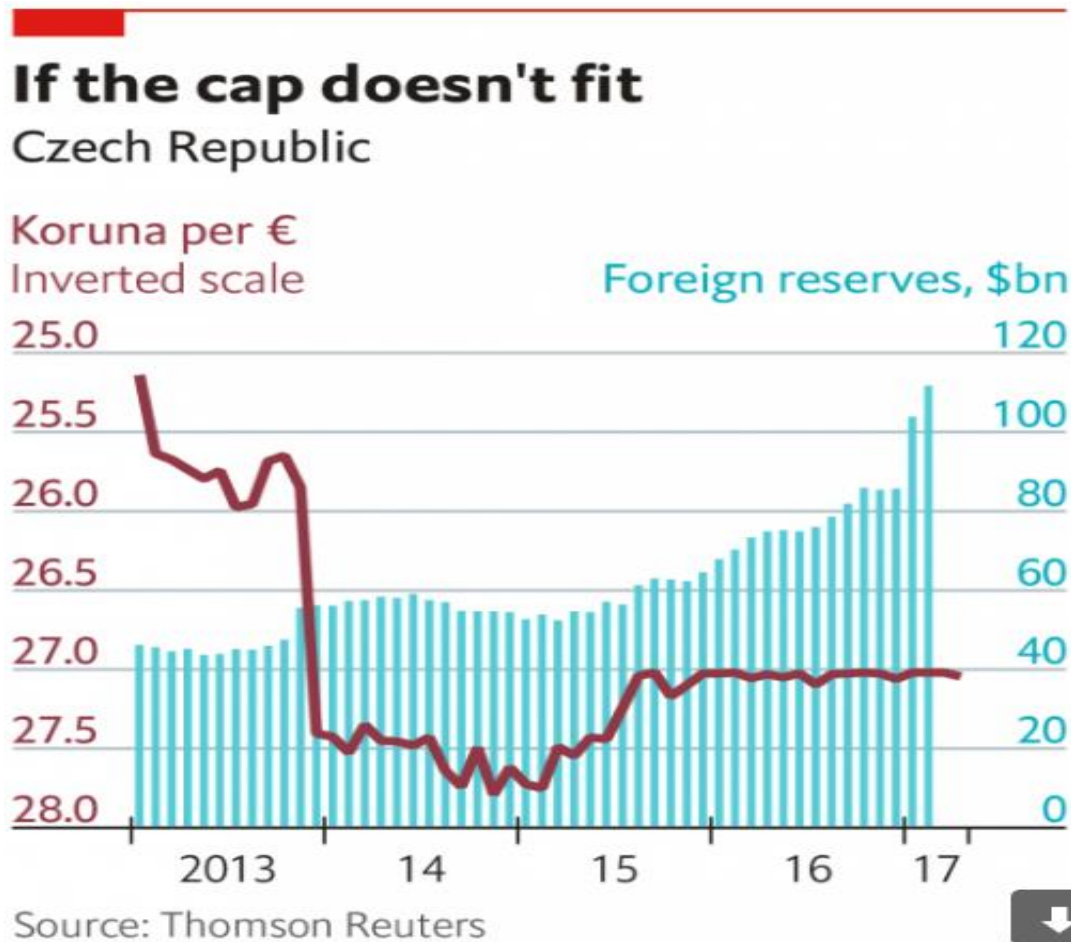


# Thailand's Exchange Rate Policy: lessons from the past

Bhanupong

Lecture 22

# Czech Republic's cap of 27 koruna (crowns) per euro



# Loosening the crown: Czech finance

- With its official commitment to keep the currency weak having lapsed recently, the central bank is free to loosen its cap of 27 koruna (crowns) per euro—perhaps today.
- The central bank opted for the weak-koruna policy in 2013 to kickstart a sputtering economy. Inflation then hovered around zero, and record-low interest rates were ineffective. The policy provided the sought-after boost but also drew controversy.
- Exporters praised it, while critics said it was too costly.
- The bank has dished out an estimated 2trn koruna (\$86bn) in interventions. How history views this splurge will depend on what happens next:
- The Swiss franc, for example, rose 30% immediately after being unpegged in 2015.
- The Czechs have pledged to spend more to stave off turmoil, and foreign-exchange reserves are up, providing ample ammunition. But the final bill is yet to be totted up. 3

# China's inflation

- In recent years, China exported deflation to the rest of the world.
- The price of goods leaving its factory gates fell for 54 straight months, a drag on companies everywhere, especially among its closest trading partners in Asia.
- But China's producer-price inflation turned positive in September 2016 and data showed that the increase accelerated in October.
- A property rebound in China has fueled big increases in commodity prices in recent weeks as investors bet the rally has further to run.

# Correlation

Producer prices, % change on a year earlier

- China
- India
- Japan
- South Korea
- Taiwan
- ASEAN-5 (excl. Indonesia)



Sources: Wind Info; Thomson Reuters; *The Economist*

# China's pricing power: Asian inflation

- Producer prices around Asia are perking up, too. That is good news for industrial firms, reversing the vicious cycle of weakening prices and collapsing investment that had weighed on them.
- But many investors worry the recovery will fall flat: the Chinese government is trying to cool the housing market and the jump in commodities looks overdone.
- Whatever happens, ***Asia's prices will be made in China.***
- Recall the impact of China's slowdown and the ASEAN synchronization

# Outline

- Two definitions of the real exchange rate
- The real exchange rate and the Dutch Disease
- Implications of a flexible exchange rate regime
- Fear of appreciation: The baht, the bank, and the blame
- What can the Russian Central Bank learn from the BoT?

## The fixed exchange rate system prior to the 1997 crisis

- Because volatility in exchange rates creates risks and uncertainties in trade and investment,
- A fixed exchange rate regime can create an illusion of a zero-exchange rate risk.
- Premature relaxation of capital controls encouraged over-borrowing in foreign currencies because of zero exchange rate risk.
- Currency and maturity mismatching of Thai commercial banks generated their over-exposure to external shocks.

# Nominal Exchange Rate (ER) Real Exchange Rate (RER)

$$ER = \frac{B}{\$}$$

$$RER = \frac{B / P^T}{\$ / P^U}$$

$$RER = e\left(\frac{P^U}{P^T}\right)$$

**The real exchange rate depends on the nominal rate and the price ratio between the US and Thailand price levels**

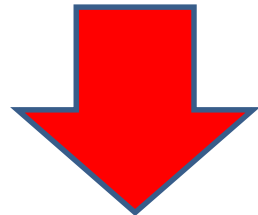
# Gain in competitiveness

Depreciation

If  $\Delta P_T < \Delta P_{US}$



RER



If  $\Delta P_T > \Delta P_{US}$

Appreciation

Loss of competitiveness

# A more accurate index of competitiveness

- Effective Exchange Rates: A weighted Average of bilateral exchange rates between the baht and other currencies
- Nominal effective vs. Real effective magnitudes

# Nominal and Real Effective Exchange rates: (EER vs REER)

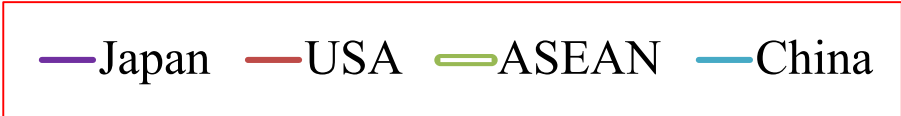
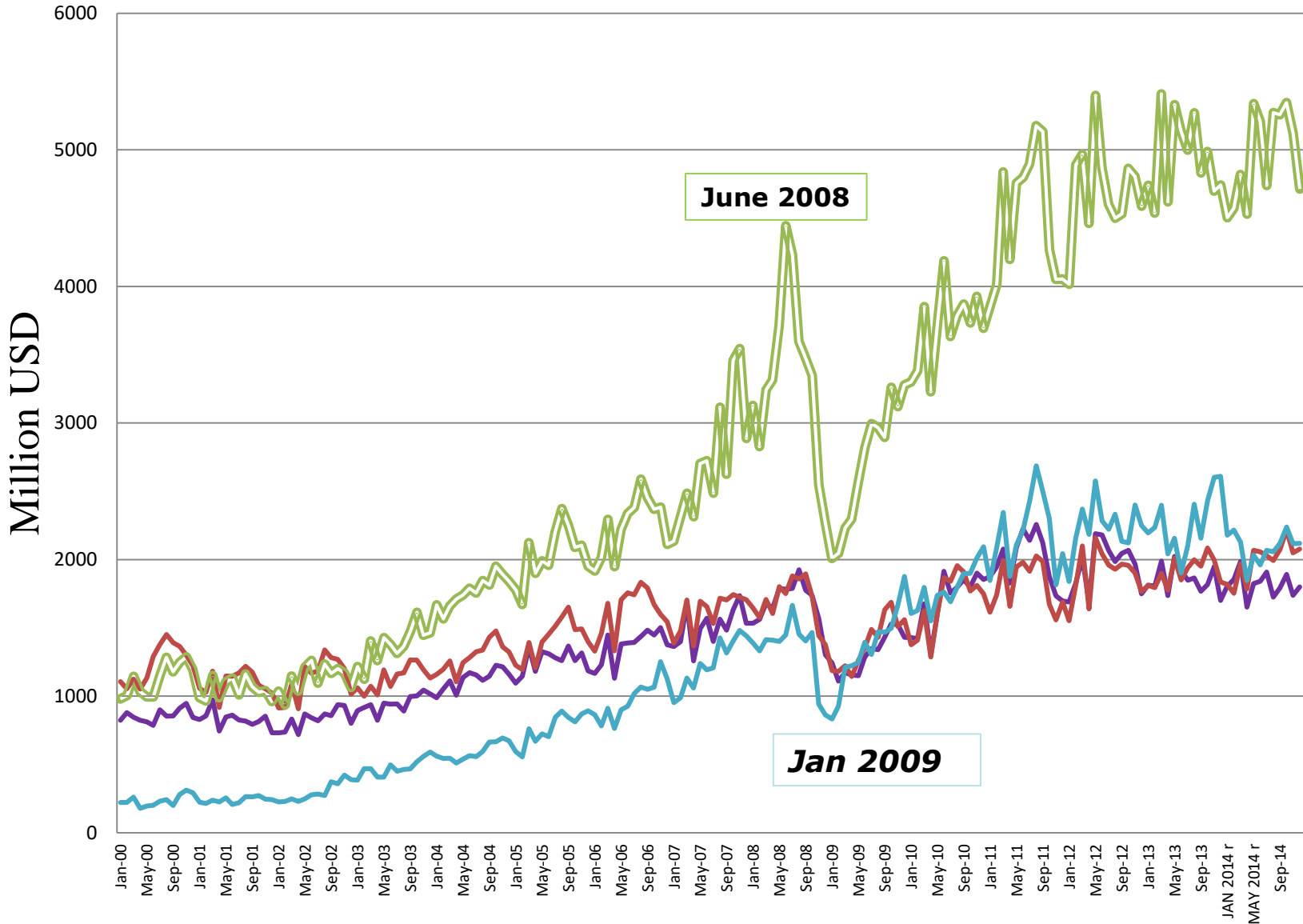
$$EER = \theta_1(B / \$) + \theta_2(B / Y) + \theta_3(B / Euro) + \theta_4(B / S) + ..$$

$$REER = \theta_1(B / \$)\left(\frac{P^U}{P^T}\right) + \theta_2(B / Y)\left(\frac{P^Y}{P^T}\right) + \theta_3(B / Euro)\left(\frac{P^{EU}}{P^T}\right)$$

$$+ \theta_4(B / S)\left(\frac{P^S}{P^T}\right) + ...$$

**What are the weights ( $\theta_i$ ) in the formula?  
Trade share in our major trading partners**

# Thailand's major export destinations



# Capital Surge: inflows prior to 1997 crisis

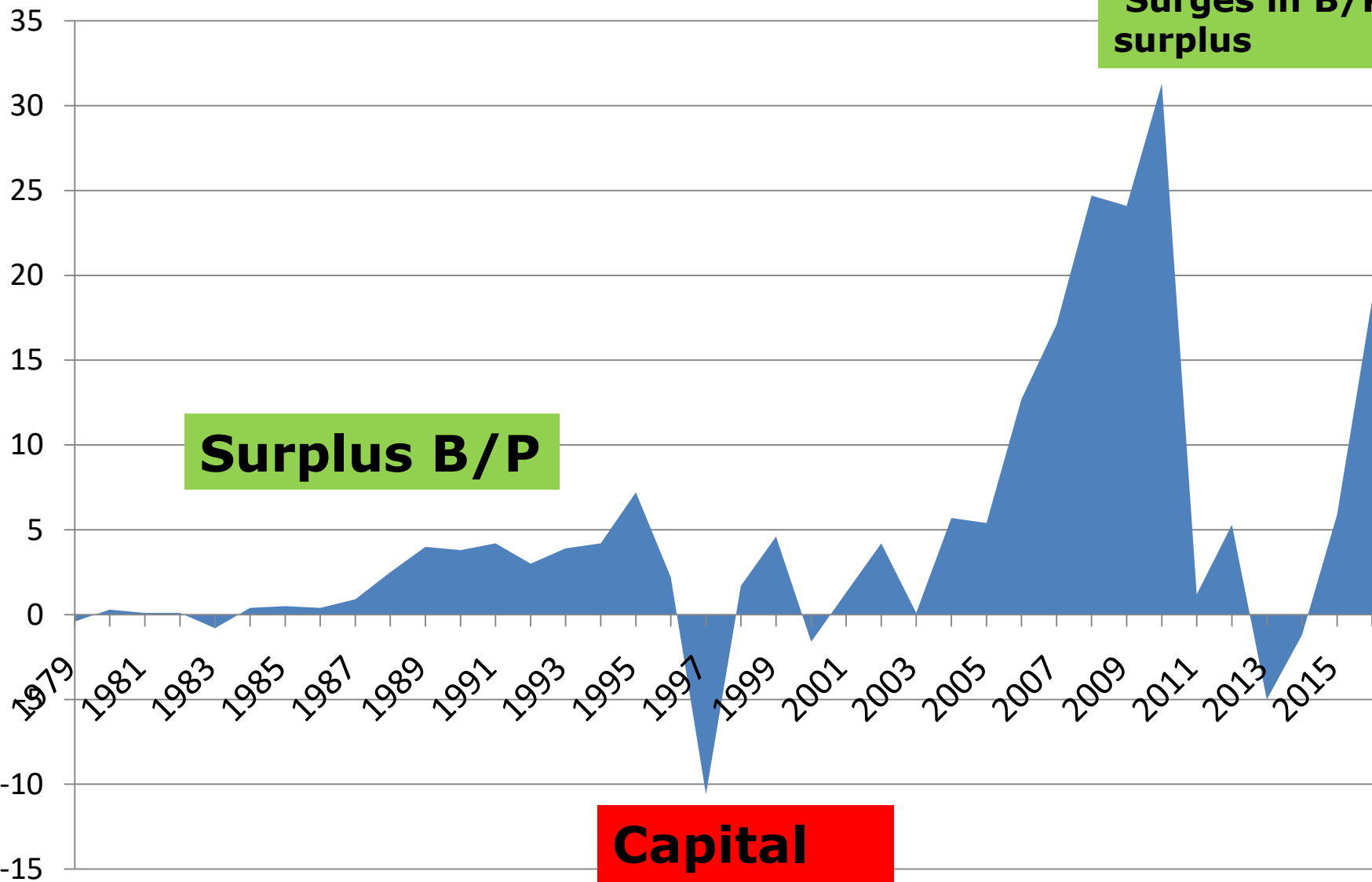
- A surge in capital inflows into Thailand began in the late 1980s and continued unabated until 1996.
- The flows brought high economic growth and a surplus in the balance of payments and current account deficit.

# Balance of payments (Billions of USD)

**2010 and 2016:  
Surges in B/P  
surplus**

**Surplus B/P**

**Capital  
flight**



# Causes of rapid capital inflows

- A declining in world interest rates widened the interest rate differentials, inducing excessive foreign borrowings.
- A policy dilemma for the Bank of Thailand: should the bank reduce the interest rate to keep the interest gap remain unchanged ?
- Domestic financial liberalization also increased the *sensitivity* of capital flows to interest rate differential.
- The measures undertaken to establish Thailand as a regional financial sector induced short-term capital flows though offshore borrowings by the nonbank private sector.

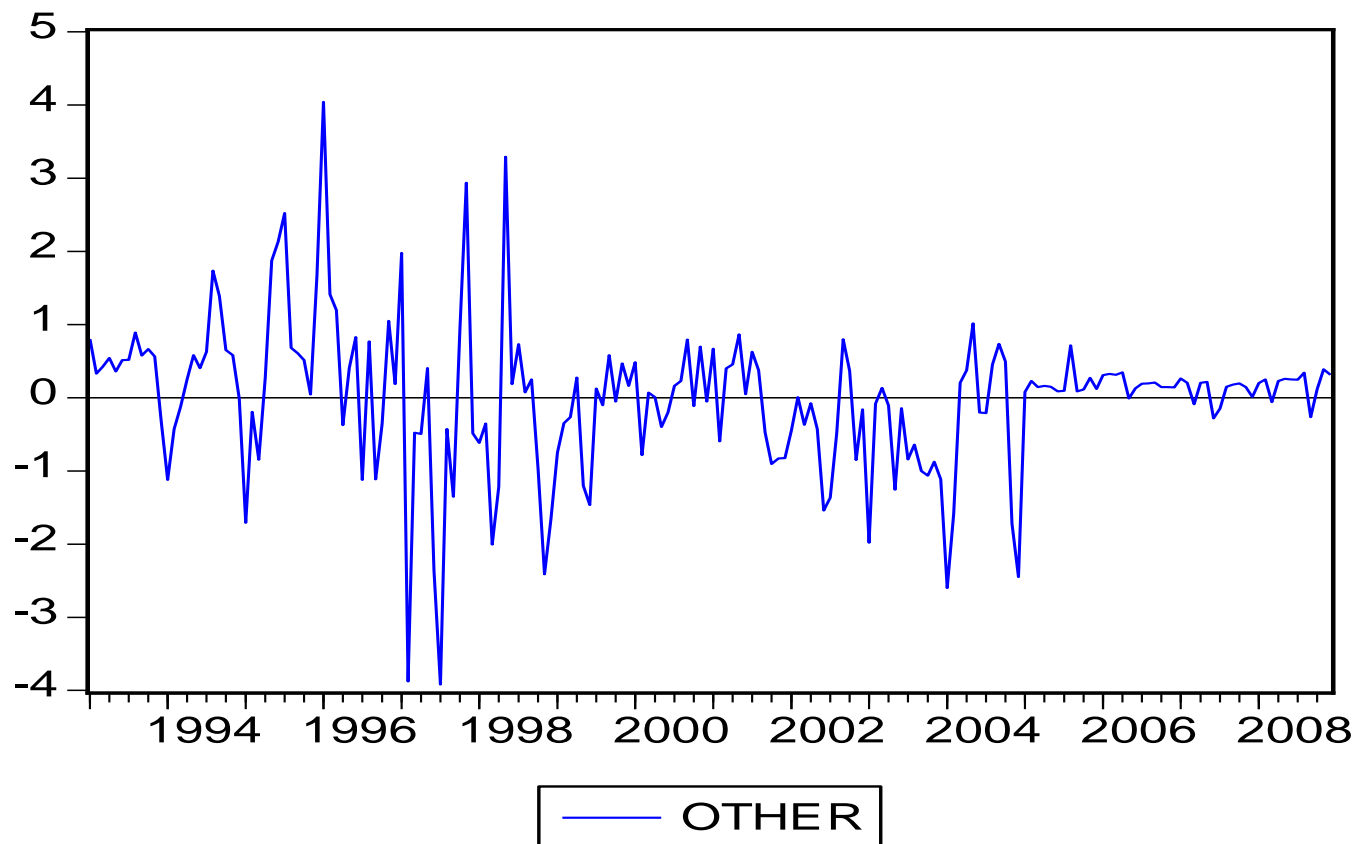
# Determinants of capital flows: The fundamental equation

$$K_f = \alpha + \beta(r - r_f) + \delta (\Delta Y / Y) - \phi(Risk) - \eta(\Delta e / e)^E + \varepsilon$$

**The important role of exchange rate expectations:  
Capital outflows can be stopped when  
there is no anticipation of future devaluation**

**Maintaining high interest rates does not guarantee  
the absence of capital flights.**

Speculative capital flows (OTHER) died off after a realistic exchange rate was established in the aftermath of the AFC



# Adverse Consequences

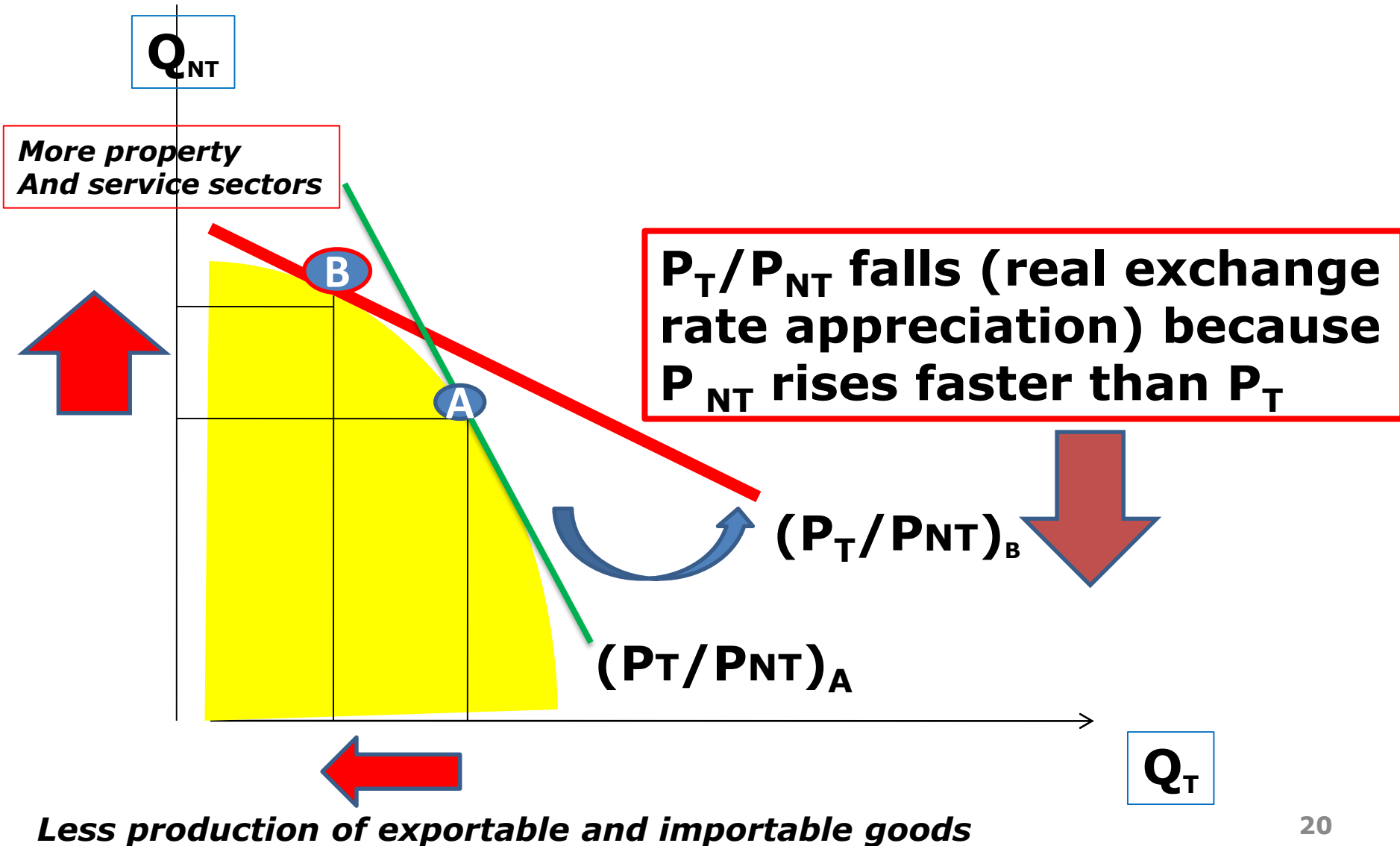
- The surge in capital inflows led to the so-called “Dutch disease” which results in the appreciation of the real exchange rate and a consequent reduction in external competitiveness.
- In the Dutch disease, the current account deficit worsens since the price of non-traded goods rises faster than that of traded goods:
- The second definition of the real exchange rate ( $e^*$ ):

$$e^* = (P_t/P_{nt})$$

# Dutch disease and the erosion of competitiveness:

Real exchange rate ( $P_T/P_{NT}$ ) appreciation

*Resources were transferred to the non-traded sector*



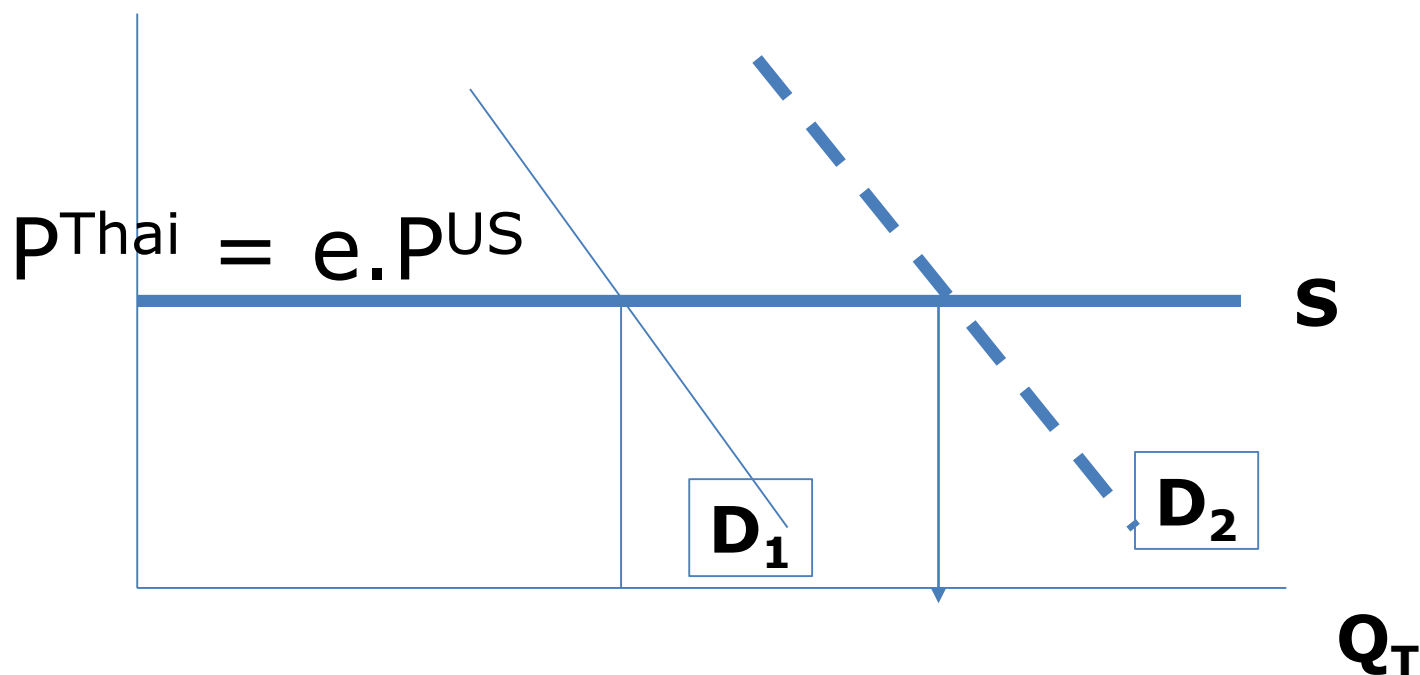
# One Bangkok

**120 billion baht project**

**He does not engage in small projects, only the big ones**

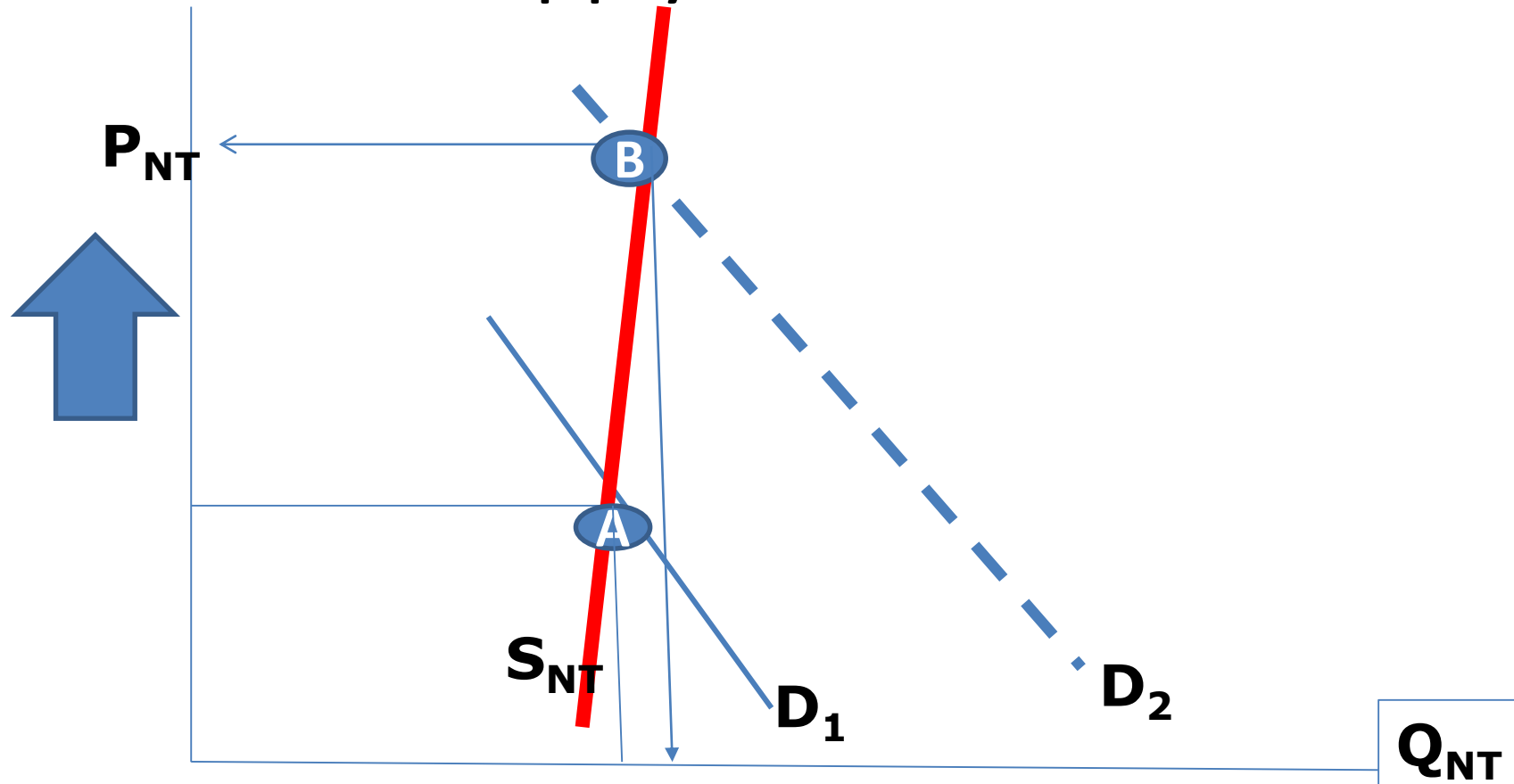


In the traded sector, where the Law of One Price rules: supply is infinitely elastic, because its price is determined by the world markets (USA and China)



**D shifts as a result of capital inflows**  
 **$P_T$  remains unchanged**

In the non-traded sector, where its supply is less elastic



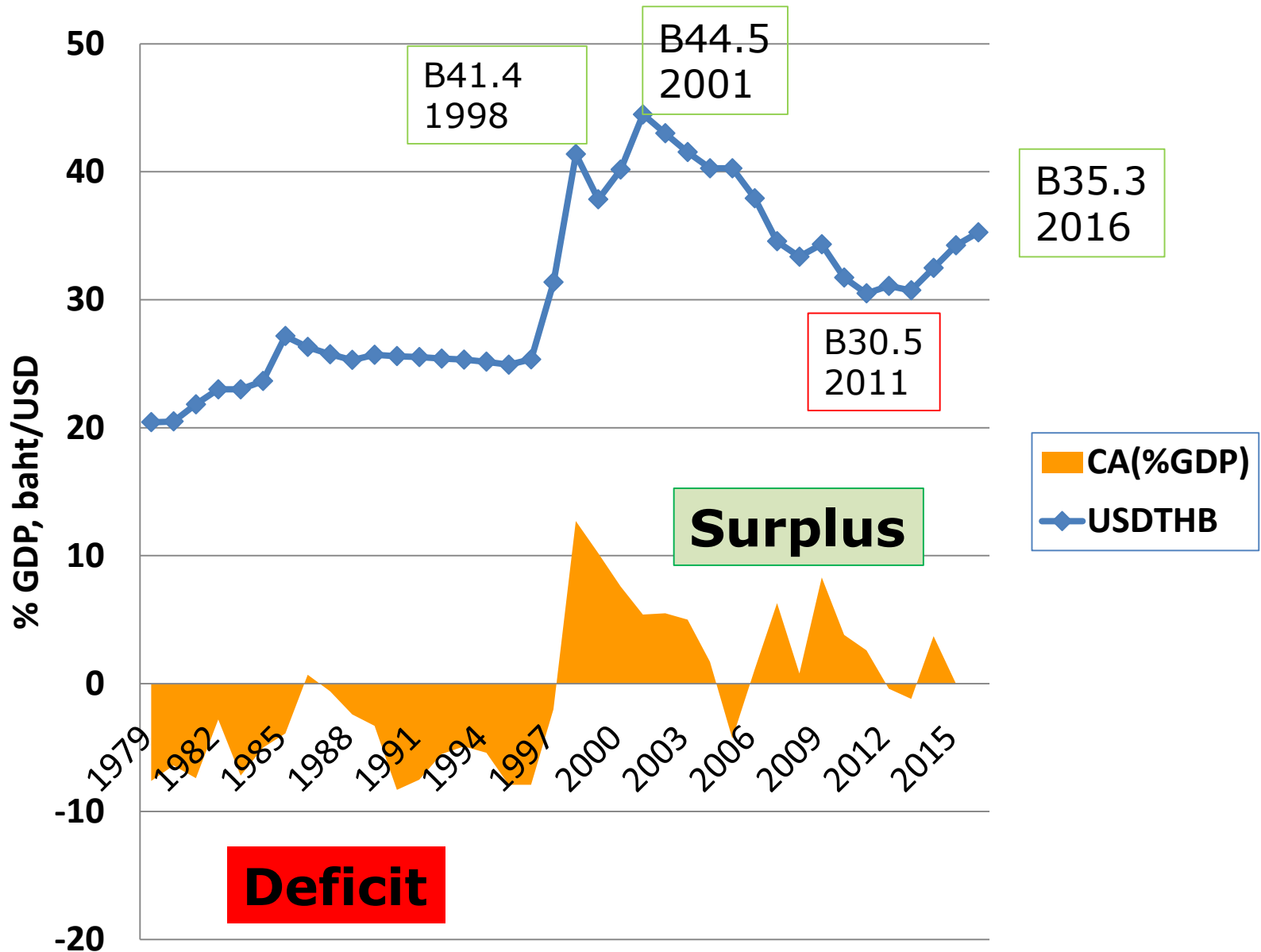
$D_1$  shifts to  $D_2$  as a result of capital inflows  
 $P_{NT}$  increases: Hence,  $(P_T/P_{NT})$  rises  
Real exchange rate ( $e^*$ ) appreciates: loss of  
International competitiveness

# Economic crises in 1997/98

## The reckoning day: July 2, 1997

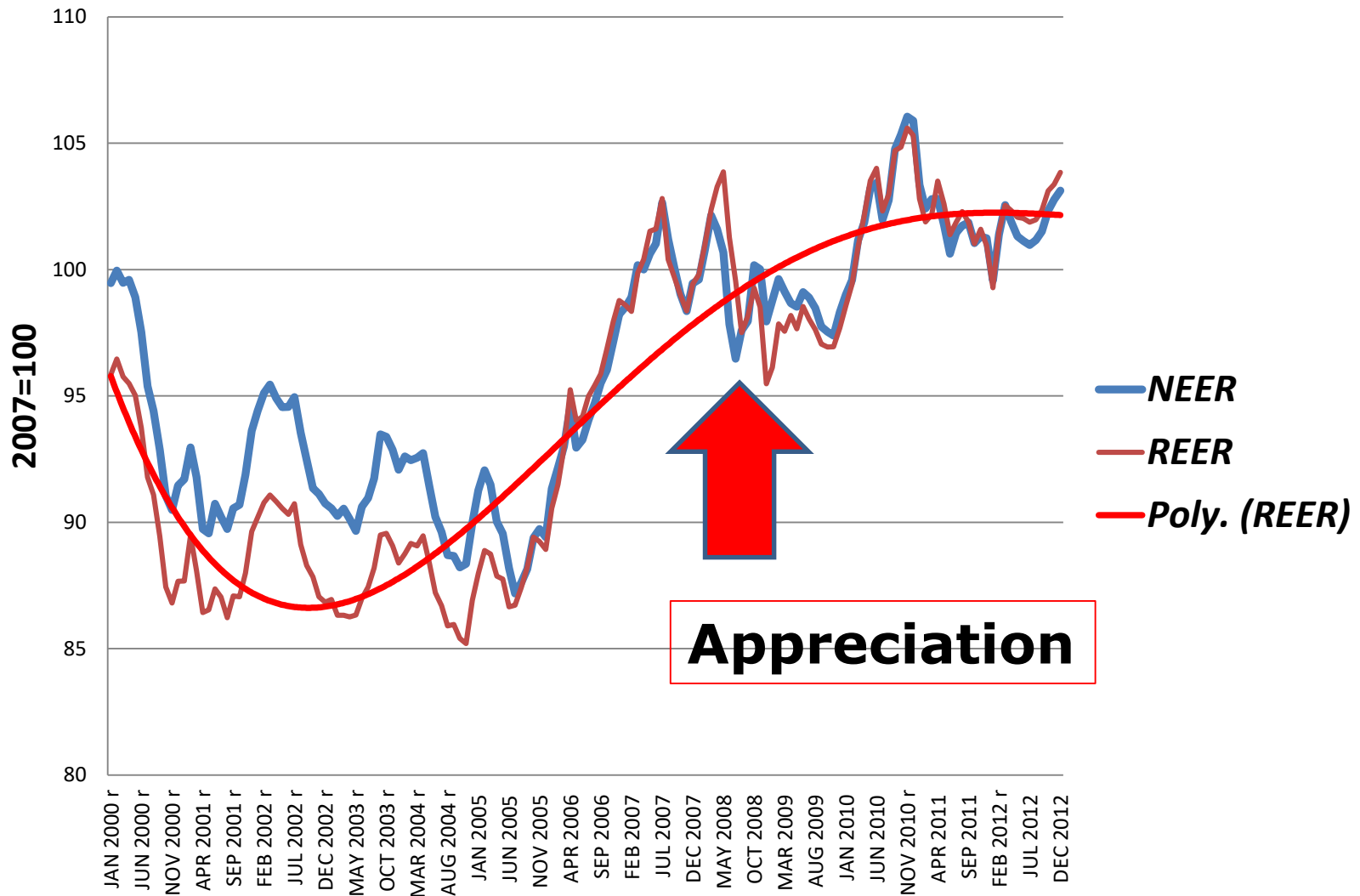
- With the baht succumbing to speculative attacks, the BoT decided to float it on July 2, 1997.
- Without a nominal anchor and given the lack of **political credibility**, the value of the baht fell by 56% through to January 1998.
- The deficit became surplus by income and substitution effects: expenditure switching and income reduction

# Baht/dollar rate and the Current Account

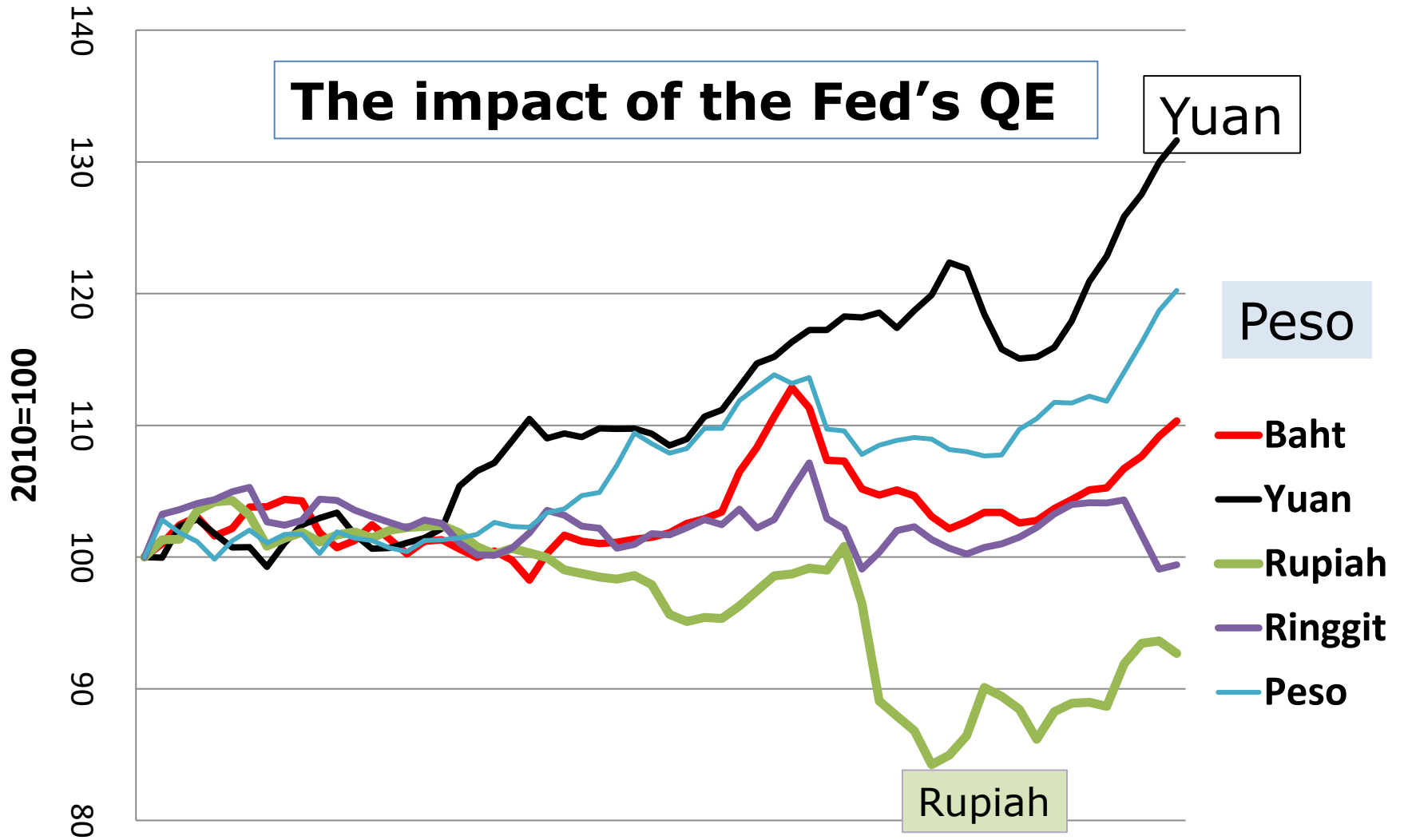


# Effective Exchange rates: 2000-2012

## Appreciation: Upward direction of the Index

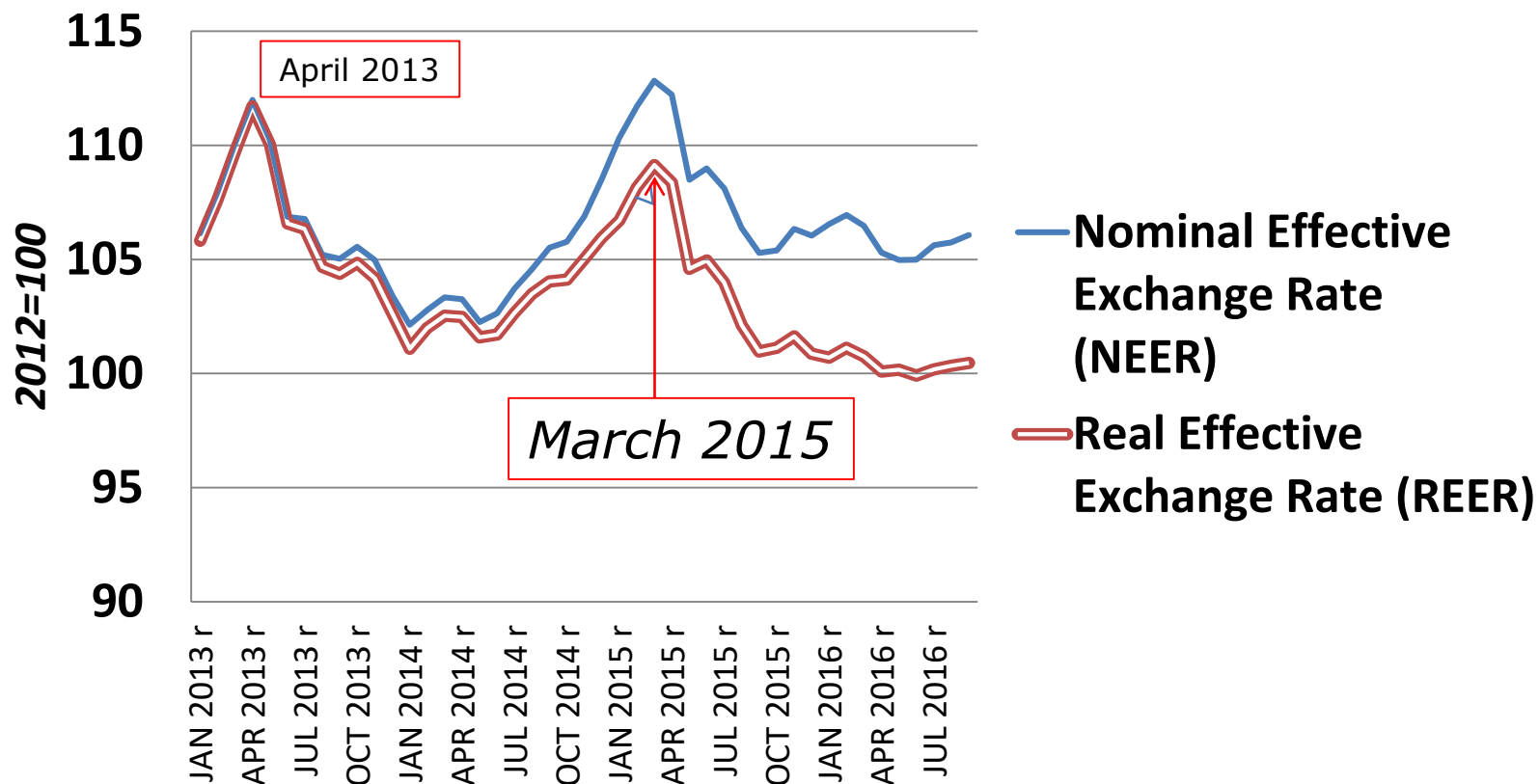


# Index of Real Board Effective Exchange Rates 2010-2015



# Real and Nominal Effective Exchange Rate: 2013-2016

## *Depreciating since April 2015*



## The monetary approach to the balance of payments

- Domestic credit (**DC**) consists of the monetary authority's holdings of claims on the public sector (government debt) and loans to the private sector (banks).
- $\Delta NFA = \Delta H - \Delta \text{DC}$
- $\Delta NFA$  is the change in net foreign assets, which is the balance of payments

# The monetary approach to the balance of payments

- H is high-powered money (commercial bank reserves and currency)
- To reduce the balance of payments deficit, domestic credit (DC) must be curtailed.
- Fiscal austerity must be initiated and maintained.

# The IMF's policy prescriptions to countries applied for conditional loans

- IMF prescribed the maximum level of **domestic credit expansion** as a condition, in addition to **currency devaluation and fiscal austerity**, for troubled countries to be eligible for obtaining financial assistance from the IMF.
- A perfect recipe for economic contraction
- Frequent turnover of minister of finance and governor of the BoT.

# Policy credibility

- **Policy credibility** is essential for any country that adopts a floating exchange rate regime.
- The lack of institutional independence was evident in the high turnover of the Governors of the BoT and the Ministers of Finance during the period of economic turmoil.

# Lessons learned

- Thailand faces the reality that the era of cheap foreign capital, zero foreign exchange risks, reckless investment, and spectacular growth is gone.
- A new era of economic rationalism would begin with investment efficiency and a sustainable growth path--albeit much less impressive.
- Do we really learn anything from the 1998 crisis?

# Central Bank Independence

- To make policy credible, the central bank must earn creditability.
- Institution independence and policy instrument independence are required to create effectiveness of monetary policy.
- Correlation exists between central bank independence and price stability
- The Nukul Commission Report viewed that political intervention at the BoT had weakened the ability of the BOT's crisis management.
- ***Should the BoT has absolute independence from the control of the government?***

# Lessons from the currency crisis

- Capital inflows have positive and negative impacts.
- Thailand should have allowed the baht to appreciate during the boom years and satisfied with a lower growth rate in the early 1990s.
- Even if appreciating currency discourages exports, it is better to live with the resulted slow output growth rate and low foreign debt.

# Lessons from the currency crisis

- Since capital flows are many times larger than international trade flows, when a country relies too heavily on short-term foreign debt to finance a current account deficit, it is impossible for the central bank to defend a fixed exchange rate for very long—let alone to inflict wounds on currency speculators.
- Thailand also learned that accountability and transparency should be well established so that the central bank is not tempted to engage in behavior that is akin to gambling in order to get out of a crisis.
- But the Russian Central Bank has yet to learn from the BOT.

# Flexible exchange rates

- Some instability in foreign exchange rates is a natural consequence of the adoption of a flexible exchange rate regime.
- When Thailand floated the baht from its previous untenable fixed rate, the baht-dollar exchange rate experienced overshooting.
- Various factors contributed to this phenomenon, including speculative bubbles, price stickiness, the rapid strengthening of the dollar against the yen, political instability, and the lack of policy credibility.

# The Thai Baht and the Canadian Dollar

*Is this a coincidence?  
Spurious relationship?*



SOURCE: TRADINGECONOMICS.COM

Source: Trading Economics.com

## What is the appropriate level of the exchange rate?

- It is exceedingly difficult to determine appropriate exchange rates using PPP or the current account balance.
- The cost of intervention in foreign exchange markets could be too high to warrant the action.
- Intervention should not be employed to change the direction of exchange rate movements.
- There is some room for the creation of an orderly and gradual movement of the exchange rate to reduce the amplitude of the swings.
- But the Bank of Thailand cannot lean against the wind of volatile exchange rates of the yen and yuan against the US dollar.

# Benefits of a flexible exchange rate

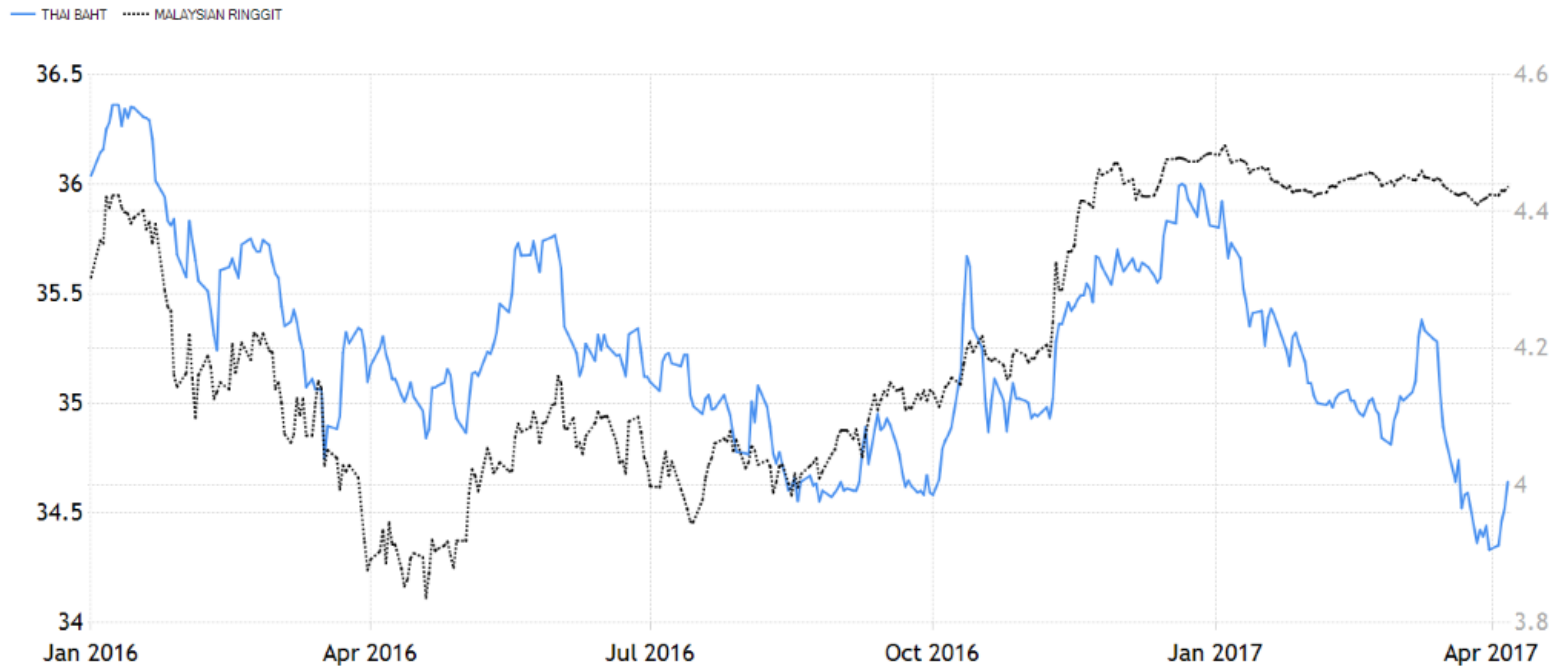
- Flexible exchange rates can impose discipline on the government.
- Exchange rate movements trace the anticipated successes or failures of the government's economic management.
- Capital flight can be eliminated only with the establishment of sound macroeconomic fundamentals.
- The case of the Philippine Peso after the President Duterte took office in June 2016

# The Philippine Peso: The impact of political risks and policy uncertainties

PHILIPPINE PESO



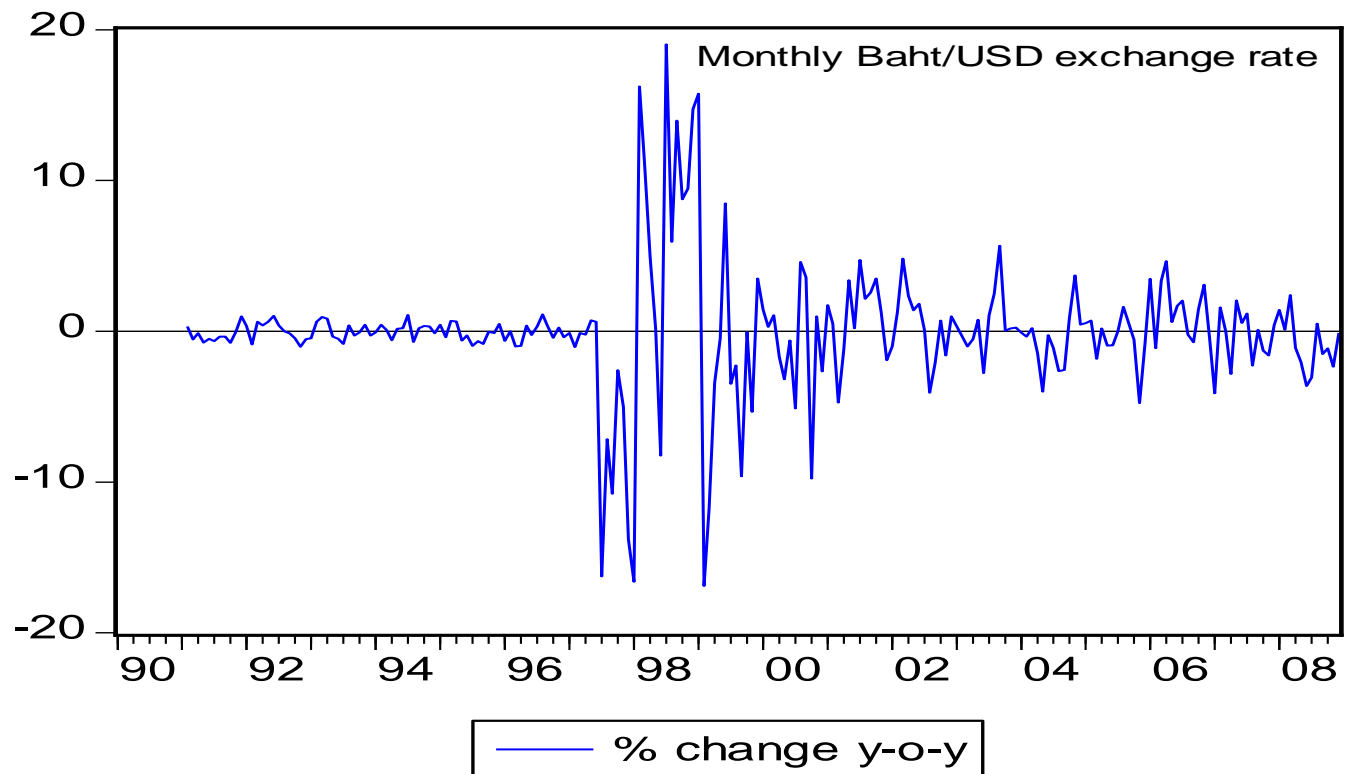
# The *Baht* vs the Ringgit



# More benefits of a flexible exchange rate regime

- When imports are highly responsive to changes in absorption and when capital flows do not respond significantly to changes in international rate differentials, both fiscal and monetary policy can play an important stabilizing role.
- The flexible exchange rate is expected to insulate the economy from shocks originating in the goods markets.
- But it is asking too much to expect the flexible exchange rate to cushion instability originating from money markets hit by crisis of confidence in the financial system.

# More room to maneuver: flexible exchange rate



# Contractionary effect of a large depreciation

- Output contraction can follow a massive devaluation, particularly if the banking system has relied heavily on foreign borrowing to excessively finance domestic investment.
- Historically, the Thai Baht reached an all time high of 55.50 in January of 1998 and a record low of 20.36 in July of 1981.
- The existence of a large volume of domestic debt would prolong the recovery, as the real value of private debt would be rising after asset price deflation.
- The 1998 Economic Crisis: Exchange rate and banking crises

# Should the baht be kept undervalued?

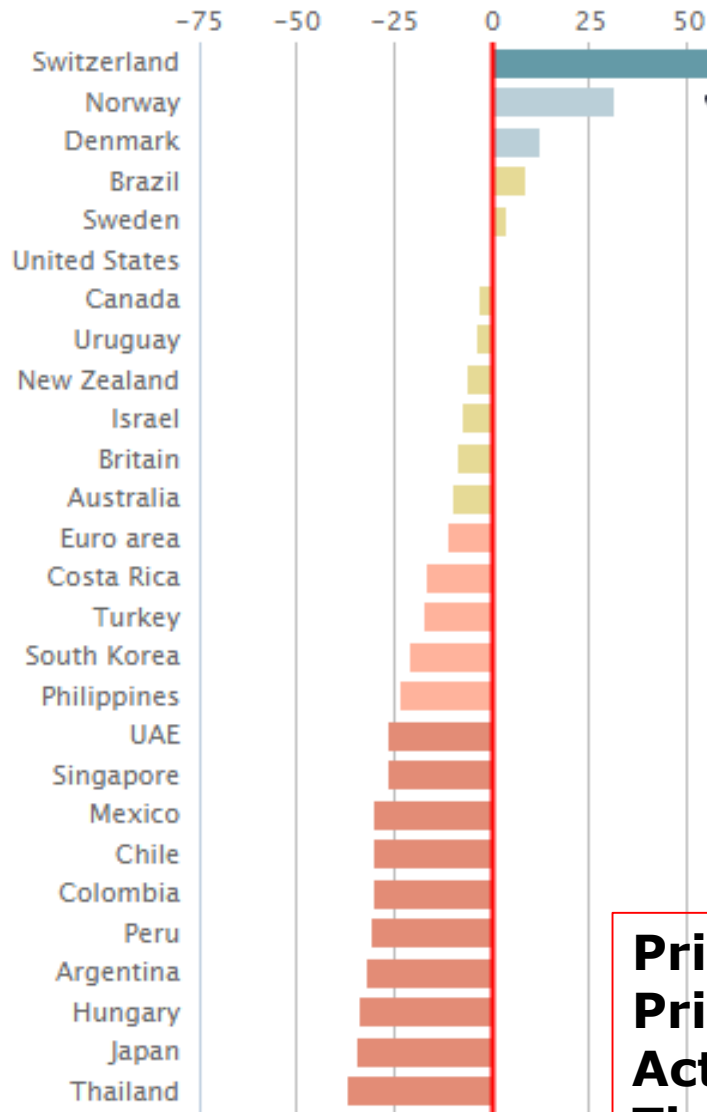
( keep the baht so weak that exporters can compete)

- It is a myth to assume a close link between currency depreciation and international competitiveness.
- Variations in Thailand's export growth can be explained very well by the fluctuation of world income.
- The strength of the US and Japanese economies is closely related with Thailand's export performance.
- Can we evaluate currency overvaluation from the law of one price?
- The Big Mac Index: Burgernomics

# Burgernomics: How many percent is the baht undervalued?

- THE Big Mac index was invented by *The Economist* in 1986 as a lighthearted guide to whether currencies are at their “correct” level.
- It is based on the theory of purchasing-power parity (PPP), the notion that in the long run exchange rates should move towards the rate that would equalize the prices of an identical basket of goods and services (in this case, a burger) in any two countries.
- Burgernomics was never intended as a precise gauge of currency misalignment, merely a tool to make exchange-rate theory more digestible.

January 2015



$$P^T = e^* \cdot P^{USA}$$

$$e^* = (P^T / P^{USA})$$

$$e^* = (B99 / \$4.79) = 20.7$$

$$e = 32.6 \text{ (actual rate)}$$

the actual baht is

overvalued by 36.6%

$$(e^* - e) / e = -36.6\%$$

Price in USA: \$4.79

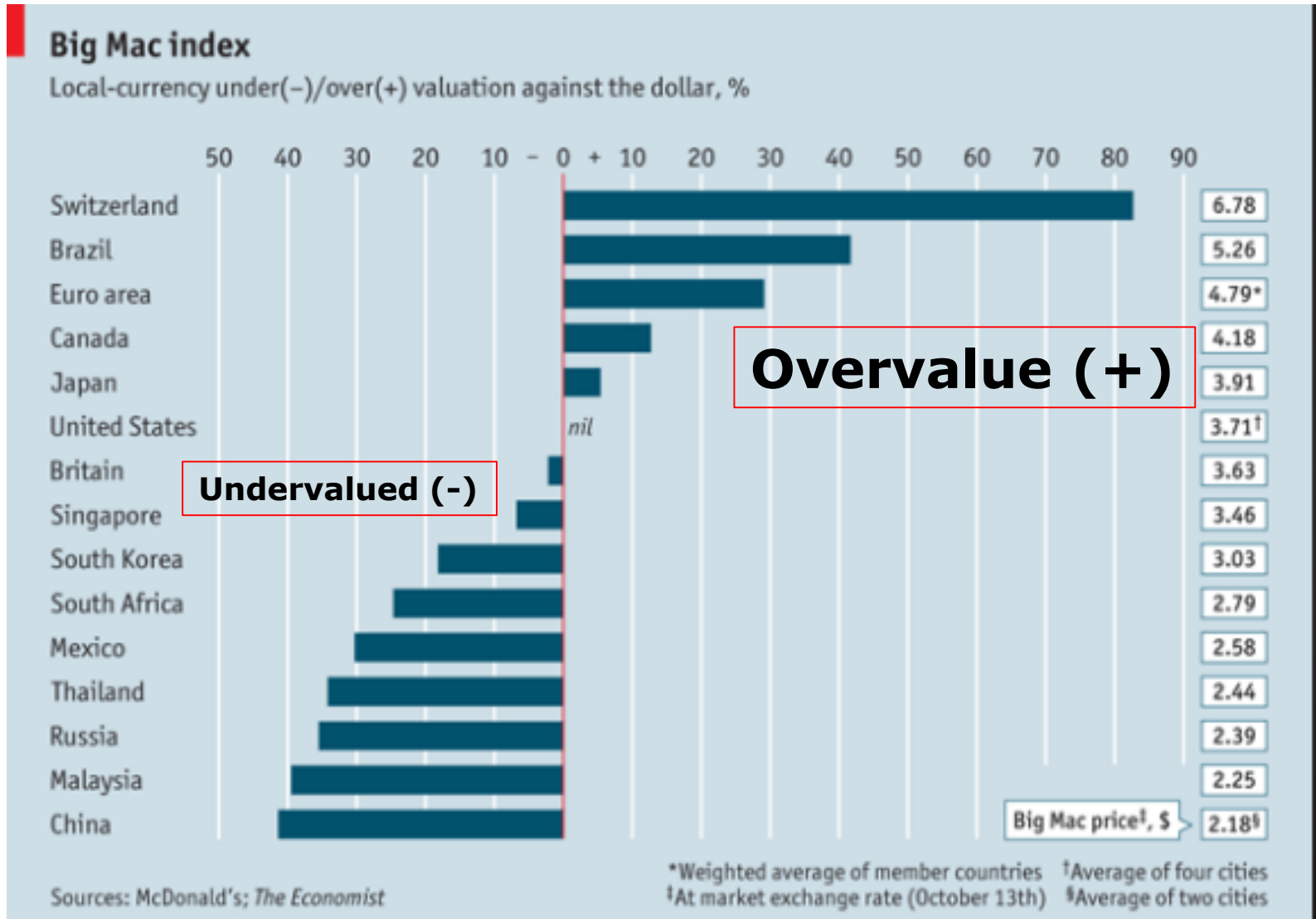
Price in Thailand: 99 baht

Actual exchange rate: 32.6 baht/\$

The baht is undervalued by 36.6%

Implied exchange rate: **20.7**

Big Mac index in 2015: THB is undervalued more than 30 %  
 (The baht should have been appreciated by 30%)

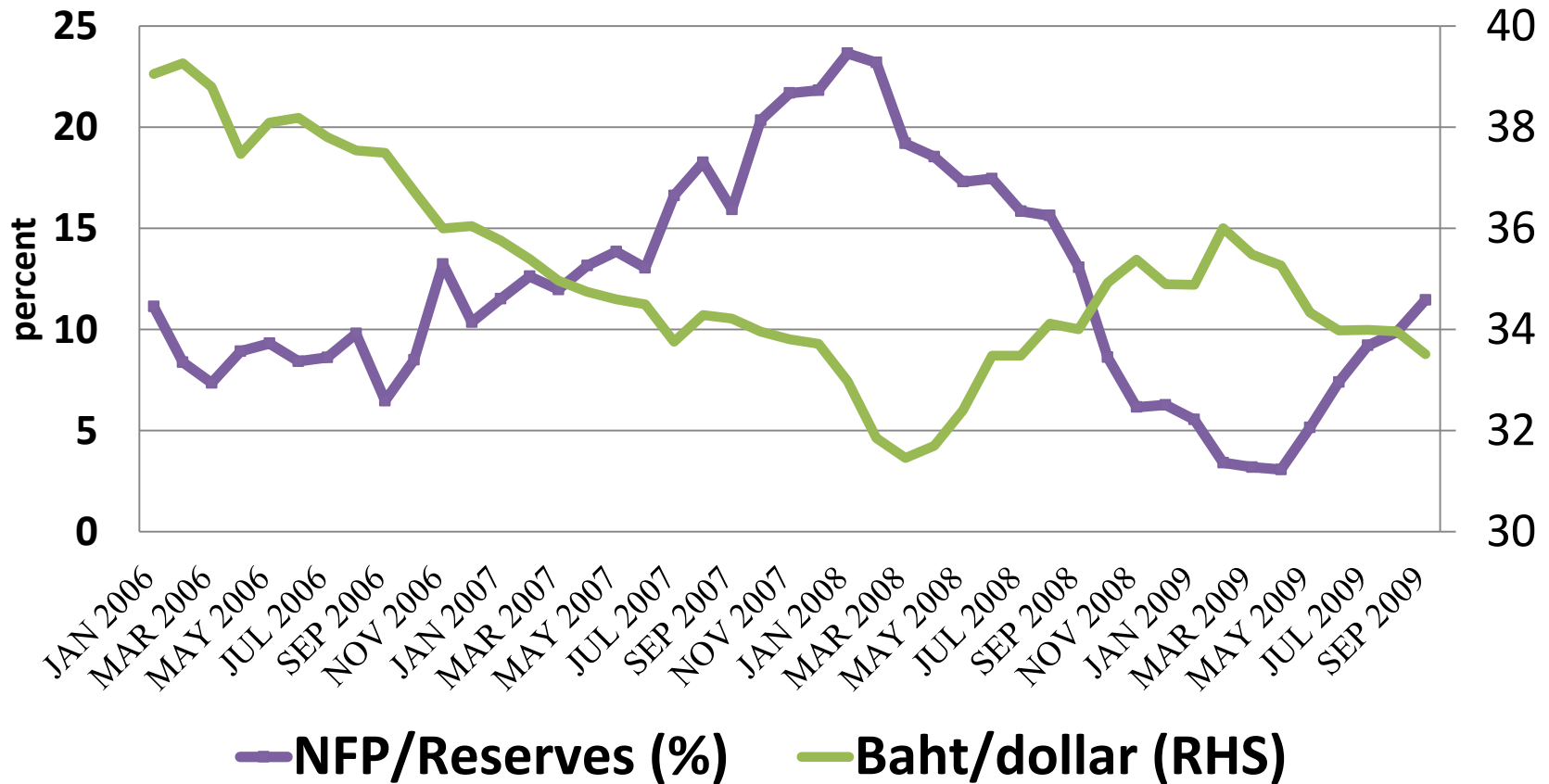


# Determinants of the baht-dollar exchange rate

- When the dollar appreciates (**depreciates**) against major currencies, baht depreciation (**appreciation**) is a natural consequence.
- Inflation differentials, interest rates, and output growth matter (Remember the fundamental equation of capital inflows?).
- Should the Bank of Thailand raise (**reduce**) the interest rate to prevent baht depreciation (**appreciation**)?

# Net Forward Position: NFP

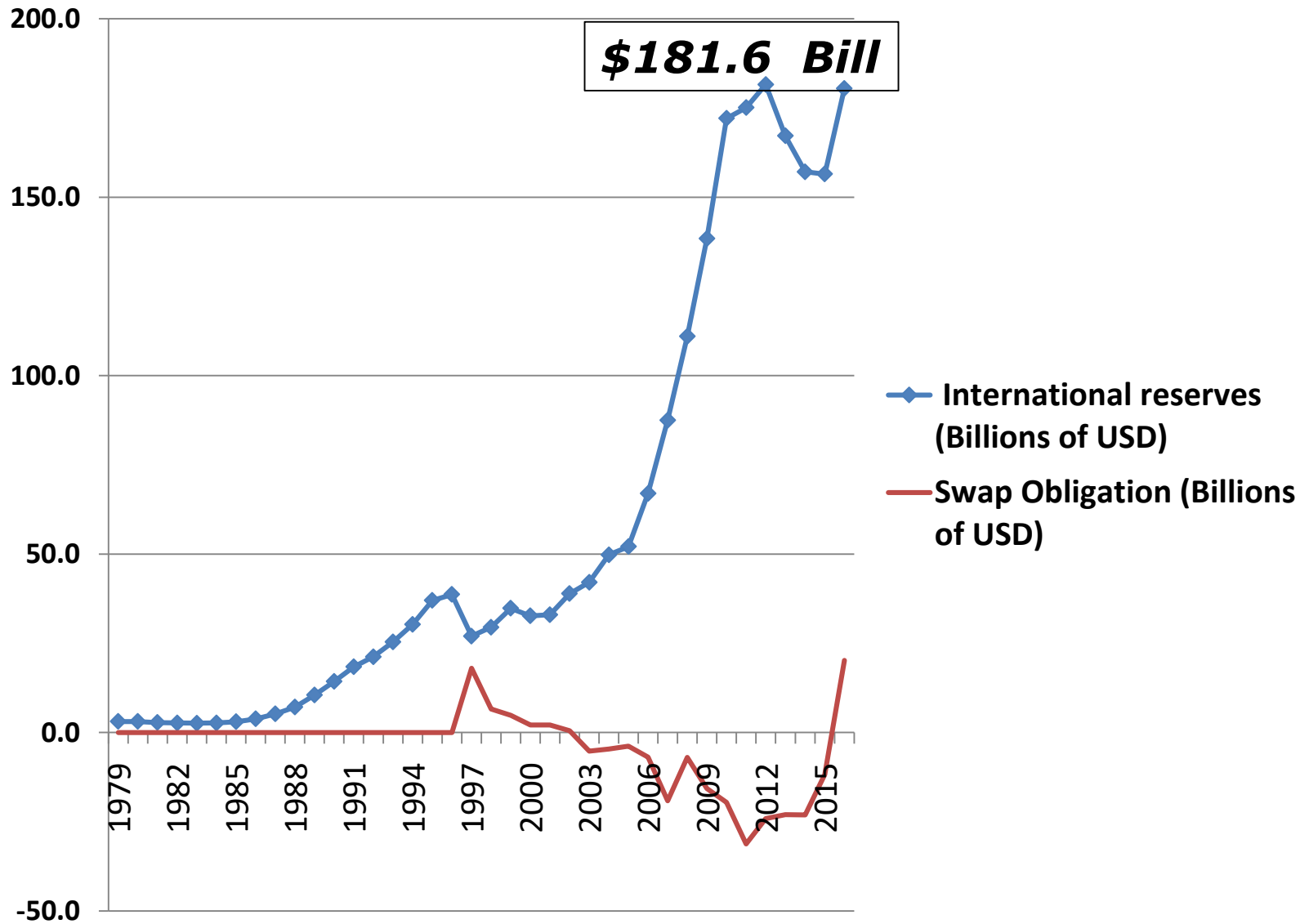
## Buying the dollar forward (selling the baht forward) to prevent baht appreciation



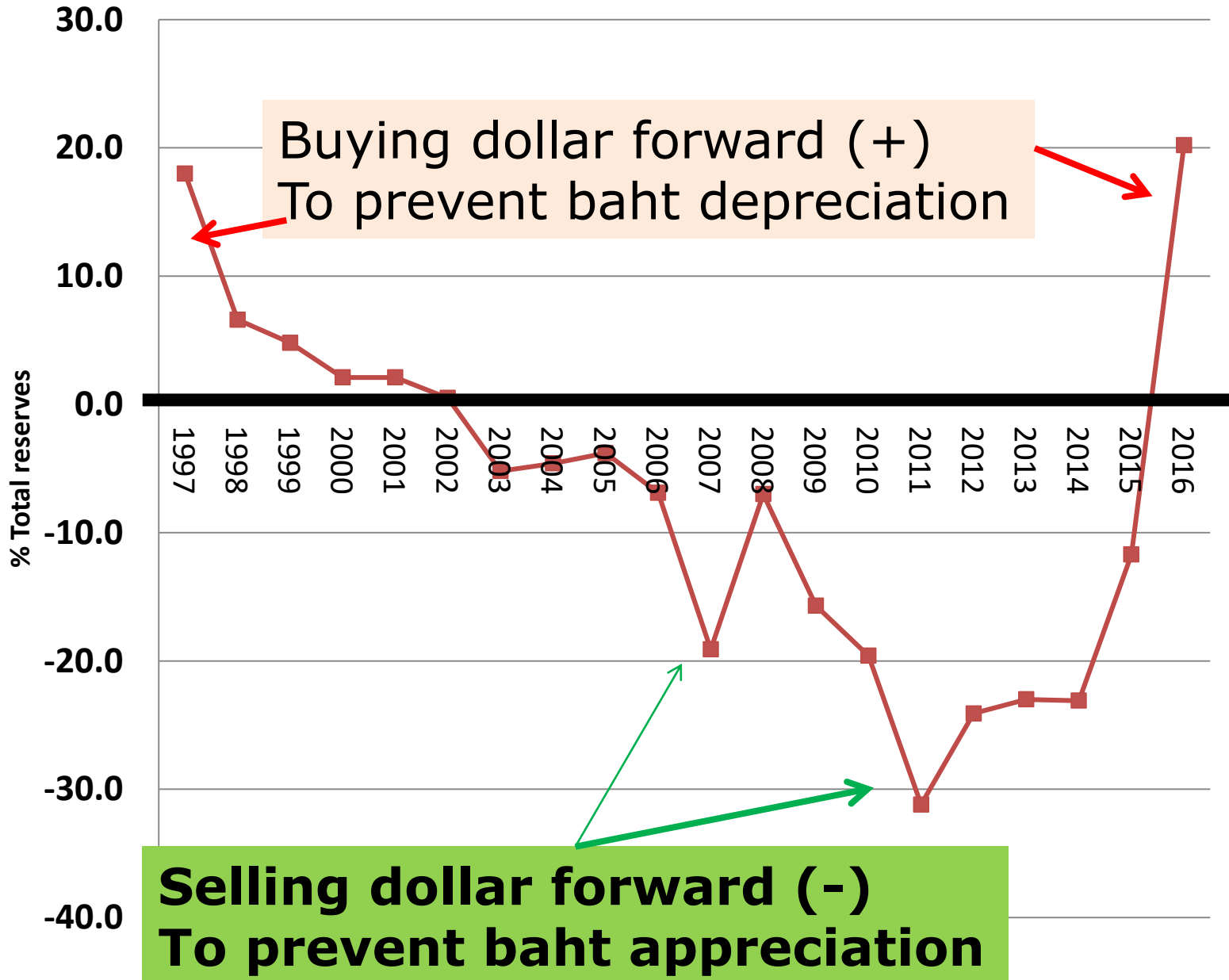
## International Reserves: A record high in 2012

- Thailand's level of international reserve reached the all-time high at 181.6 billion USD in 2012, thanks to the capital inflows as repercussions from the QE.
- The rising international reserves implies that the BOT continued buying the USD to prevent the baht from appreciation.

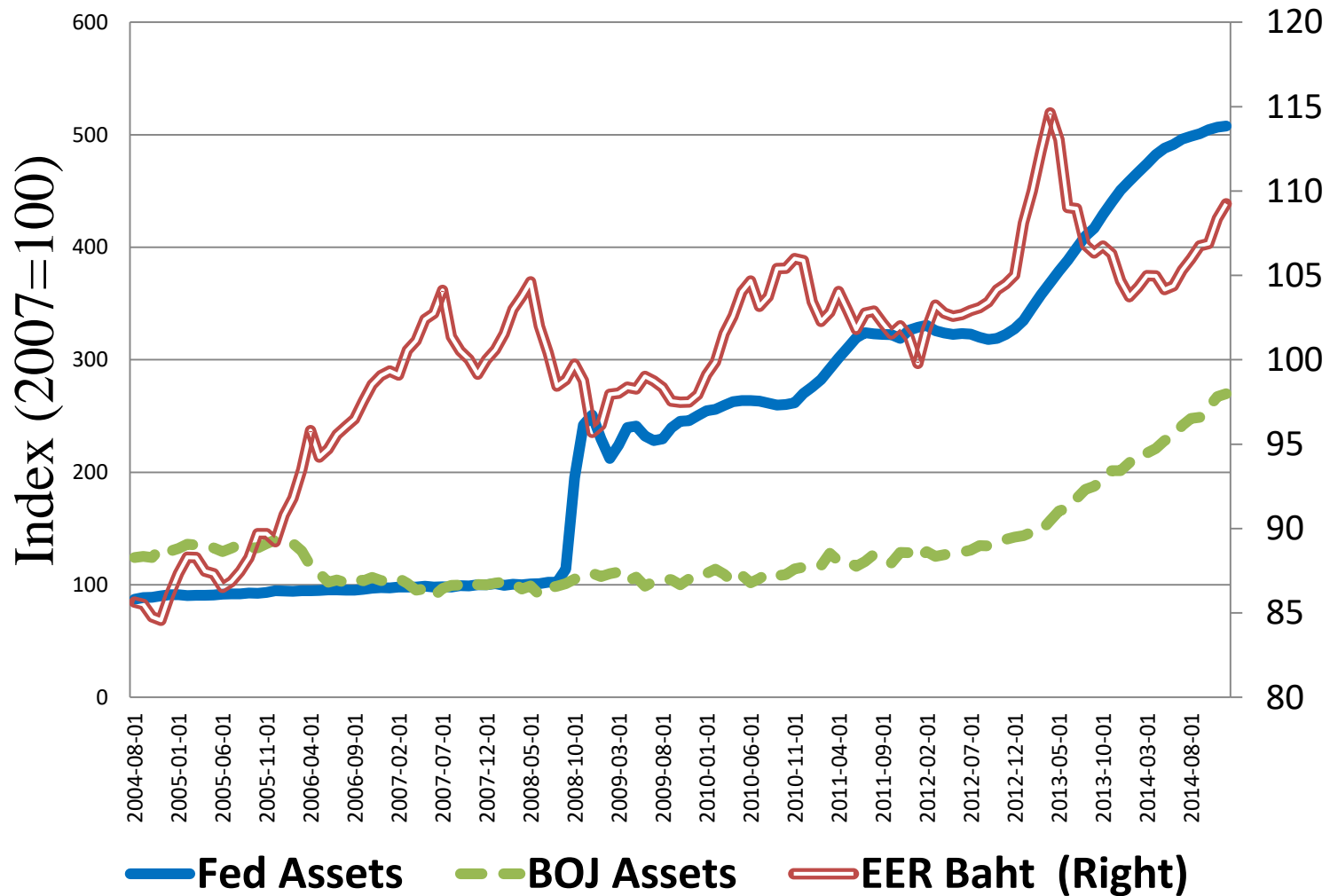
# BoT's Intervention in spot and future markets



## Swap Obligation (Billions of USD)



# Quantitative Easing (QE) Index and Thailand's international Competitiveness: Broad Real Effective Exchange rate (EER)



# **Federal Reserve wants to start unwinding the \$4.5 trillion in bonds on its balance sheet this year**

**April 4, 2017**

- Unwinding the balance sheet is significant both because of its sheer size and the impact it could have on markets, as Fed members including Chair Janet Yellen have indicated that the move itself would amount to a rate hike.
- The Fed amassed most of the bonds it owns during three rounds of "quantitative easing," a monthly bond-buying program aimed at juicing the economy following the financial crisis. The securities are mostly Treasury's and mortgage-backed securities

# Concluding remarks

- If the export engine of growth is damaged by the appreciation of the baht against the dollar, fiscal policy must be employed to counteract economic downturn.
- Given political instability and the loss of investor confidence, expansionary fiscal policy is less effective when undertaken during the absence of consumer confidence.
- The military coup in May 2014 rules out the use of fiscal policy to offset the fall of exports, because of the interruption in the fiscal budget process.

# Concluding remarks

- As a result, Thailand's exports barely grew in 2014 and GDP growth rate declined from 2.3 percent in 2013 to 0.7 percent in 2014.
- Notwithstanding the economic slowdown, the stock market and property prices are booming, thanks to capital inflow from other parts of the world.
- One has to ask if Thailand is approaching the Minsky moment.

# Conclusions

- Appropriate policy responses to external shocks must include:
- Realistic exchange rates and positive real interest rates.
- Avoid price distortions caused by price controls.
- Intervention can be done in case of market failures: utilizing public spending to restore confidence
- Transparency to establish confidence and cooperation between private and public sector.

# Concluding remarks

- Until recently, Thailand's exchange rate policy has exhibited consistent market intervention.
- Output recovery depends on consumption rebound which requires consumer confidence.
- Export growth, an important growth driver in Thailand, is mainly determined by conditions in the world market rather than the bath's weakness.
- What does the lesson from the 1997 currency crisis tell us about Thailand's exchange rate policy in 2015 and 2016?