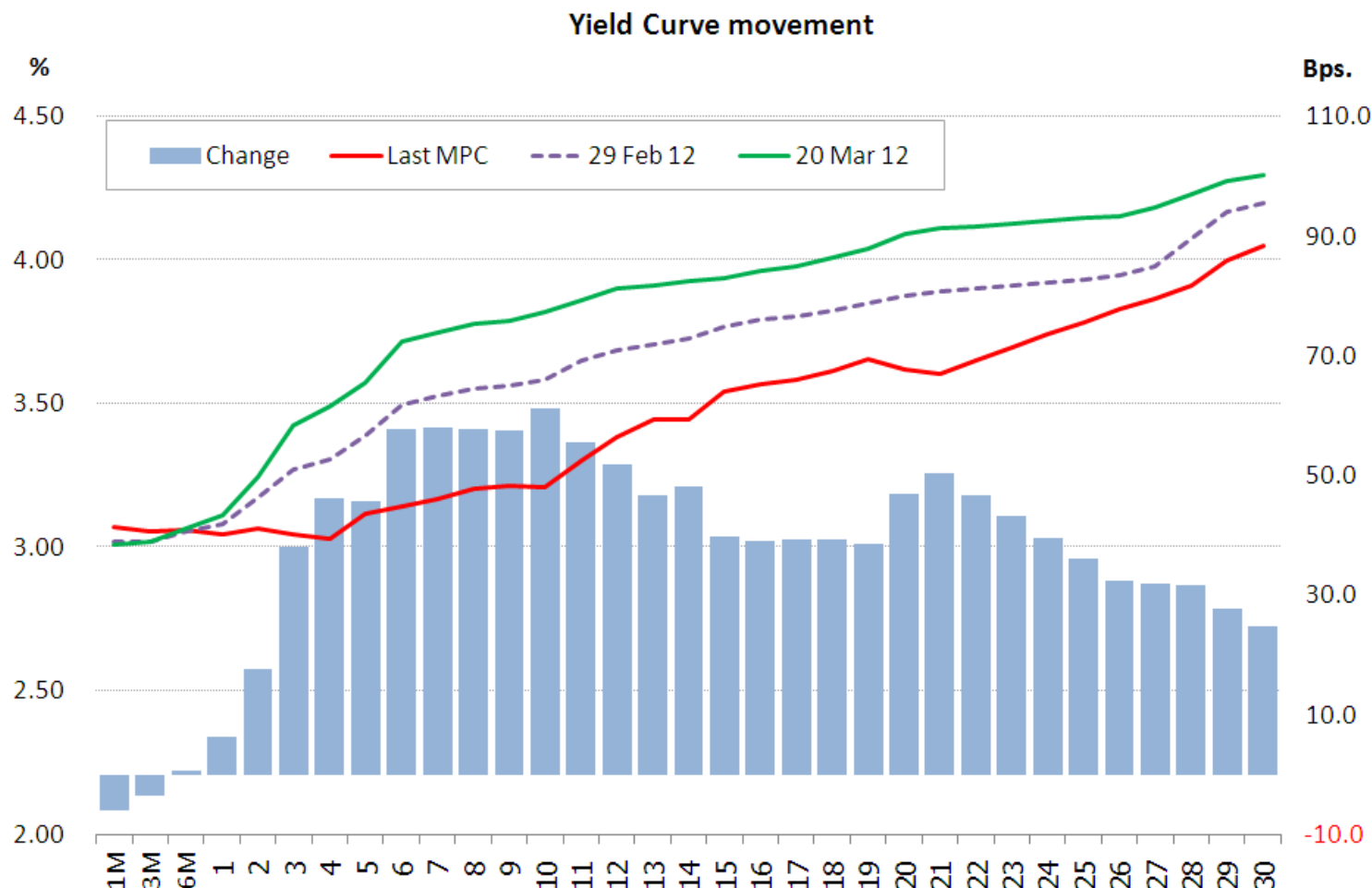
**Policy rate to money market rates
and the term structure of interest rates**

Policy rate to commercial bank rates (Deposit & MLR)

Money market rates and short-term bond yields respond quickly to the current policy rate change in the same direction



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



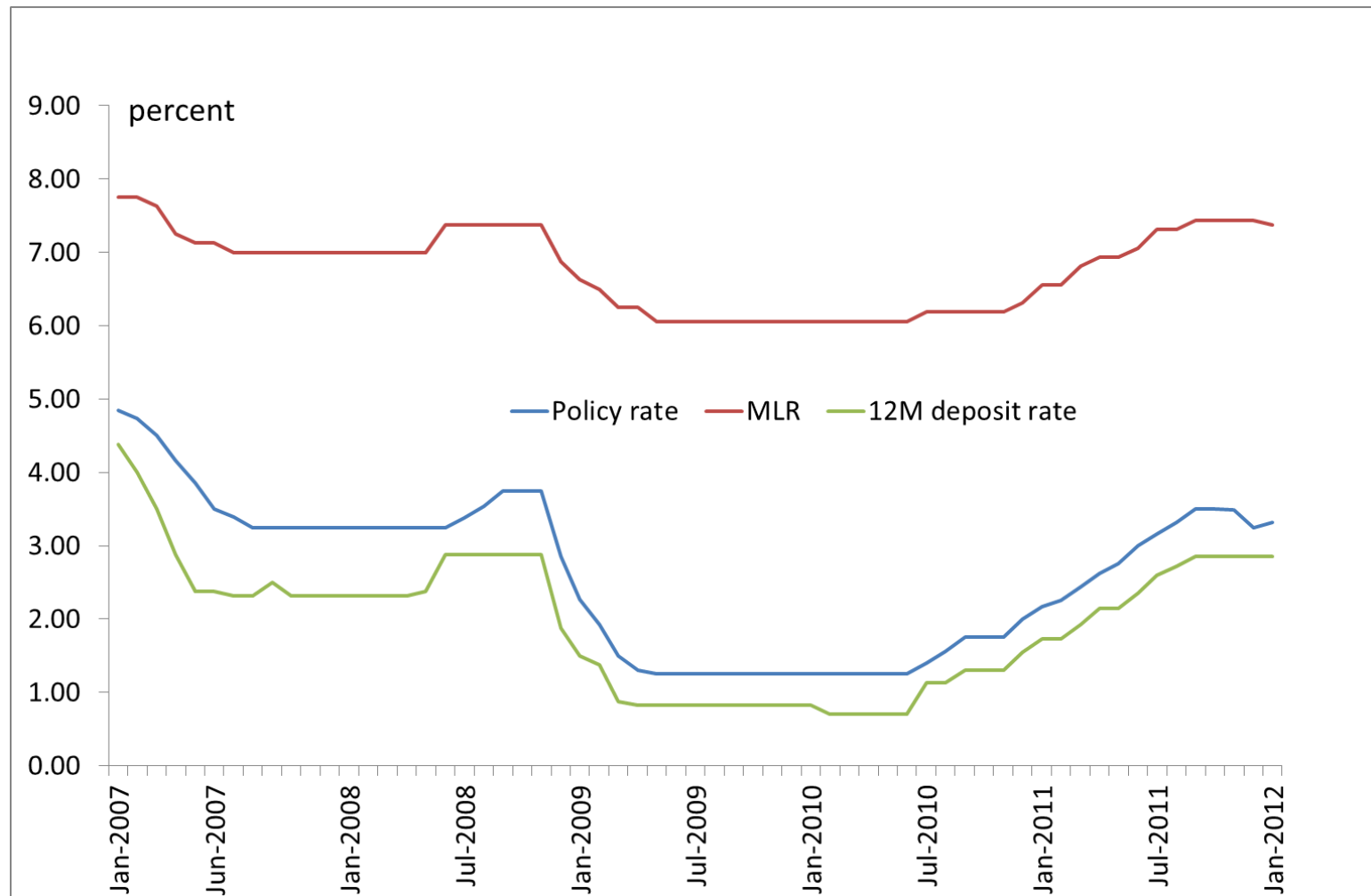
Pass-through via interest rates and bank lending

**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

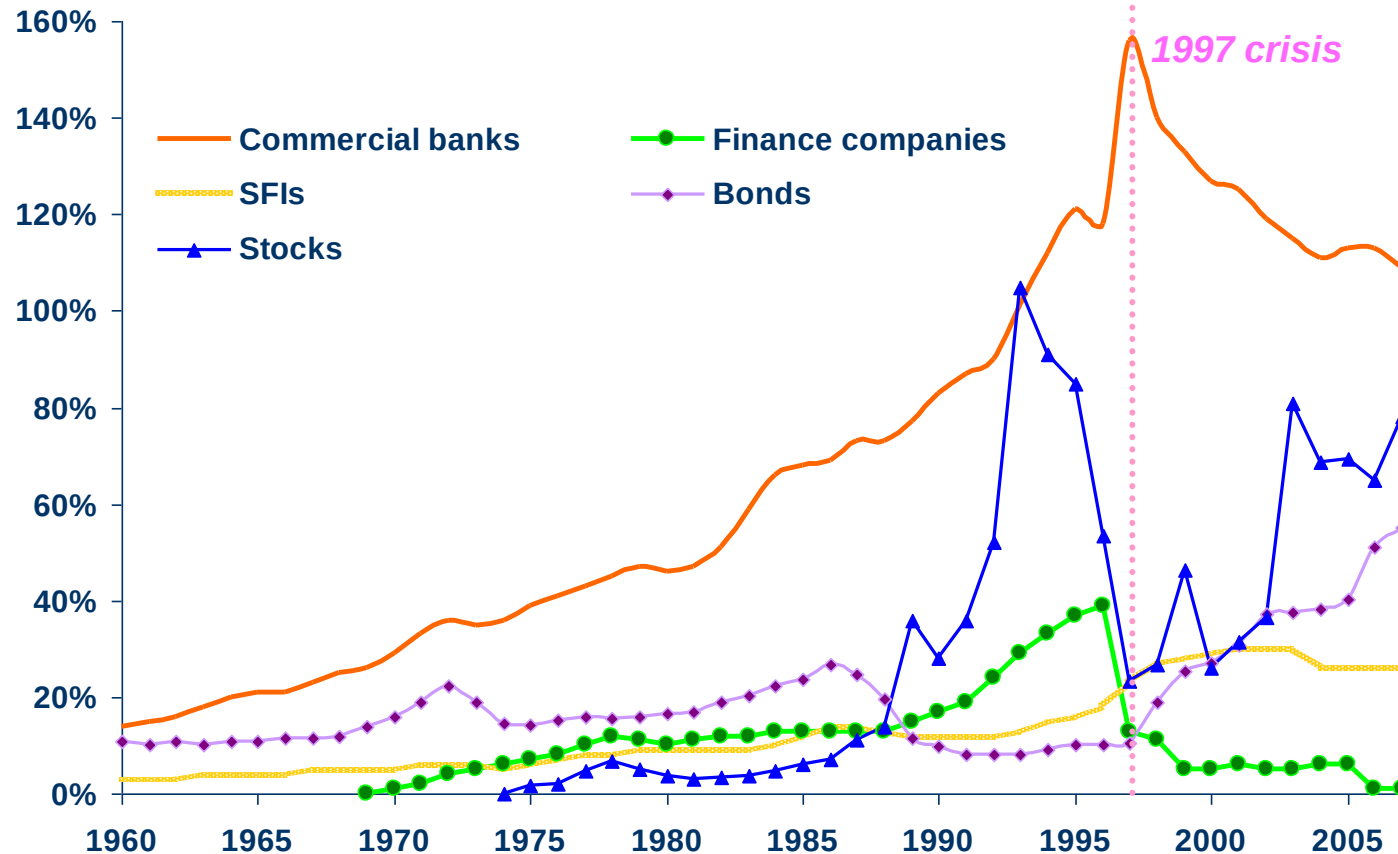


Nevertheless, the shift in financial intermediation away from bank-based lending to money markets has accelerated overall transmission via the interest rate channel.

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

Financing Relative to GDP (1960-2007)

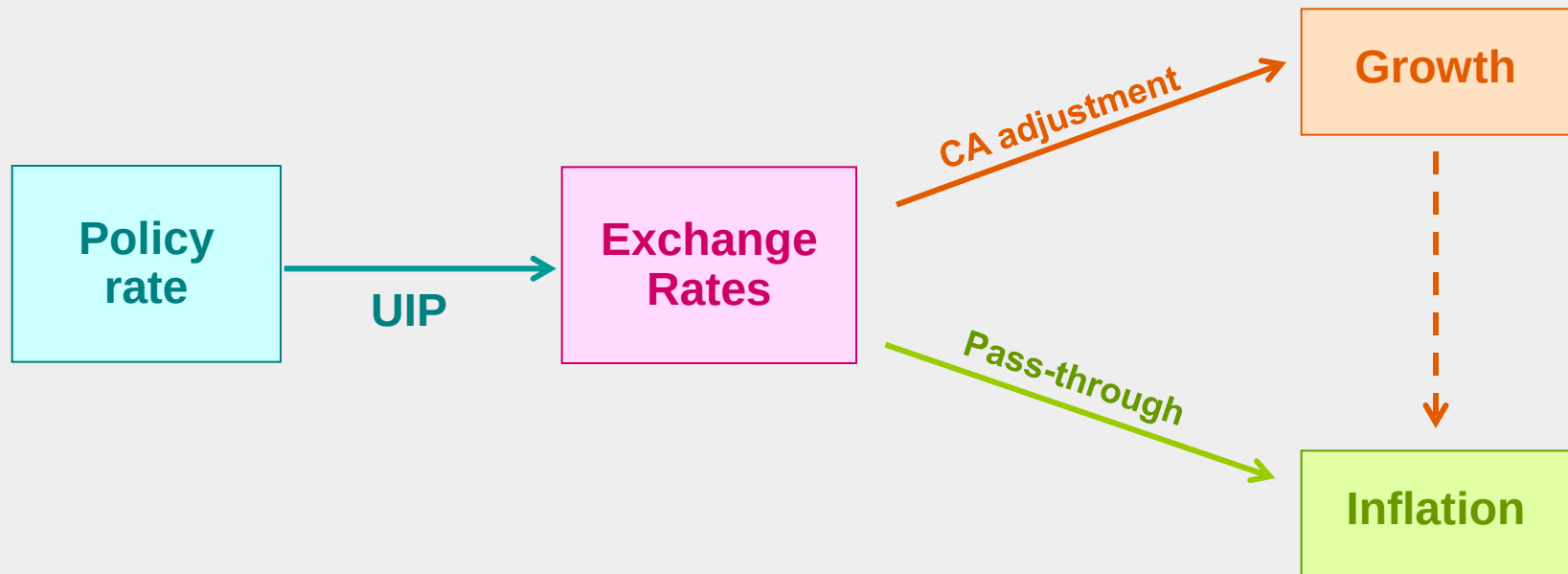
Percent of GDP



Note: Commercial banks, finance companies and credit foncier companies and SFIs (total assets); stocks (SET market capitalization); bonds (outstanding values of public and corporate bonds at par value)

Sources: BOT; SET; TBDC

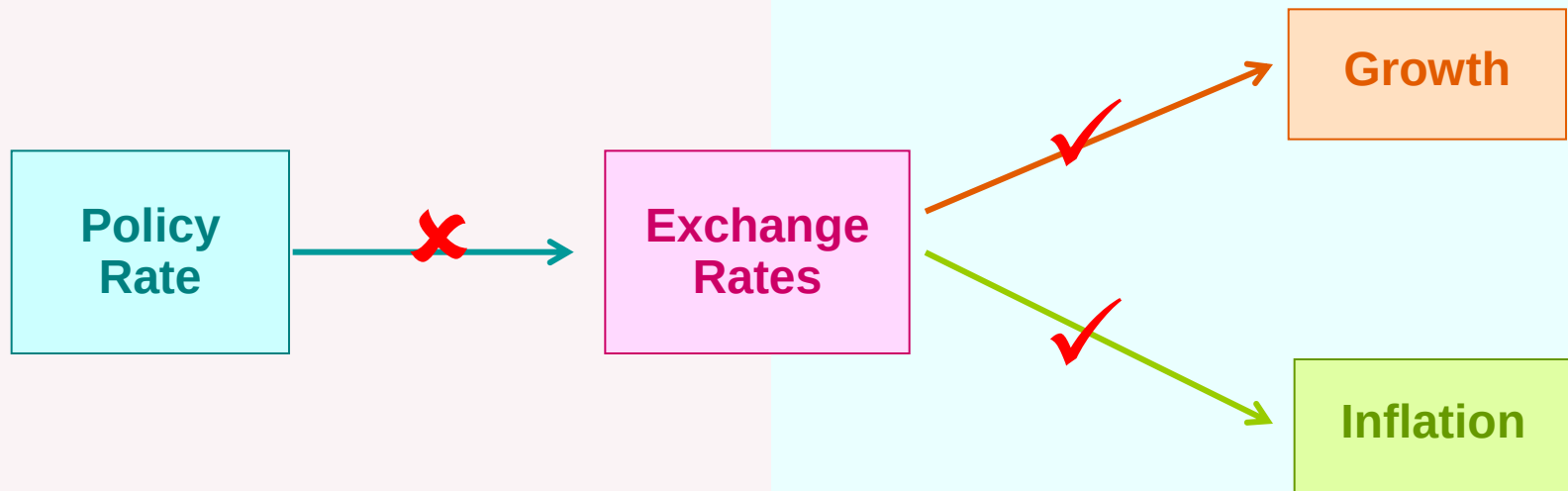
Transmission Channel: 2. Exchange Rate Channel



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

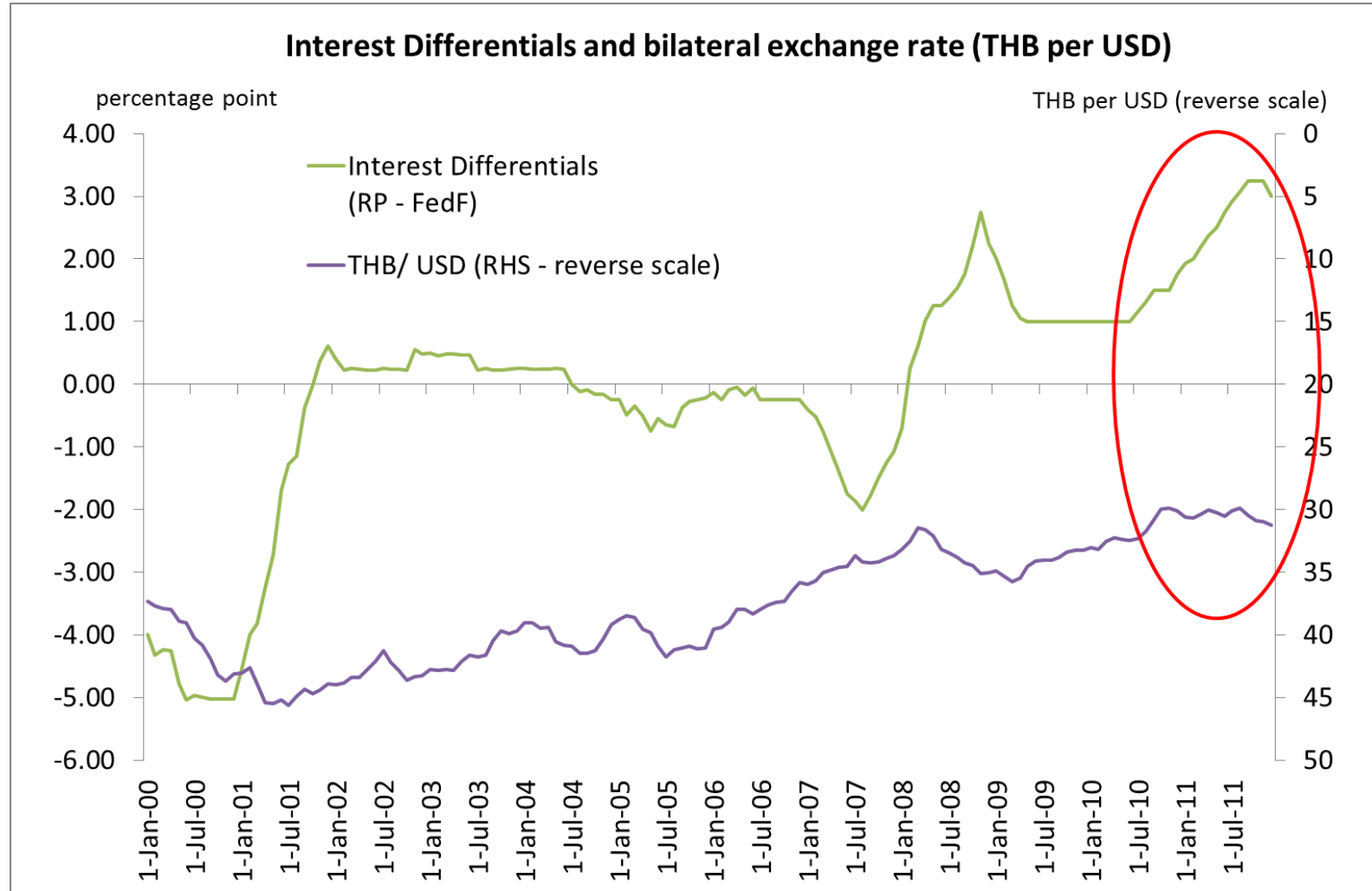
Effect* of 1% depreciation in THB/USD**

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

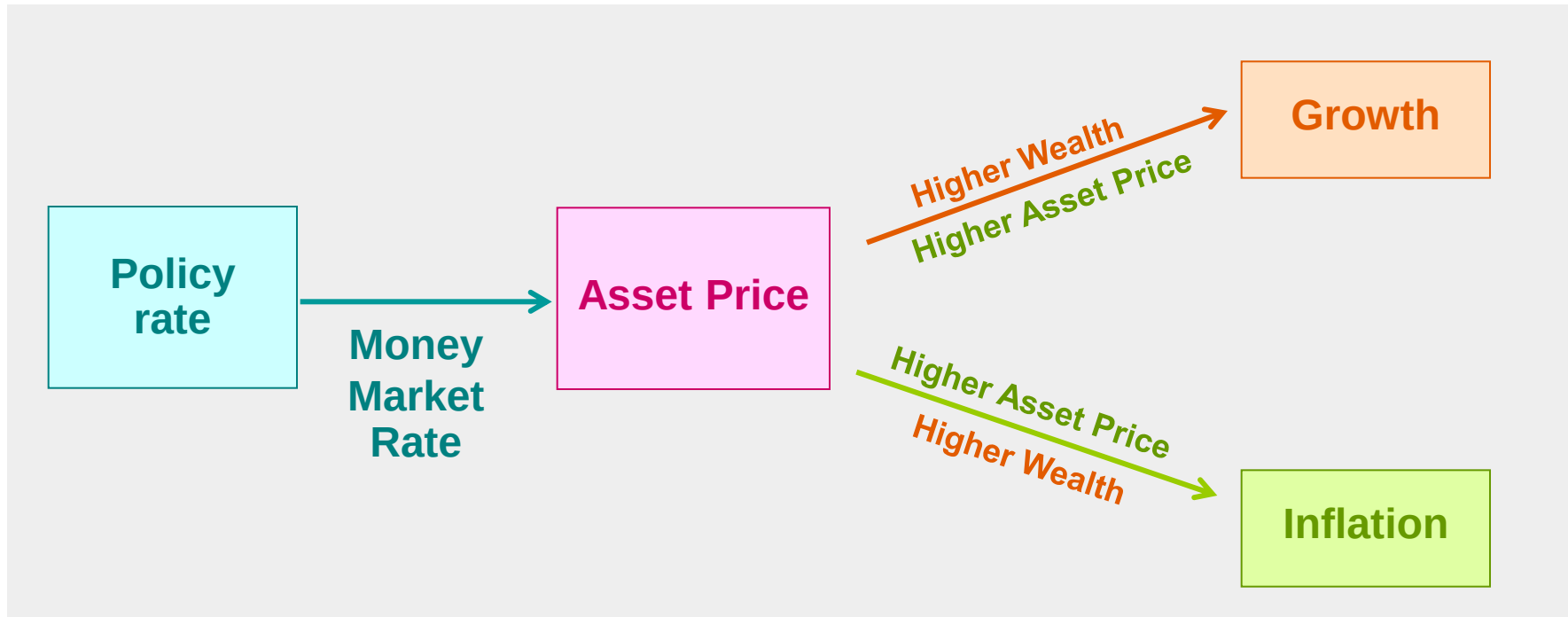
Note: *average effect in 1 year

** 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



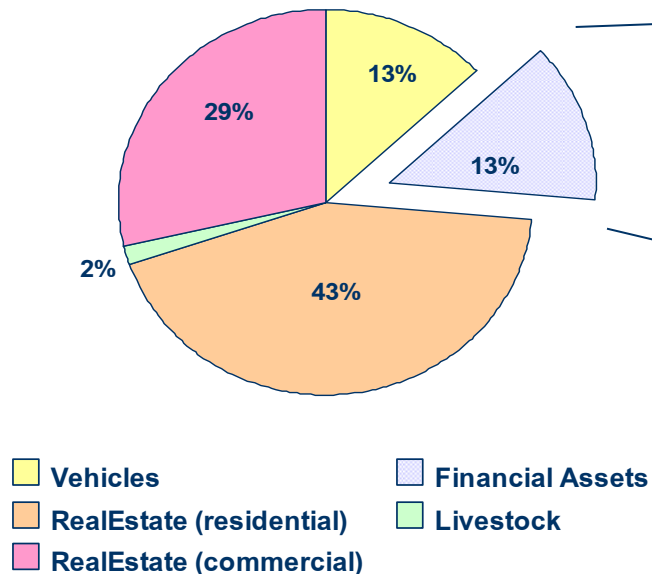
The strength of the asset price channel depends on:

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

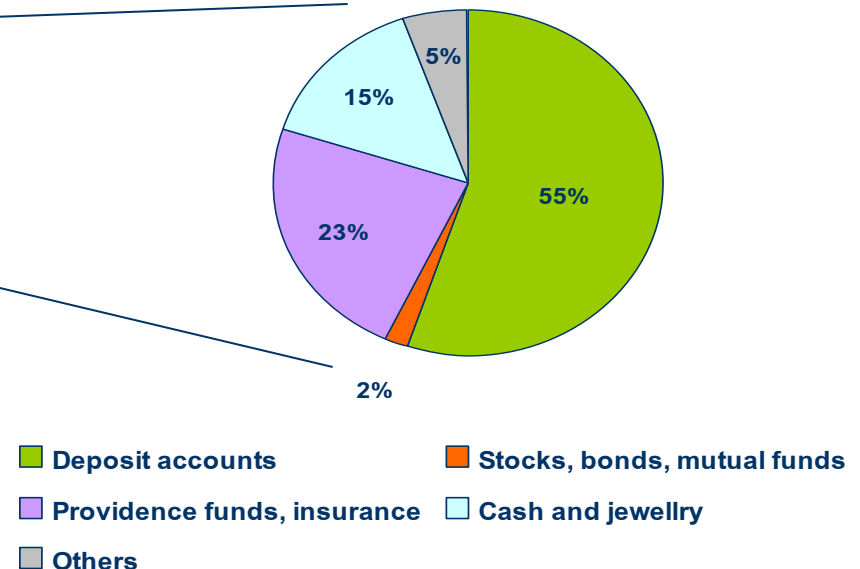
Asset Price Channel remains weak in Thailand

- 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.

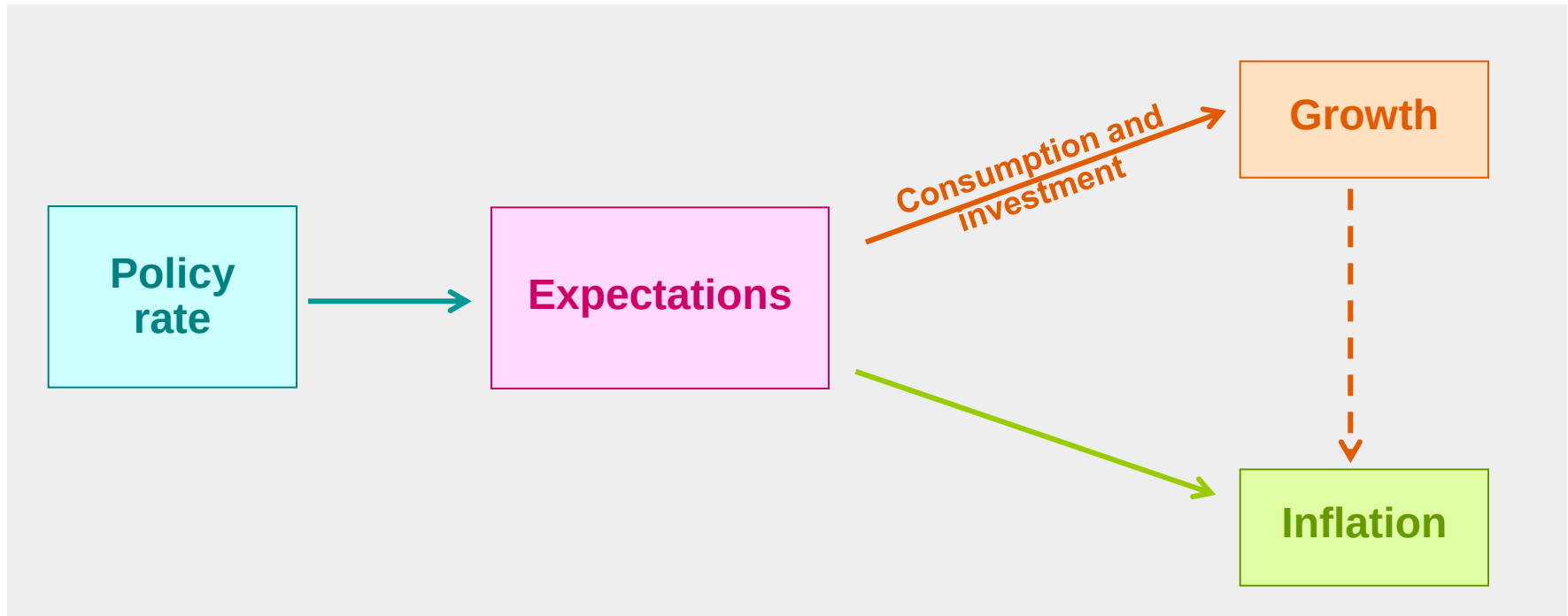
Composition of Household wealth



Composition of Financial Assets



Transmission Channel: 4. Expectations Channel

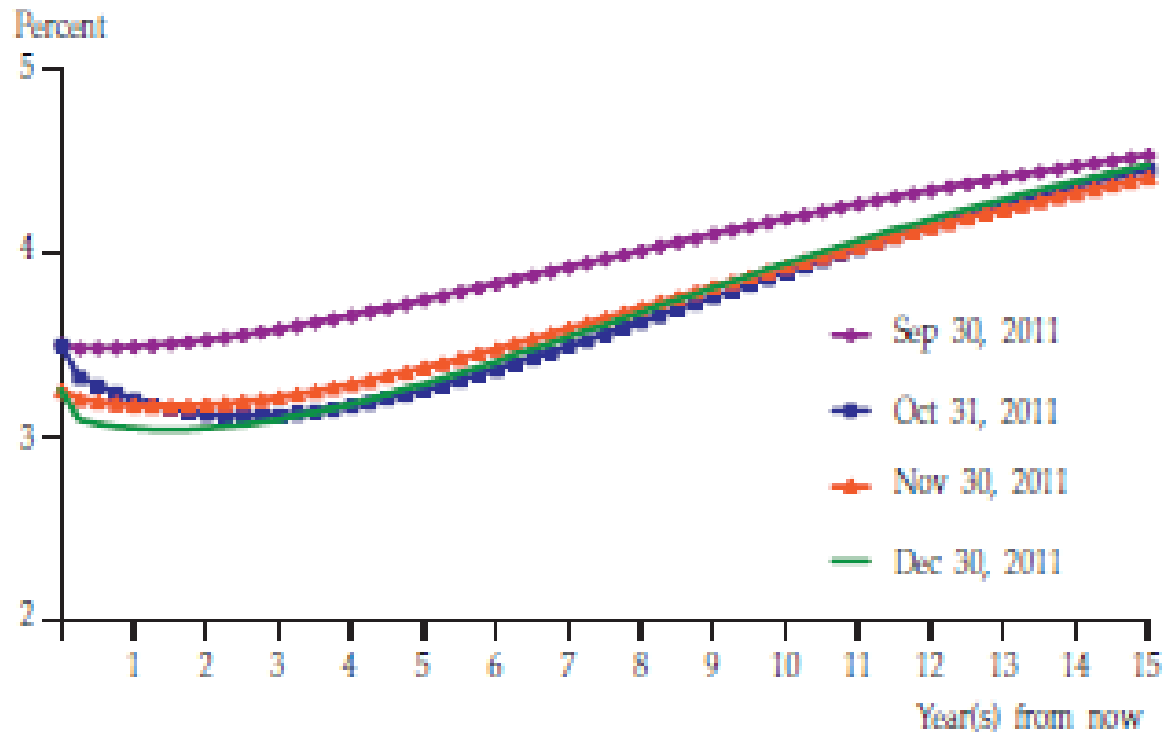


The direction and effectiveness of the expectations channel depends on:

- **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 ...

Chart 3.3 Government bond implied forward curves

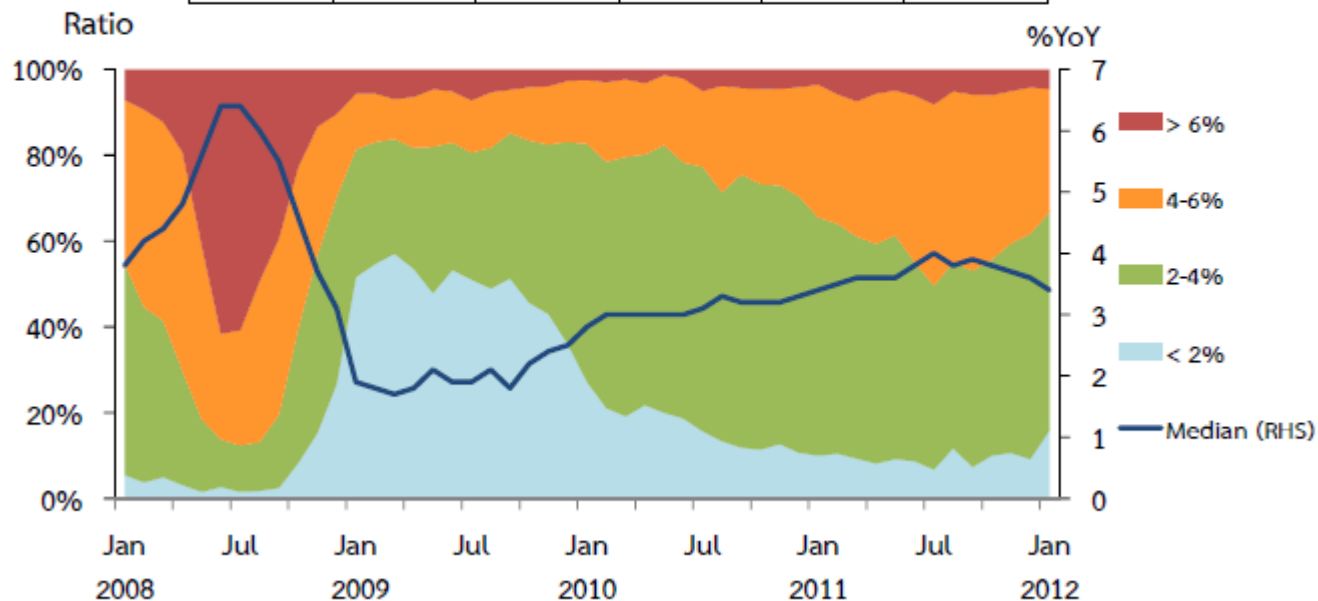


Source: Bank of Thailand

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

Inflation Expectations over the next 12 months

Ratio (%)	<2%	2-4%	4-6%	>6%	Median
Dec 11	9.1	51.7	33.6	4.1	3.6
Jan 12	15.8	50.4	28.4	4.5	3.4



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

$$\begin{aligned}(1 + i_{2t})(1 + i_{2t}) - 1 \\= 1 + 2i_{2t} + (i_{2t})^2 - 1 \\= 2i_{2t} + (i_{2t})^2\end{aligned}$$

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