

Thailand's Monetary Policy

Long term growth and price stability

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Lecture 24

Outline

- Long run relationship: output and monetary aggregate
- Credit to GDP and a risk of financial crisis
- Asset price bubbles
- Quantitative Easing
- Riding the green back
- Should the Fed wait?

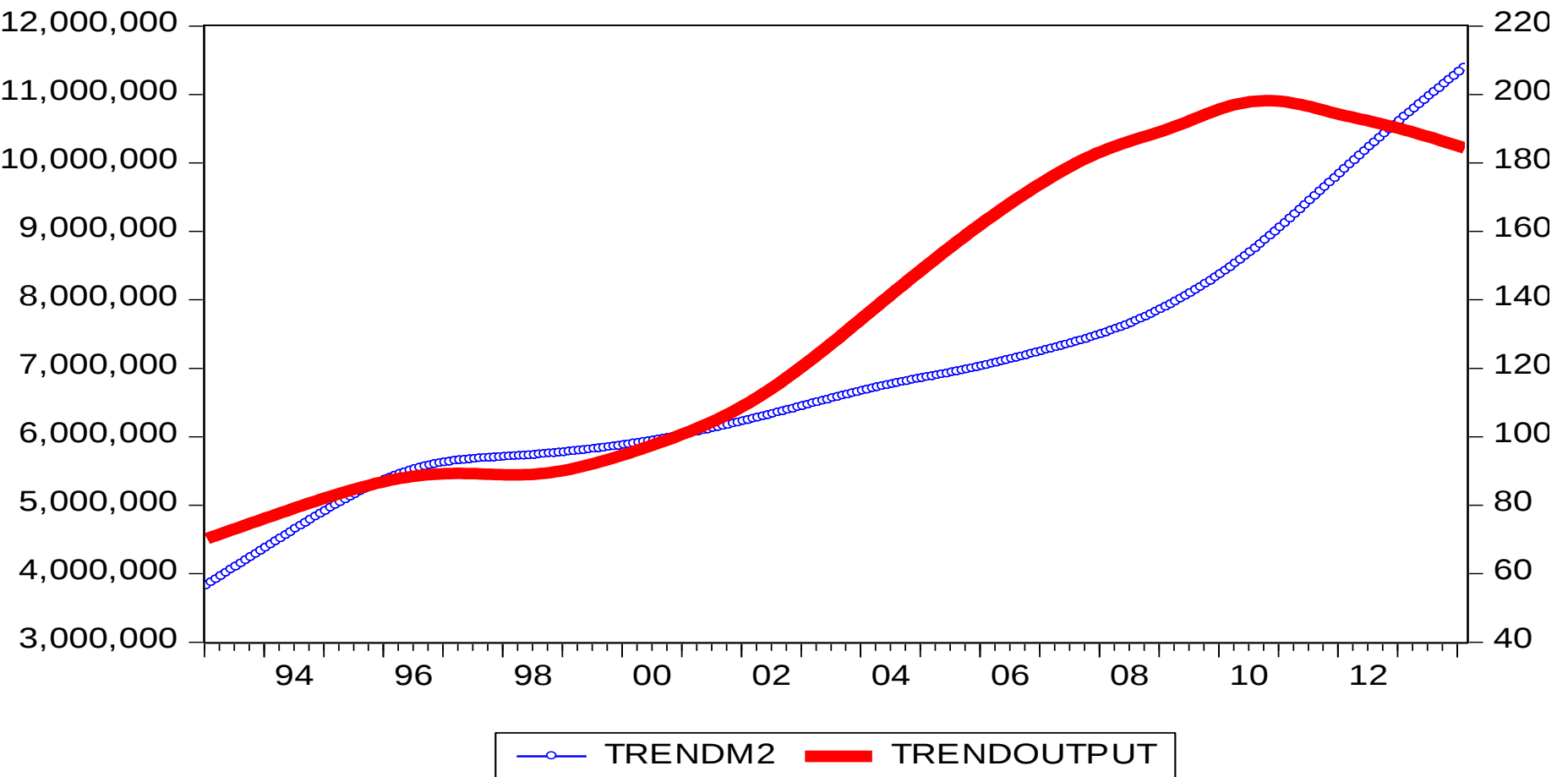
The importance of monetary aggregates

- There is a long-run relationship between output and money supply.
- Expansion of monetary base is caused by capital inflows, intervention in the foreign exchange market, and domestic credit expansion by the central bank to the government and financial institutions.
- To maintain a stable growth path, **monetary base** must be kept in line with output growth

Should the PBC liberalize China's capital account?: Lesson from Thailand

- The rate of growth of the monetary base gained momentum after 1991 when Thailand accepted the IMF Article VIII; thereby liberalizing capital account.
- The establishment of Banking International Banking Facilities (BIBFs) to create Bangkok as a regional financial center resulted in huge and rapid capital inflows.
- The influx of foreign borrowing was so large that it was impossible to sterilize the flows, resulting in to rapid expansion of the monetary base.

Manufacturing Output and Broad Money Supply (M2) 1993-2014



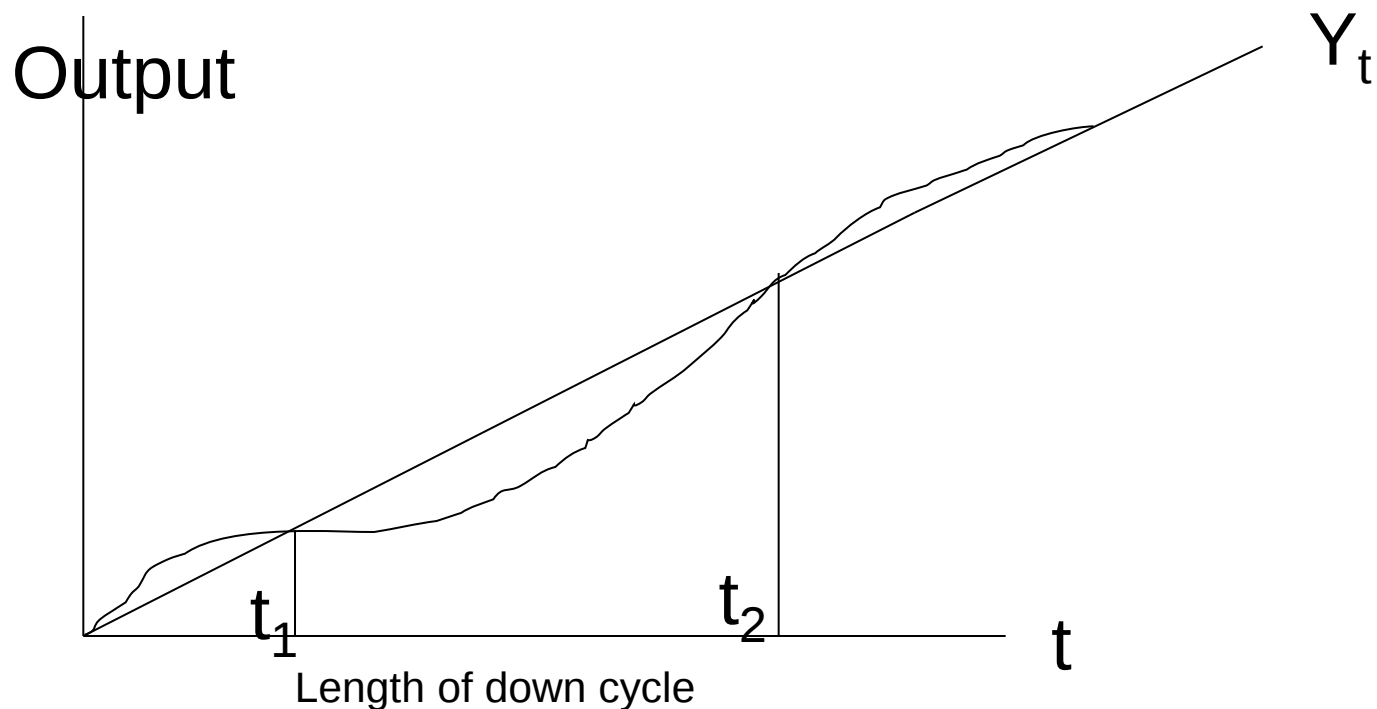
Causal relationship:
two way causation between money and output

- The demand for money function contains output level as an argument.
- The production function includes money supply as an argument.
- Changes in the quantity of money supply affects output, which in turn result in changing level of the demand for money.

Deviation from the long-term growth path

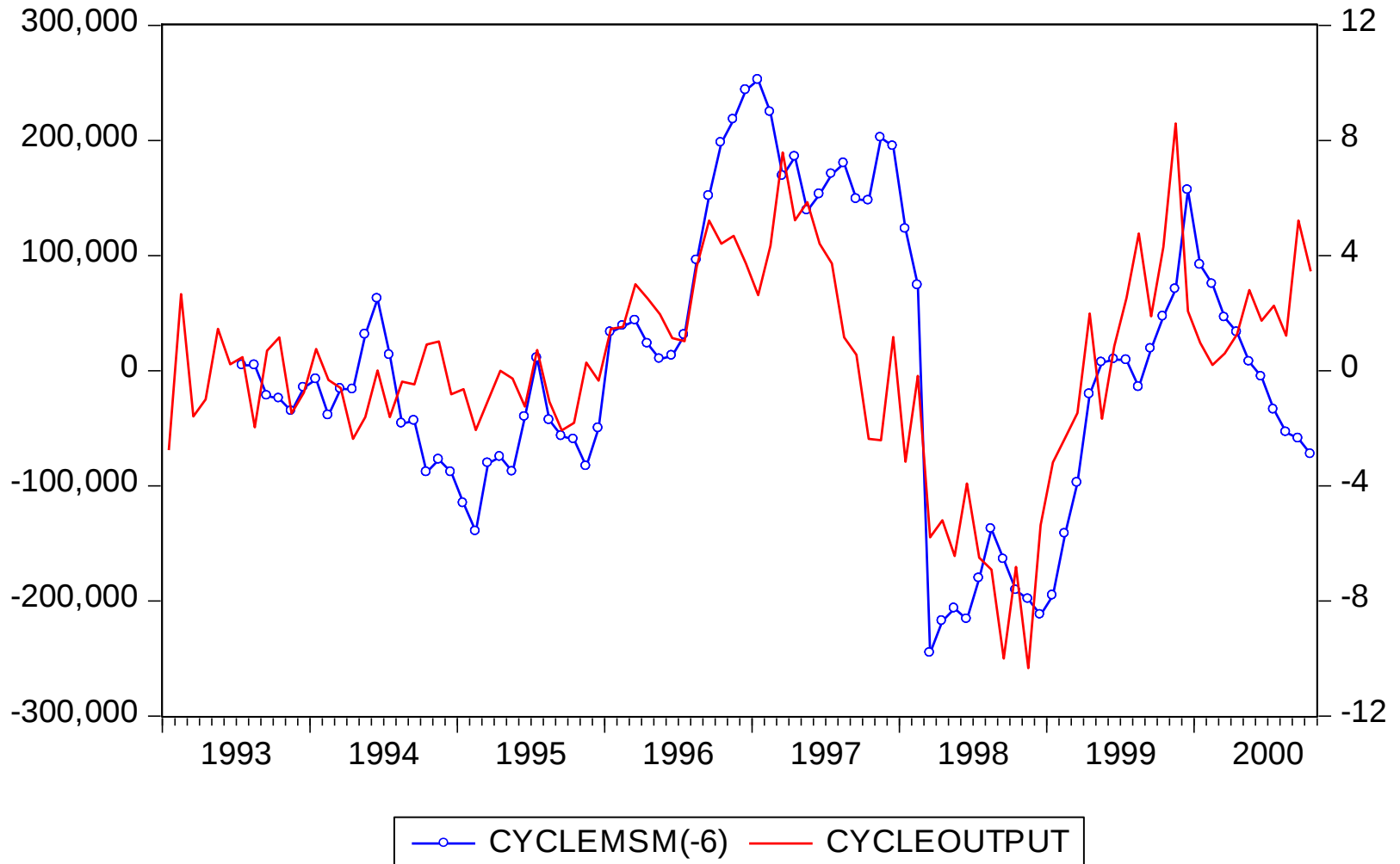
- Long-run output path is dictated by productive capacity of the economy.
- Monetary aggregates must increase at the rate corresponding to the trend growth rate of real output.
- The lending booms and contraction lead to deviations of output from its long-term growth path.

In a mild cycle, output fluctuates around its long-term growth path
($Y_t = Y_0 e^{gt}$)

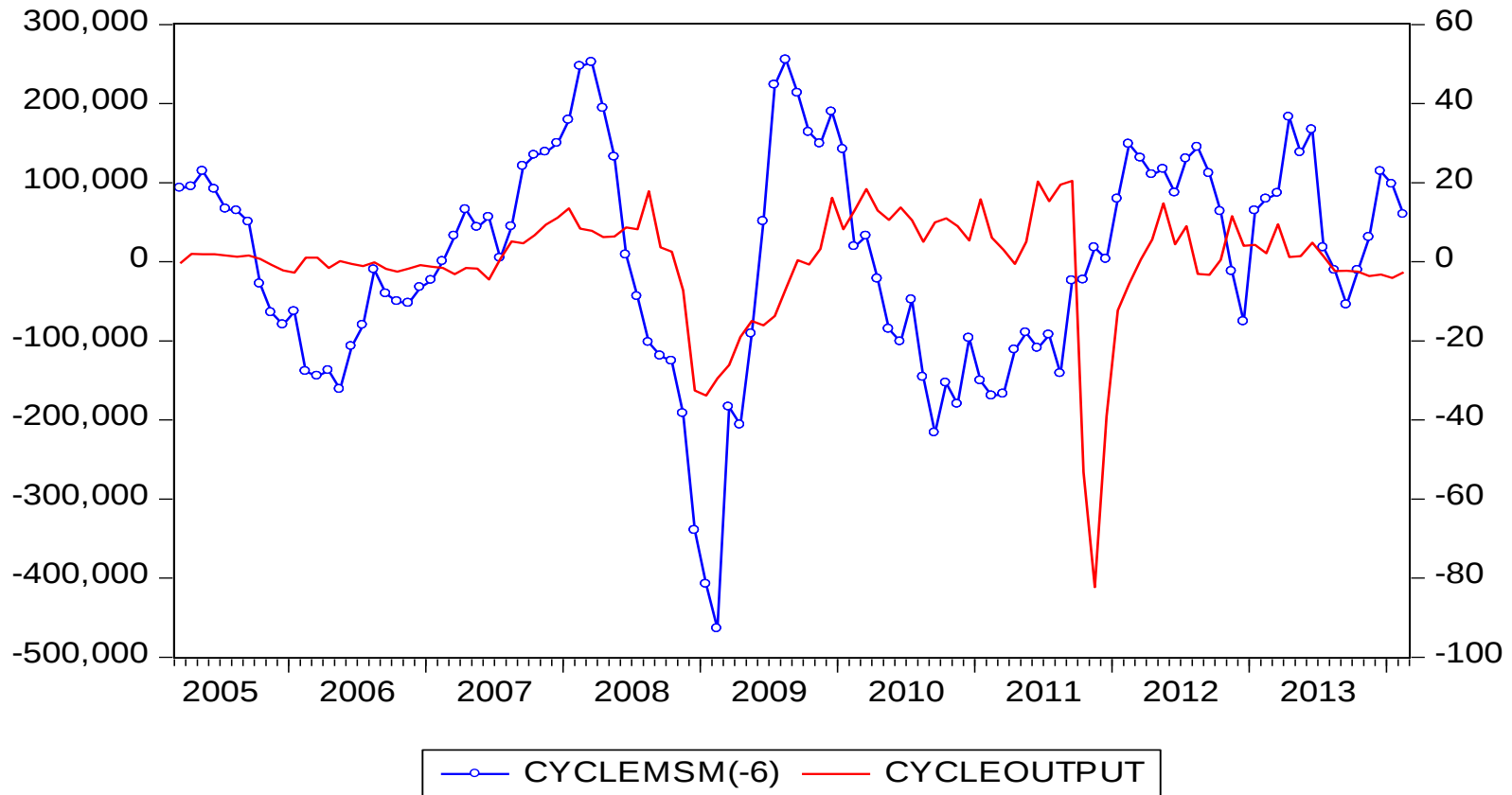


g = exponential growth rate of output over time(t)

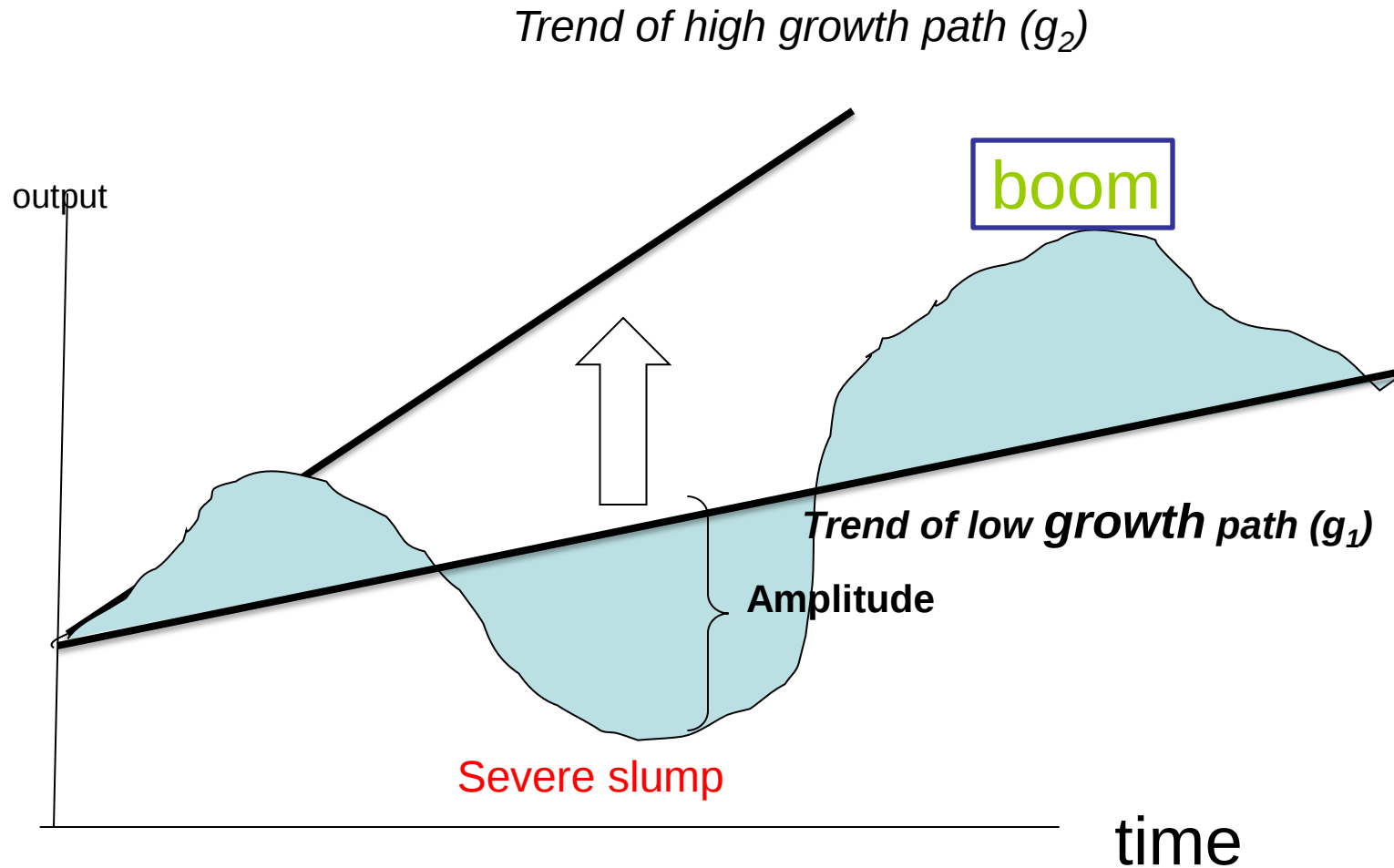
Cyclicalty of money and output (1993-2000)



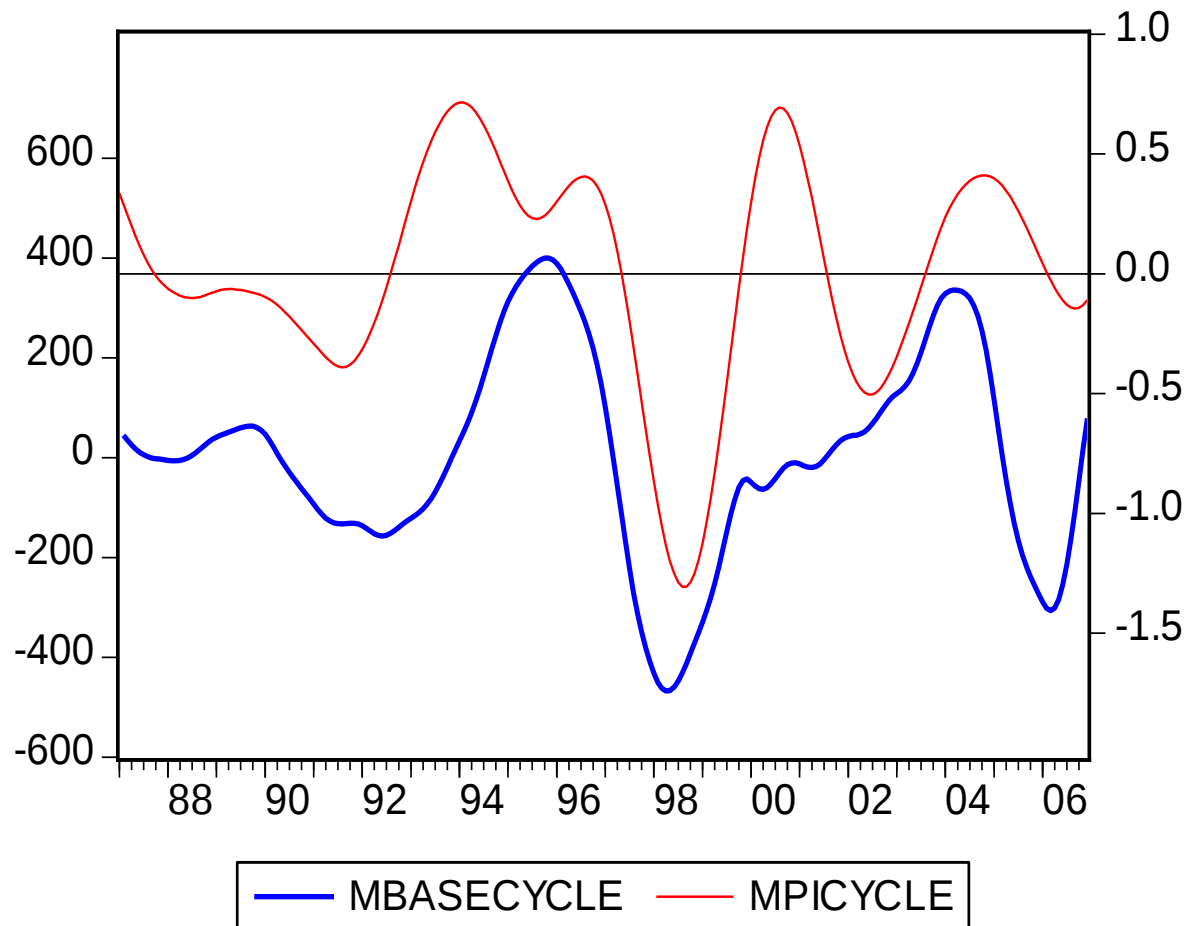
Cyclicalty of money and output variables (2005-2014)



Severe Business Cycles



Monetary Base and output cycles



Output responses to changes in monetary growth rate

- When the monetary base grew excessively over its long-term trend, output growth would also expand at the rate faster than its normal growth rate.
- When the monetary base contracted below its normal growth path, the economy experienced a downturn.

From peaks to troughs of economic cycles

- The peaks of monetary growth were associated with the peaks in manufacturing output.
- Similarly, the deepest contraction in output synchronized with the trough in the monetary cycle.
- Monetary base changes have a strong impact of output fluctuation.
- Cyclical movement in the monetary base can be used to predict the cyclical movement in industrial output.

Policy lessons

- Both monetary and output cycles are related..
- Shocks in the monetary sector can be transmitted into the real sector and vice versa.
- The implication for stabilization policy is that monetary authority should **avoid** large swings in monetary aggregate.

Monetary policy transmission channels

- Interest rates
- Credit availability
- Exchange rates
- Asset prices

Thailand's monetary policy transmission mechanism

- The exchange rate channel does not work properly when the Bank of Thailand intervenes in the foreign exchange market.
- The ***credit channel*** through credit availability effect is the most important channel.

Some situations of ineffective channels

- Liquidity trap
- Interest-insensitive investment
- Exchange rate intervention
- Rudimentary money and capital markets

Cost and quantity of bank credit

- Monetary policy instrument is effective in changing the cost of capital.
- Whether the interest rate can exert an immediate impact on the real economy depends on the responsiveness of consumption and investment to the user cost of capital.
- It is possible that the quantity of credit or credit availability is also vital to investment and durable consumption.

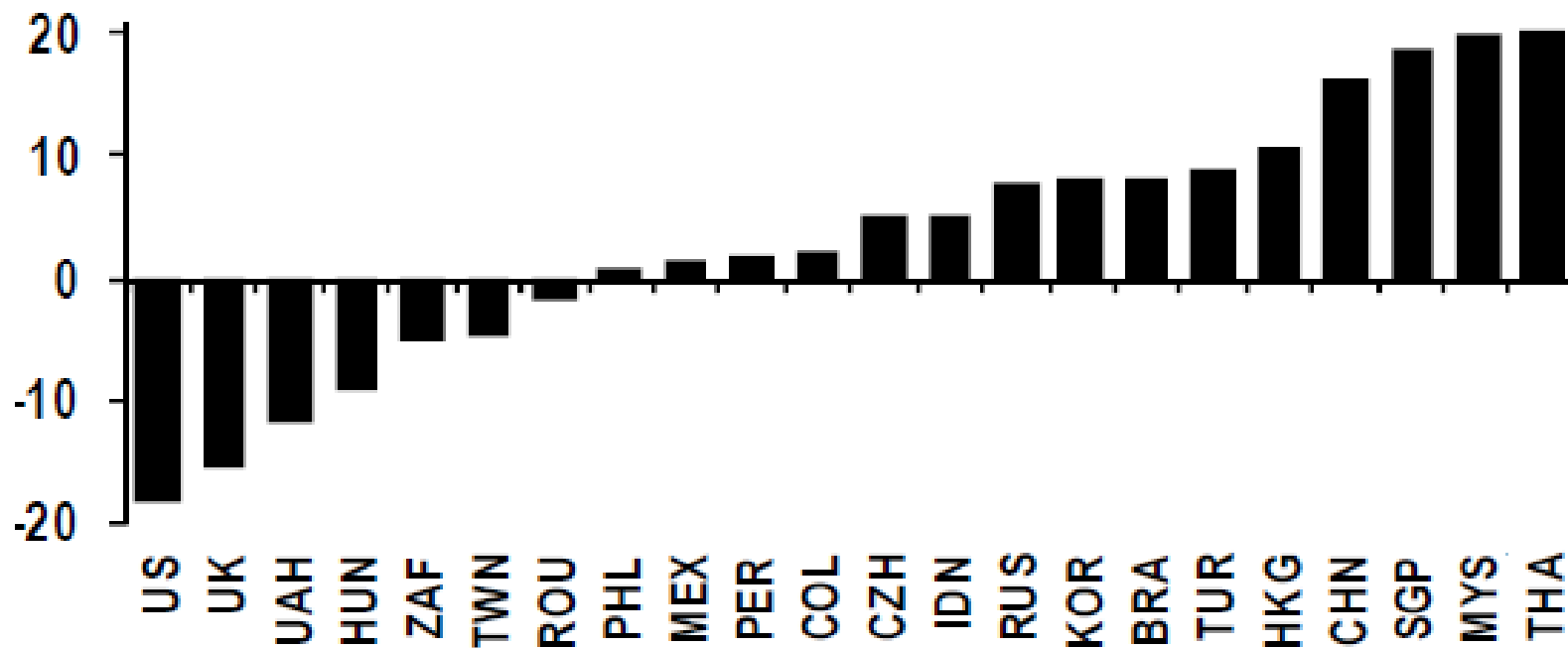
IMF Study: Credit to GDP and risk of a financial crisis

- IMF researchers have found that increases in the credit to GDP ratio in excess of 5%-pts in one year were associated with a heightened risk of a financial crisis.
- In our EM aggregate, the credit ratio has increased about 25%-pts since 2008, or 4%-pts per annum for six years straight. Importantly, the metric only reflects bank loans.
- Non-bank lending also has been strong in some countries.

Bad habits: Over borrowing

Household debt as a share of GDP

%pt chg since 2008

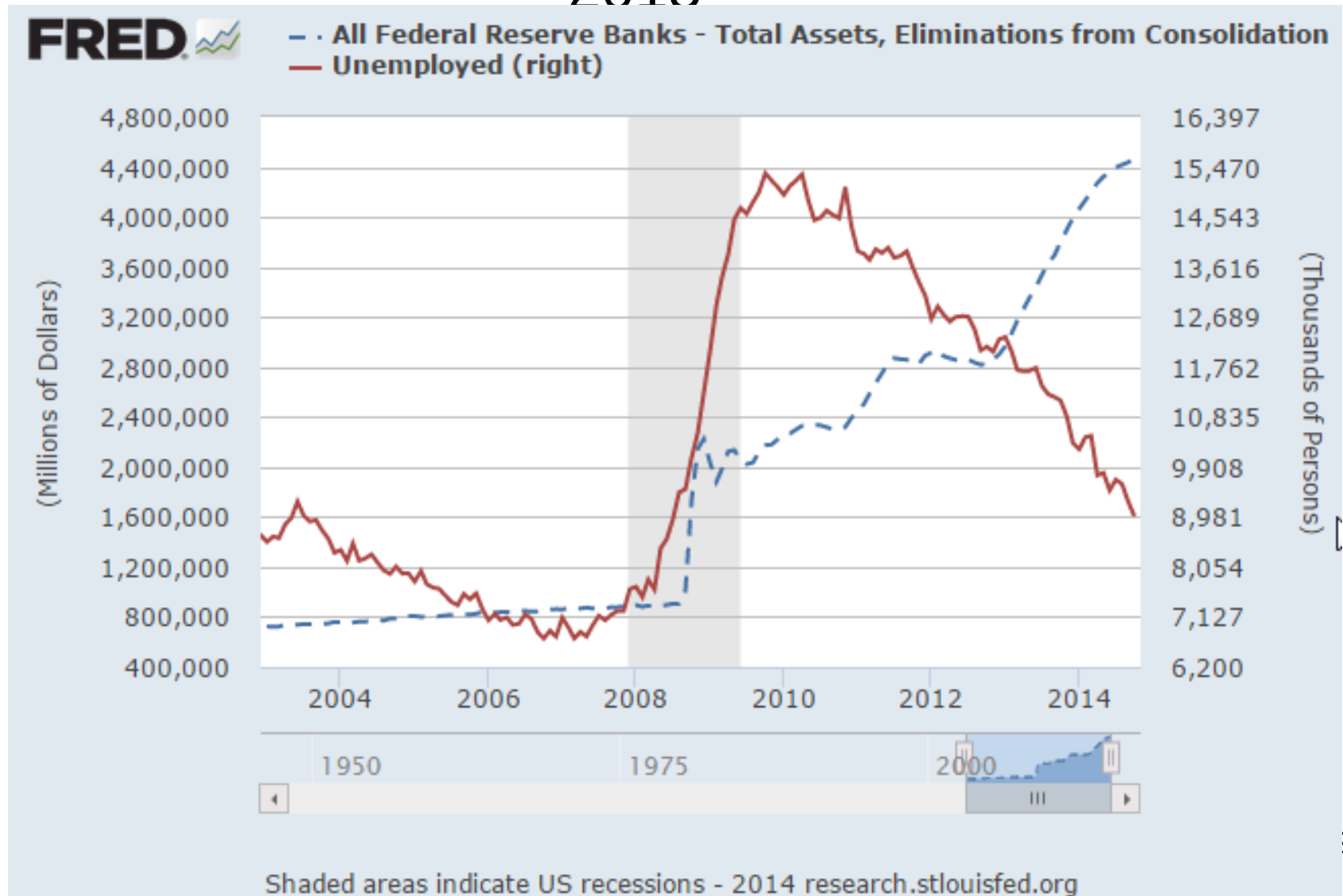


Source: J.P. Morgan, BIS, national central banks

The pull of instant gratification from purchasing
Expensive products

Impact of the FED's quantitative easing

US unemployment rate declined to 5% in October 2015



The trigger: Fed's normalizing interest policy

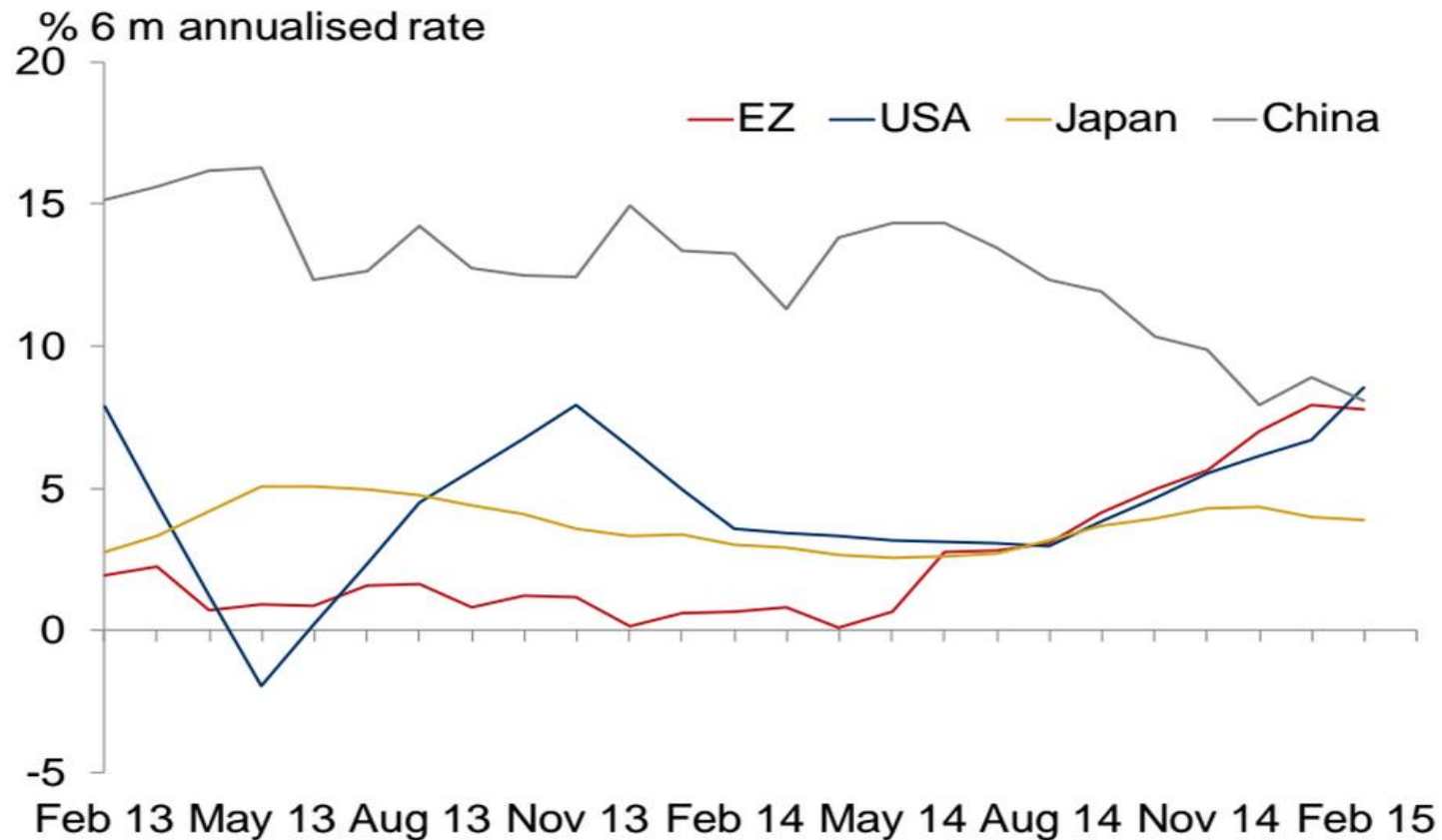
- It is ***not*** clear how the buildup in EM private leverage will end, or what its repercussions might be.
- One likely trigger is Fed tightening (Before the end of 2015?).
- History suggests a rise in US interest rates will pressure the emerging economies, draining portfolio flows and weakening currencies.

A doom scenario

- Domestic interest rates are likely to rise, especially in the more stressed countries where monetary authorities are compelled to tighten policy.

China's broad money growth (compare with Thailand's M2)

World: Broad money



Money and economic activity

- Broad money which includes physical currency, some sorts of deposits in banks, and some sorts of very liquid securities — has slowed to the point at which it is actually slower than that of the US.
- Growth in money supply is definitely not perfect, but it provides a rough measure of economic activity in the medium term, so acceleration in the US would generally be a good signal, and the slump in China is a very bad thing.

Inflation targeting in theory

- An **independent** central bank is a requirement for successful inflation targeting.
- Inflationary expectations can be **reduced** since credibility of monetary policy is enhanced by both institutional and instrumental independence of the central bank.
- As more countries have abandoned fixed exchange rates, they desperately need a **nominal anchor** for the price level.

Caveat on inflation targeting

- For countries that are highly dependent on external trade, inflation targeting is akin to targeting the exchange rate.
- Adopting inflation targeting implies a **commitment to no other nominal targets.**
- When there is **no close and stable relationship** between the short-run monetary instruments and long-term interest rates (under developed bond market), a policy rule like the Taylor's rule may not produce a desirable outcome.
- In particular, if monetary policy has a **long and variable lag effects.**

Flexible inflation targeting strategy

- The central bank's key interest rates responds to inflation ***and*** real exchange rate changes.
- There had been an attempt to prevent the appreciation of the real effective exchange rates.

Flexible Inflation Target (FIT)

- Many central banks have adopted FIT
- FRB in 2012 aimed at 2% target
- BOJ announced 2% target in Jan 2013
- But FIT has problems
- Financial stability and prevention of asset bubbles may override FIT

How to prick the bubbles by tightening monetary policy

- Control domestic credit from exploding
- A positive relationship exists between speculations in stock and property markets.
- There is a question regarding to how and where the bubble started.
- The lead-lag relationship between the two bubbles can shed light on preventive measures to prevent the busting of asset bubbles.

$$Credit = \kappa MB$$

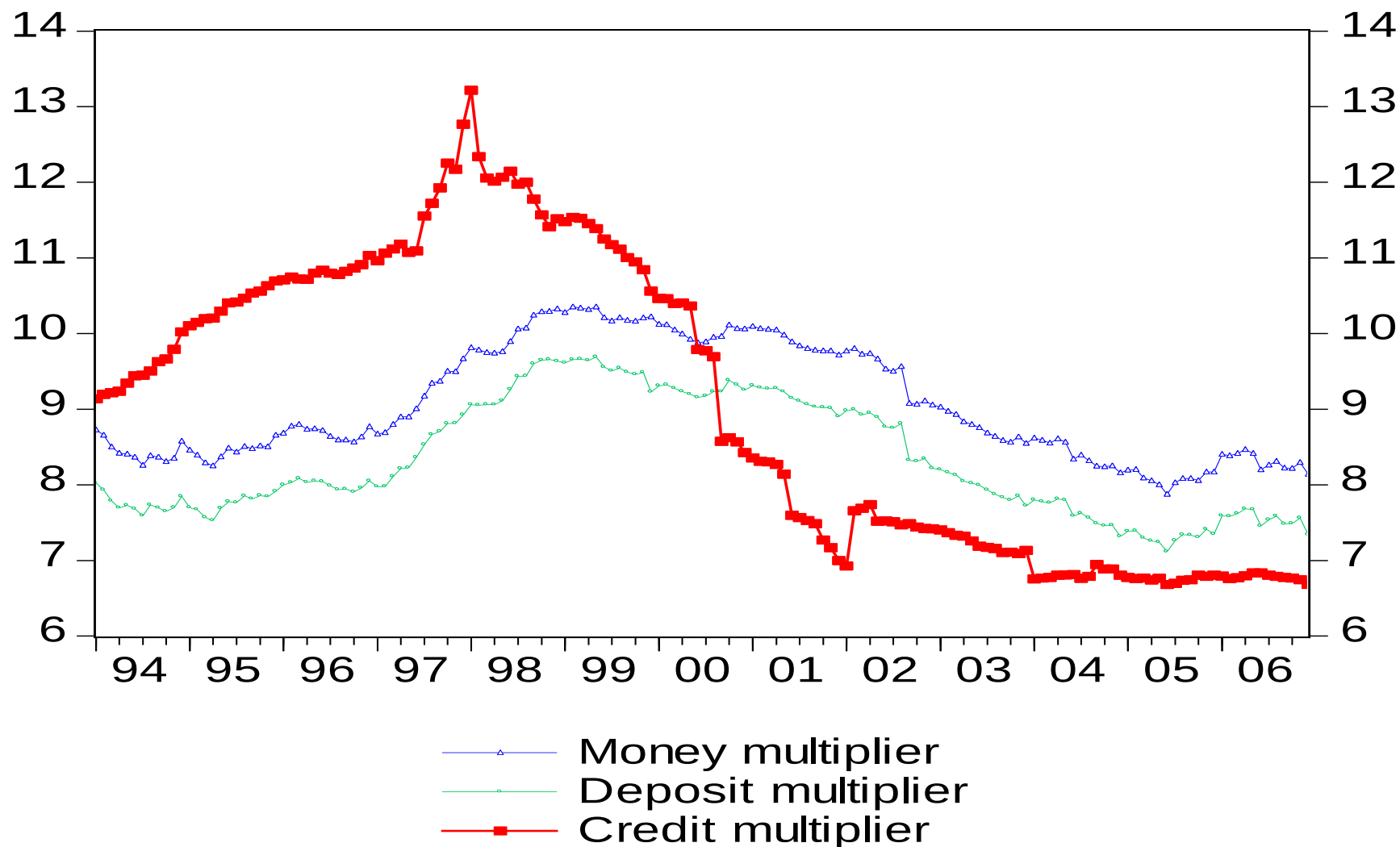
$$\kappa = Credit / MB = \text{credit multiplier}$$

$$MB = NFA + CoG + CoF$$

$$\kappa = \kappa(\bar{R}, r_L, \bar{r}_p, \psi)$$

- Prior to the economic crisis in 1998, there was excessive lending, which can be captured by the **rapidly rising credit multiplier**.
- CoG = claim on government by the central bank
- CoF=claims on financial institutions

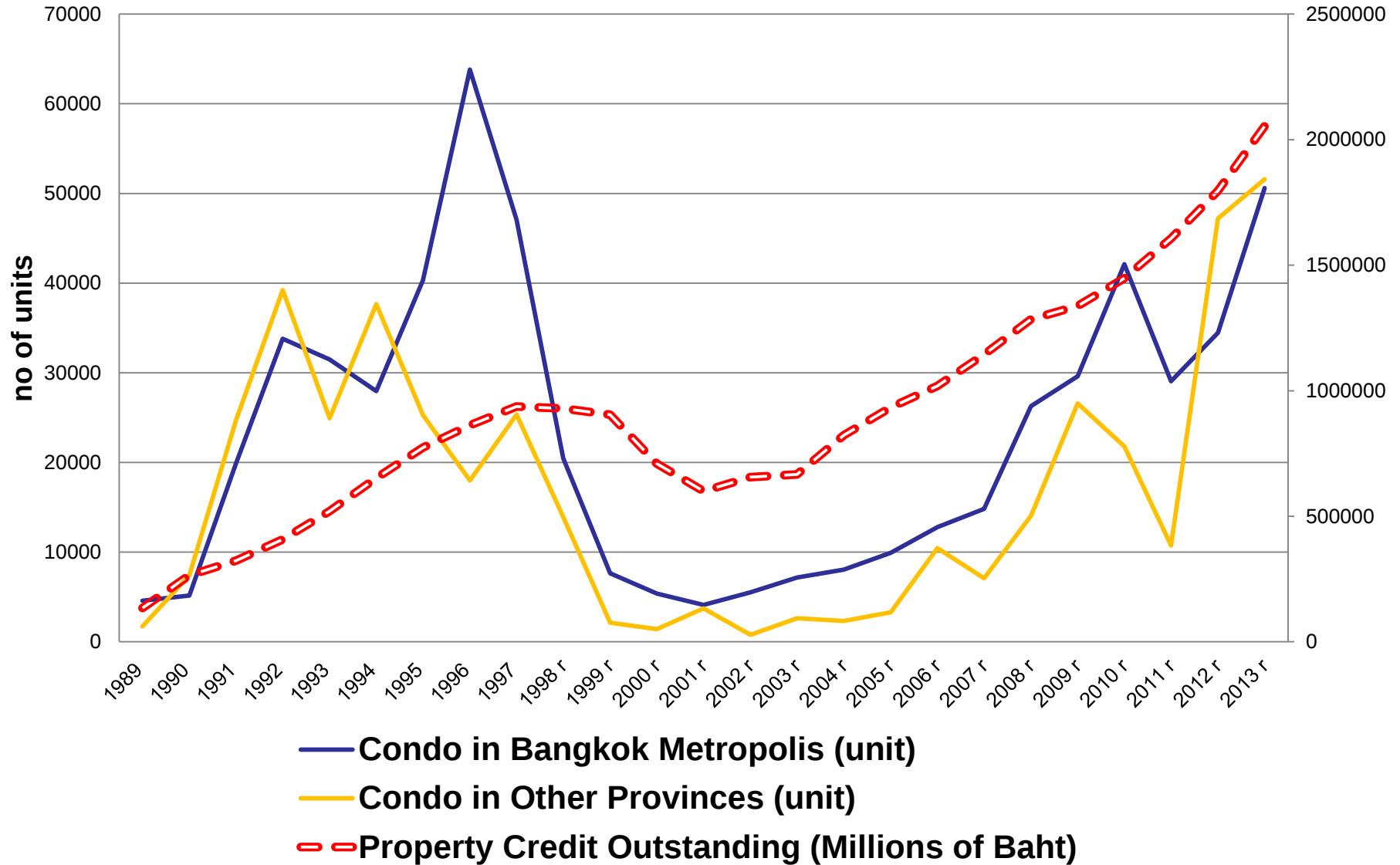
At the peak of lending boom



An early warning indicator

- Credit multiplier increased abnormally high and deviated entirely from the behavior of deposit and money multipliers.
- We can monitor the financial sector by using the credit multiplier as an early warning indicator for over-lending.

Thailand's property credit and speculation



From Minsky Moment to Minsky Meltdown

- Minsky Moment: The period of accelerating credit growth that eventually lead to economic contraction and asset prices depreciation.
- The term Minsky Moment was first coined to describe the Russian financial crisis in 1998.

By suppressing credit multiplier

κ = credit multiplier

$$\kappa = \kappa(\bar{R}, r_L, \bar{r}_p, \psi)$$

Raising reserve requirement ($\bar{R}$) and key policy rate ($\bar{r}_p$)

PBC has done those measures to stop the bubbles

The central bank can prick the bubble

- Raising the BOT's lending rate (r_p) reduces the credit multiplier.
- Reducing loan-to-value (LTV) ratio makes speculators having difficulty finding money buy a house.
- LTV is a kind of macro-prudential policy.

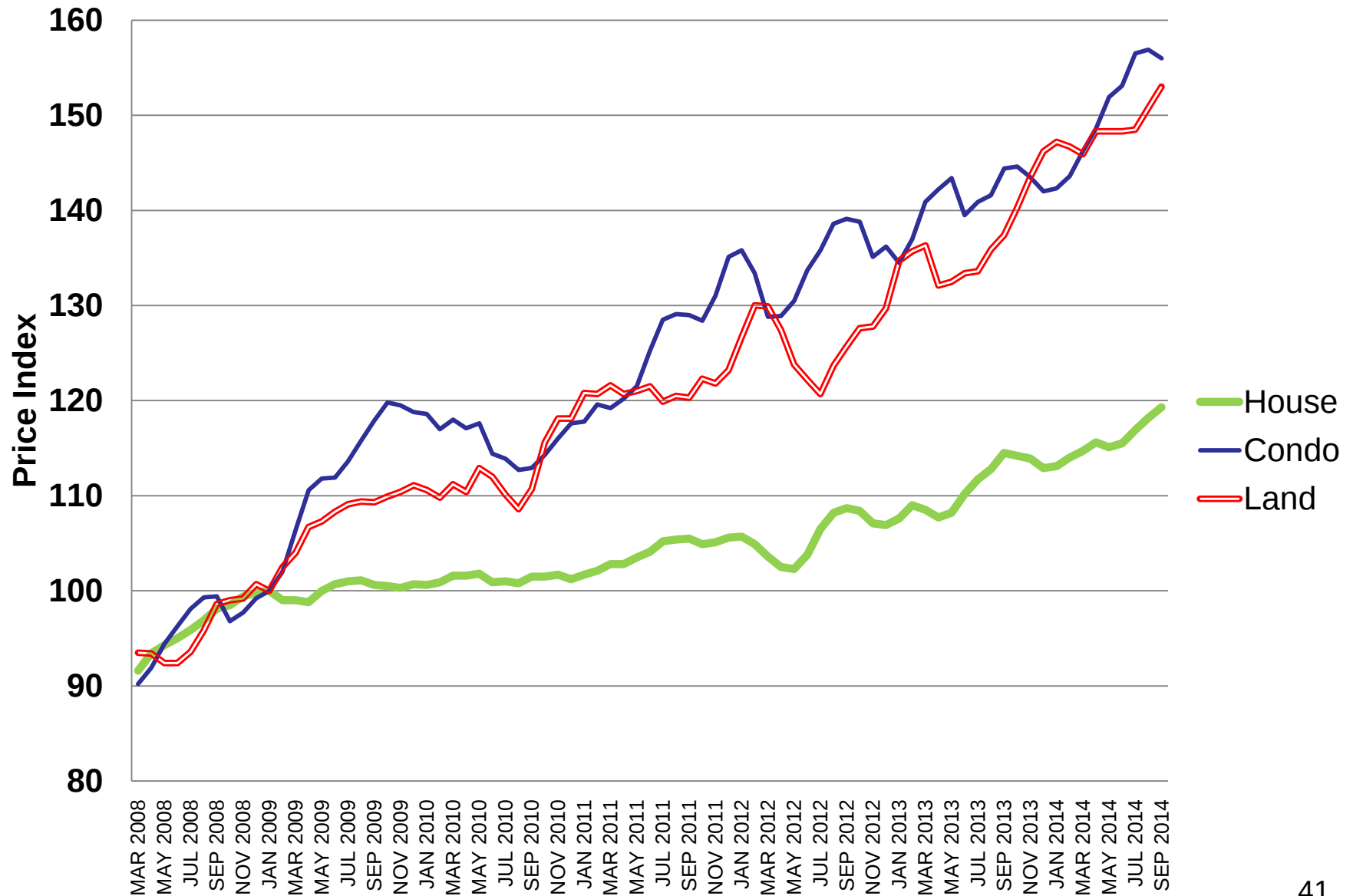
The central bank and the control of credit multiplier

- There is a significant degree of inertia in bank lending.
- When interest rate is high, commercial banks are willing to take more risk to obtain higher returns from their assets.
- If the Bank of Thailand raises the interest rate on its lending facilities, banks would be discouraged in lending, thereby causing a decline in the credit multiplier.

Slow supply adjustments

- Quantity demand adjusts faster than the quantity supply
- Long gestation period of property development
- Lack of price adjustments: Downward price rigidity prevents market clearance.
- Expectations change rapidly
- Difficulty for pricing mechanism to clear the market.

Thailand's house and land prices



Riding the greenback: the Fed and the ECB

- The first great divergence in monetary policy since the financial crisis of 2008 is looming.
- Next month America's Federal Reserve may raise interest rates, while the European Central Bank may ease policy further.

So watch out for excitement in foreign-exchange markets in the weeks ahead

- Currency traders are attracted to higher yields, but with rates near zero they have had little scope to speculate.
- The big question is how much is already in the price; the dollar has been on a long bull run, and further strength would be a deflationary influence, through lower import prices.

What might deter the Fed

- That might deter the Fed from pushing up rates too quickly, so the currency's rise may ultimately be self-correcting.
- Meanwhile, a still-higher dollar may be painful for countries, like China, that informally peg their currencies to the greenback.

Speculation about further devaluations of the yuan (after a 2% jolt in August) may intensify.



US consumer prices % change on a year earlier



Source: US Bureau of Labour Statistics

Stitches in time: inflation and the Fed

- Cheap fuel has kept American inflation around zero since January.
- Core inflation (excluding food and energy) has been higher, but remains restrained by the surging dollar, which makes imports cheaper.

Should the Fed wait?

- Some (including the IMF) say the Federal Reserve should wait until inflation picks up before raising interest rates, at rock bottom since late 2008.
- But another near-nil inflation reading is unlikely to prevent an
- Janet Yellen, the Fed's head, wants to lift rates before the economy overheats, to avoid a steeper climb later.

Expect a rate rise before Christmas.

- Industrial-production figures show output all but flat, after two months of declines.
- Manufacturers are struggling as the strong dollar makes exports more expensive.
- Yet exports are only one bit of demand; domestic spending is strong.

Concluding remarks

- The bubble in the stock market preceded the bubble in the real estates markets.
- It is desirable and possible to prick the bubble by using tight credit policy to curb excessive credit growth.
- Impose maximum Loan-To-Value ratio (LTV) (an example of macro prudential policy)
- If monetary policy can produce sustainable growth with price stability, there would be favorable consequences on other development issues such as poverty reduction, employment, income distribution, and urban migration.

Conclusion

- Monetary policy is effective in stabilizing the economy, but it should be employed in line with fiscal policy stance and take into account impact of exchange rate (when there is no FX intervention).
- Some novel goals of inclusive and quality growth require other policy mix to bring about the benefits of growth to the vulnerable.

Concluding remarks

- Monetary policy should not be employed for micro objectives that might lead to distortion of resource allocation.
- If growth with stability can be achieved, the Bank of Thailand can obtain a broader goal of poverty reduction.