

Thailand's Exchange Rate Policy: lessons from the past

Bhanupong

Lecture 22

Pricing power: Asian 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 and data today are likely to show that the increase accelerated in October.
- A property rebound in China has fuelled 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*

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.***

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

Effective Exchange Rates: A weighted Average of bilateral exchange rates between the baht and other curries

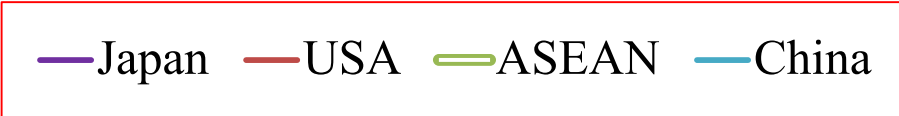
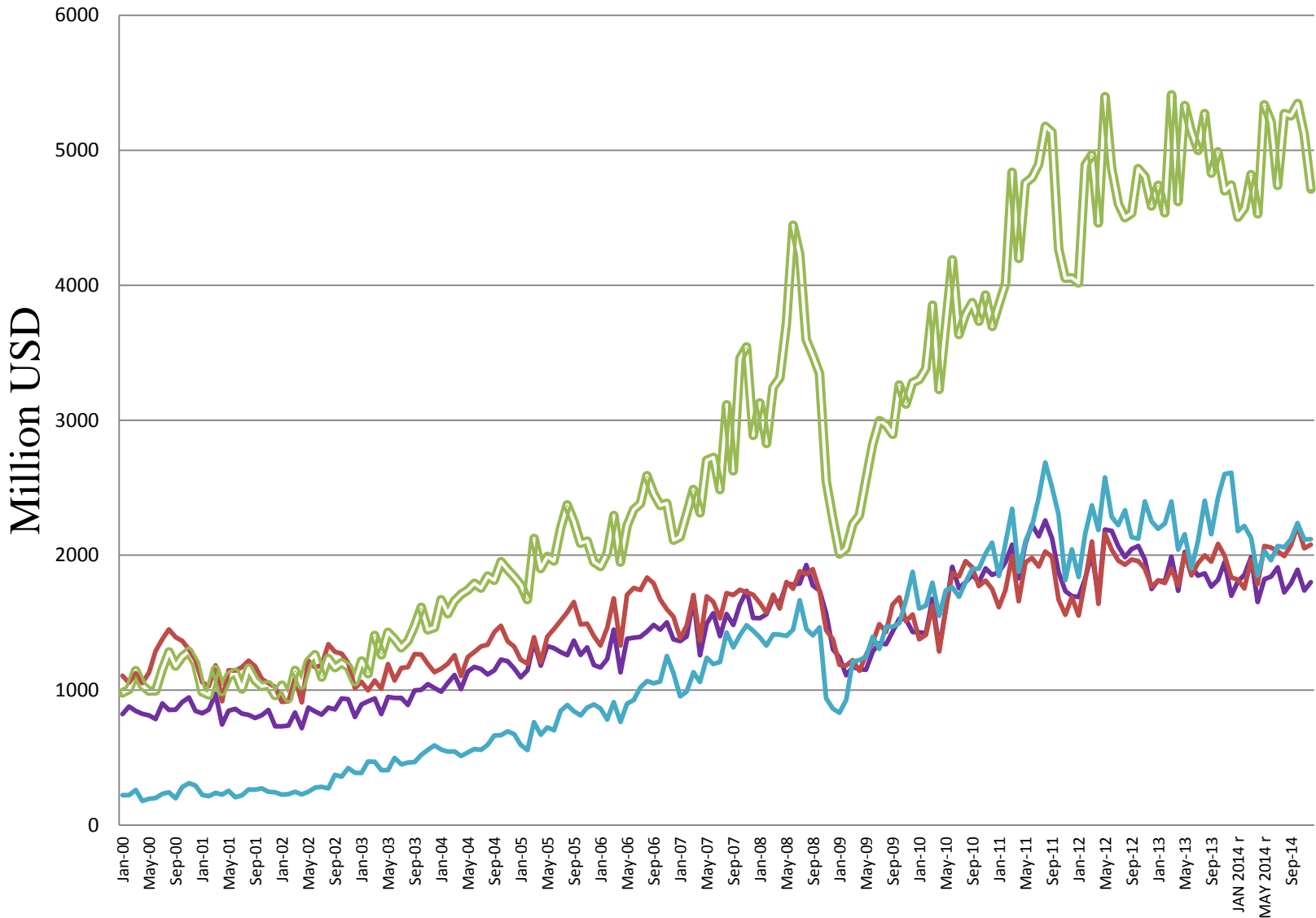
Nominal and Real Effective Exchange rates:
EER vs REER

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

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

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

Thailand's major export destinations



Capital inflows prior to 1997 crisis

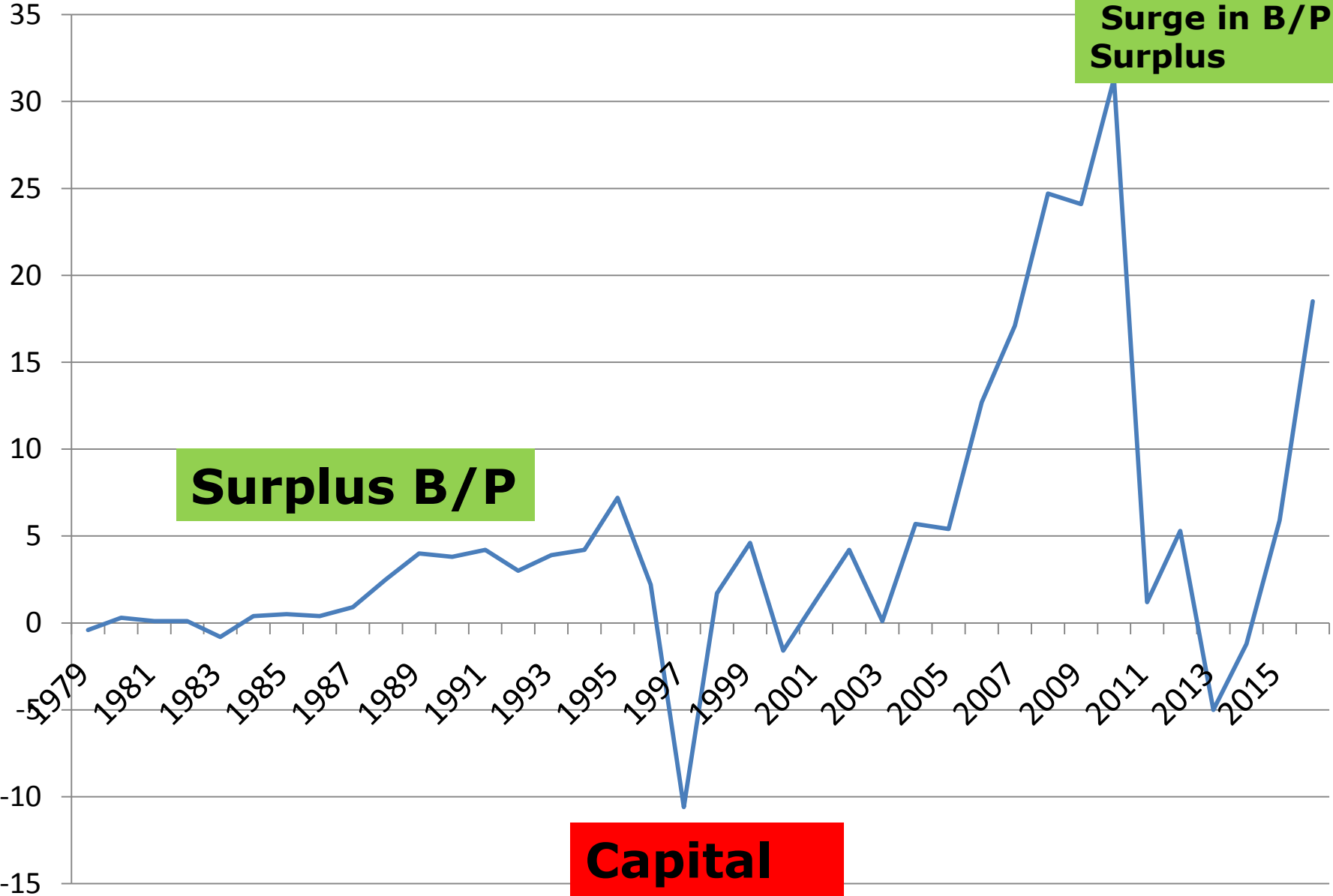
- A surge in capital inflows into Thailand began in the late 1980s and continued unabated until 1996.
- The flows brought high economic growth and a surplus in the balance of payments and current account deficit.

Balance of payments (Billions of USD)

**2010 and 2016:
Surge in B/P
Surplus**

Surplus B/P

**Capital
Outflows**



Causes of rapid capital inflows

- A declining in world interest rates widened the interest rate differentials, inducing excessive foreign borrowings.
- Domestic financial liberalization 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 through offshore borrowings by the nonbank private sector.

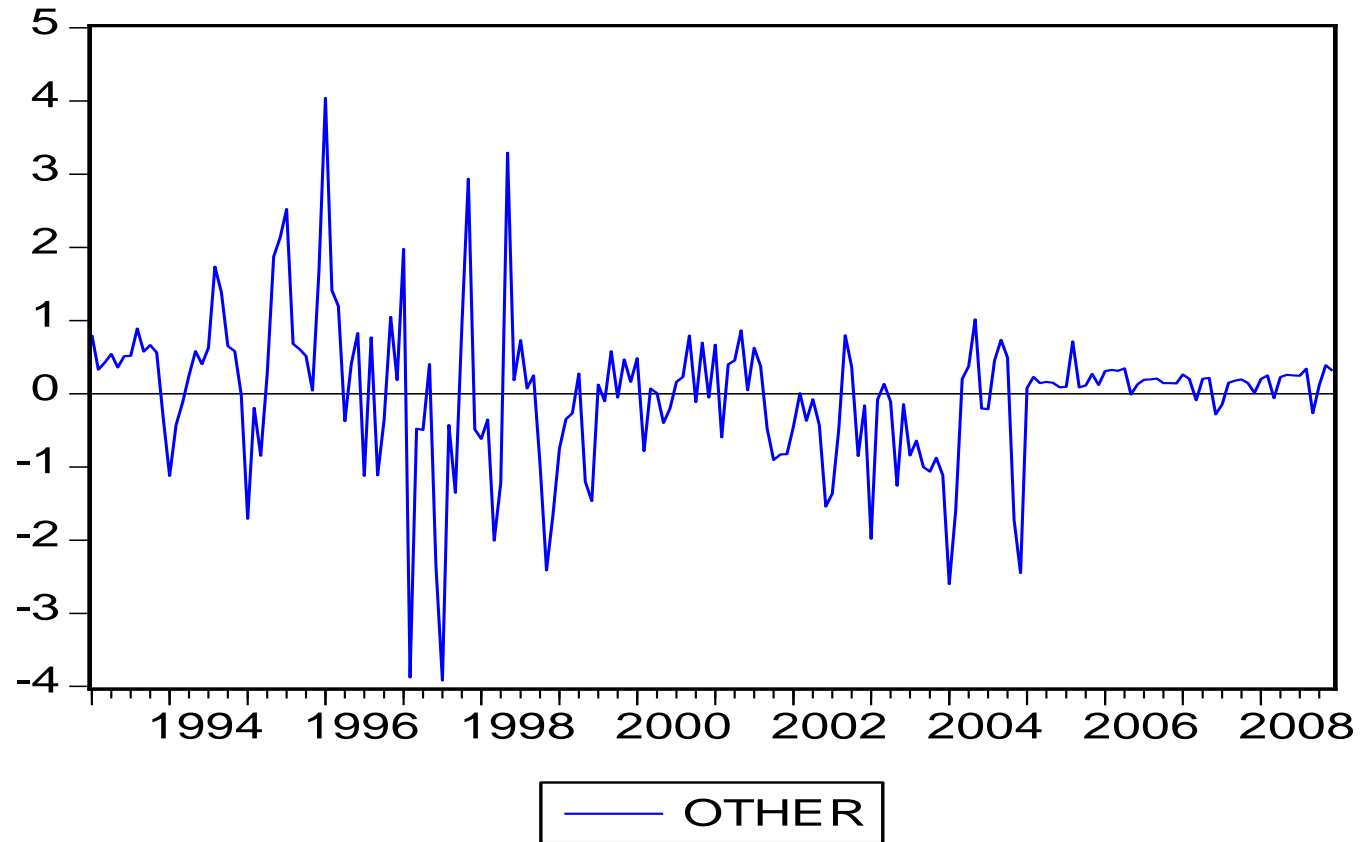
Determinants of capital flows: The fundamental equation

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

**The important role of expectations:
Capital outflows can be stopped when
There is no anticipation of further devaluation**

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

Speculative capital flows (OTHER) died off after realistic exchange rate was established



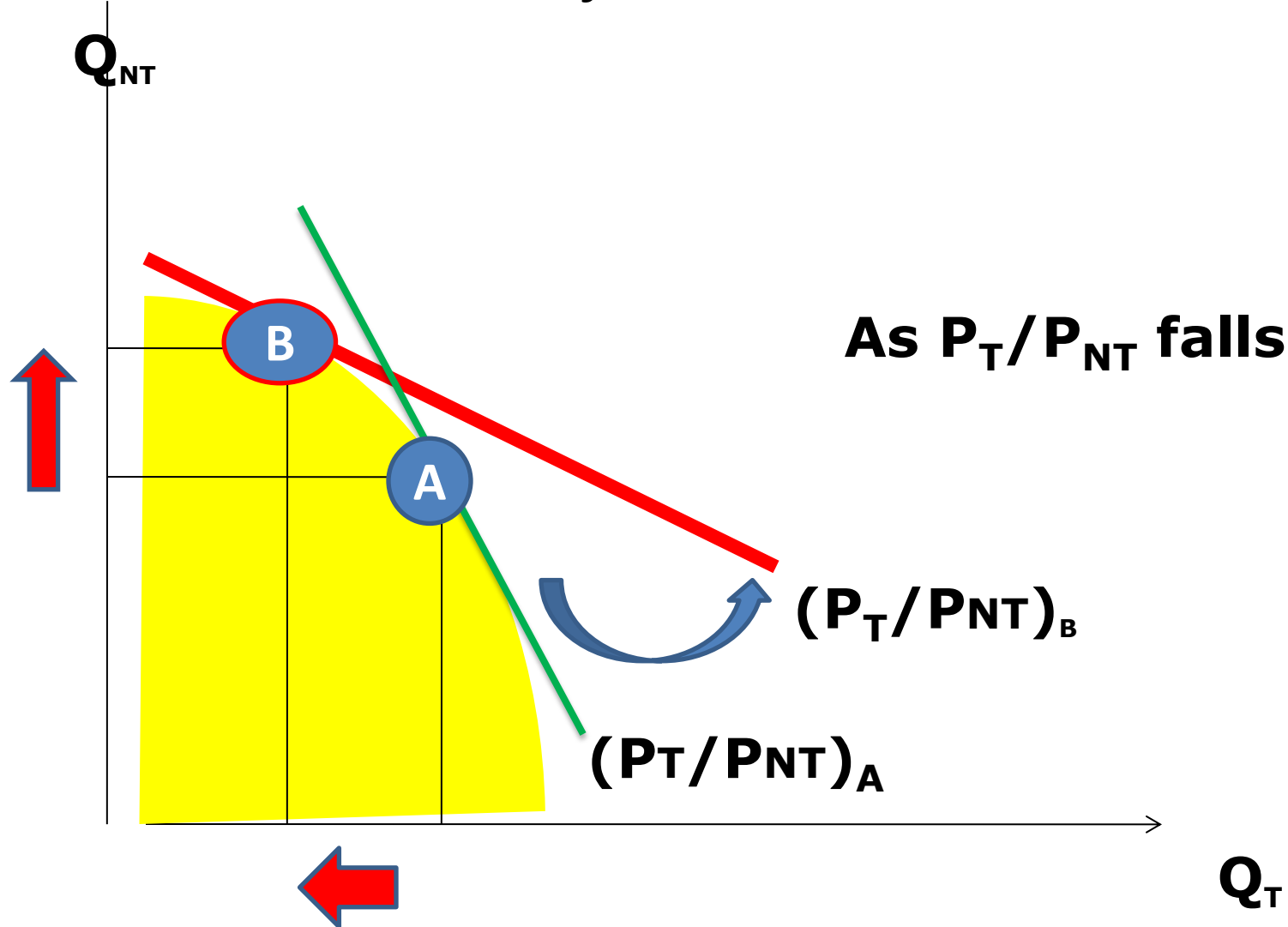
Adverse Consequences

- The surge in capital flows 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 (P_t/P_{nt})

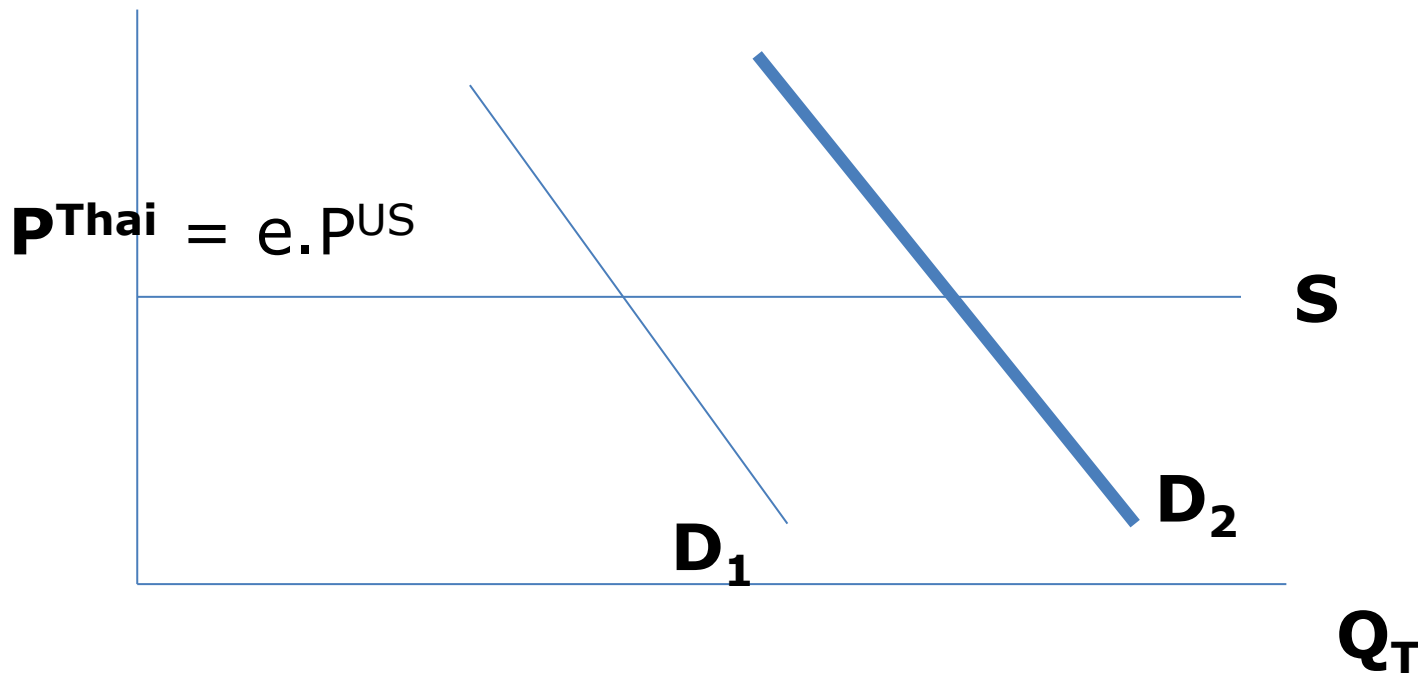
Dutch disease and the erosion of competitiveness:

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

Resources were transferred to non-traded sector

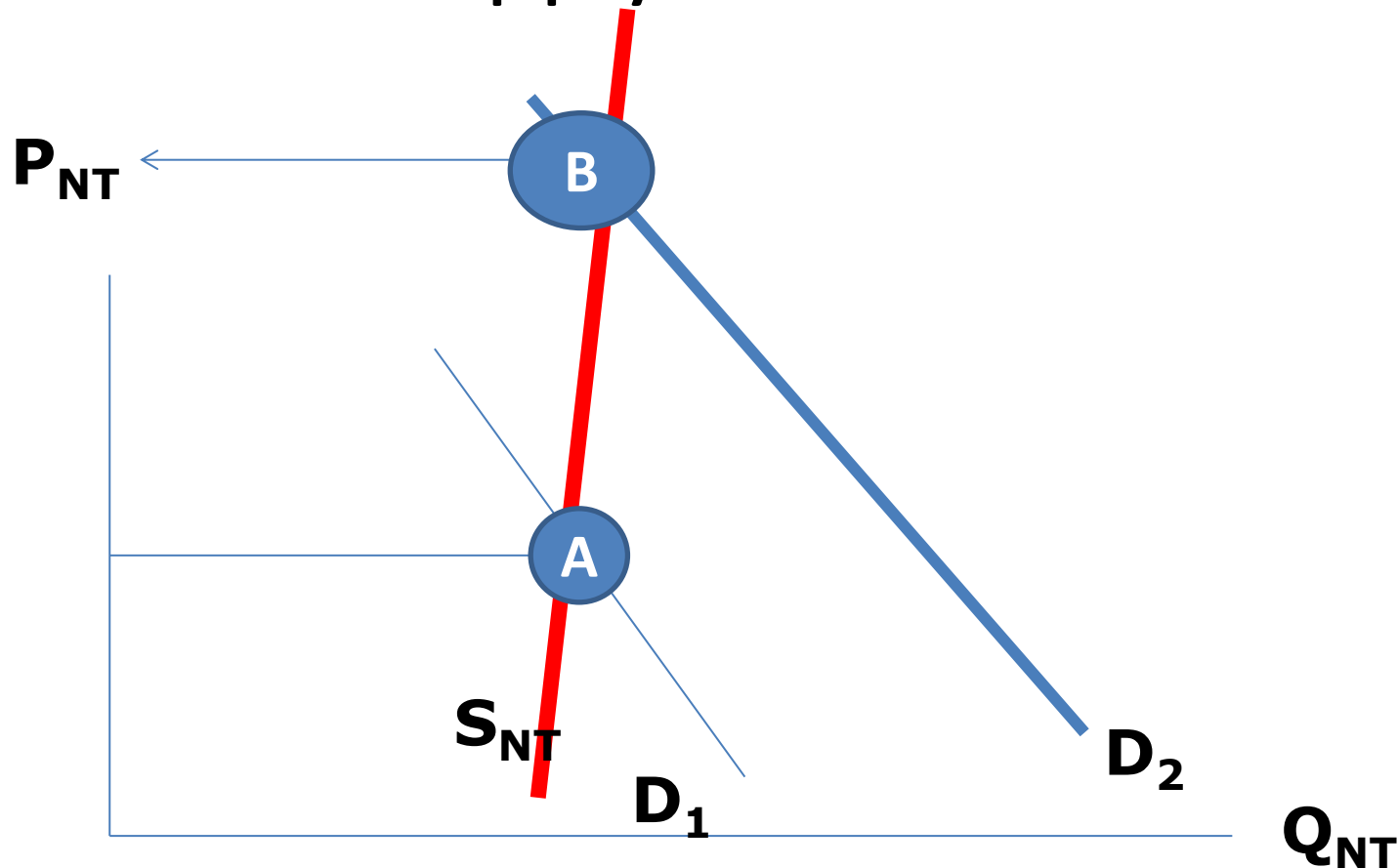


In the traded sector where the Law of One Price rules



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

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



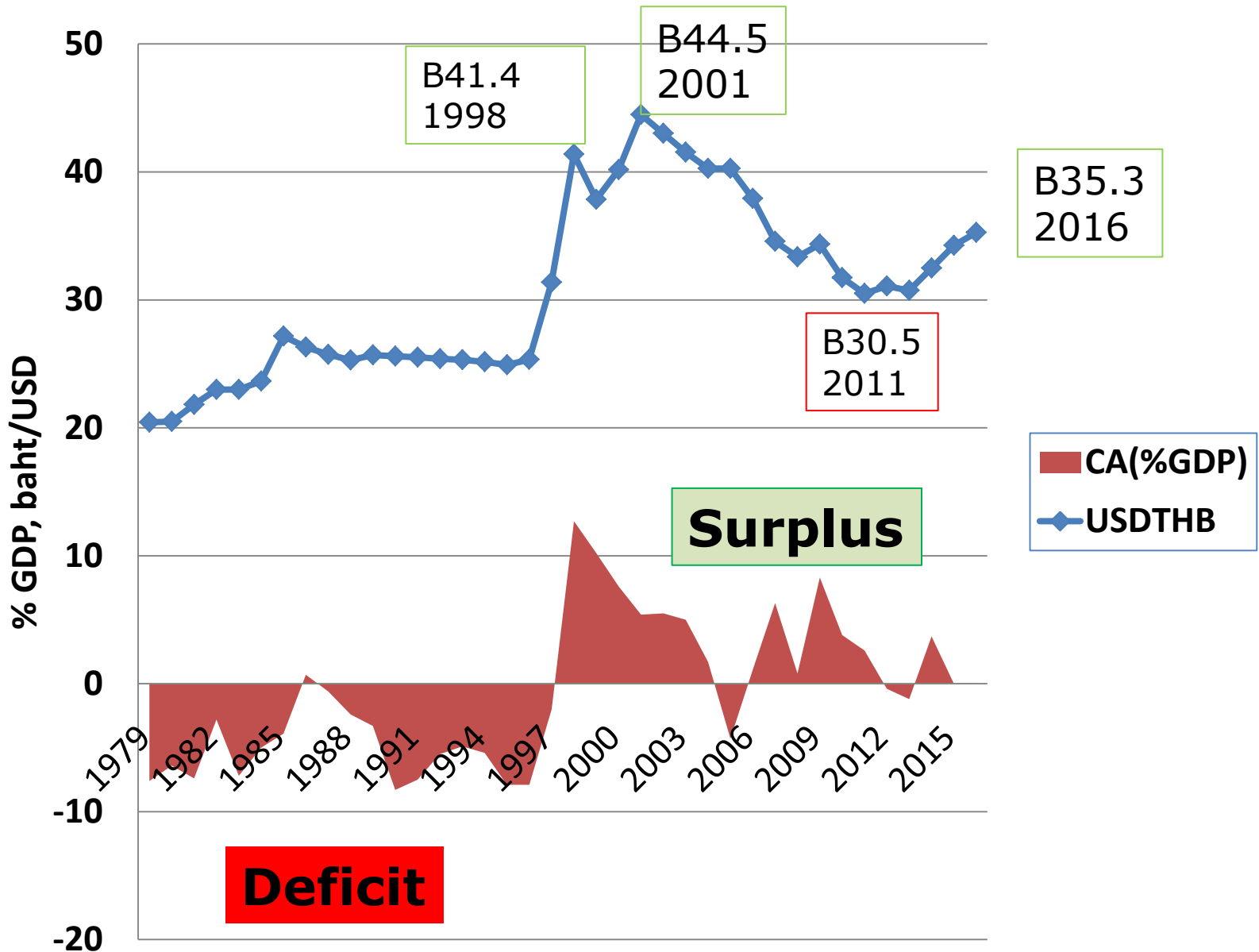
**D shifts as a result of capital inflows
 P_{NT} increases**

Economic crises in 1997/98

The reckoning day: July 2, 1997

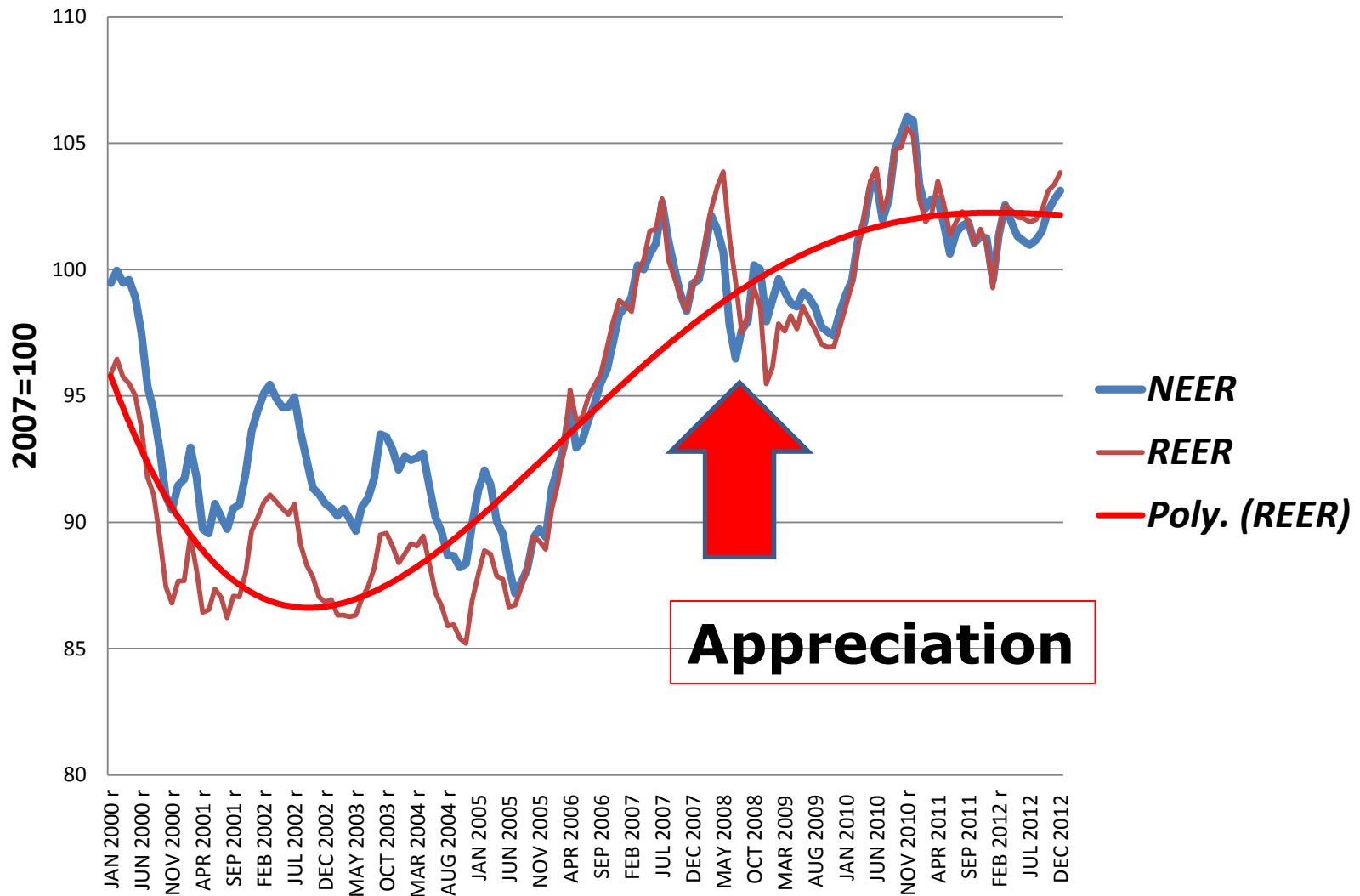
- With the baht succumbing to speculative attacks, the BoT decided to float it on July 2, 1997.
- Without a nominal anchor and given the lack of **political credibility**, the value of the baht fell by 56% through to January 1998.
- The deficit became surplus by income and substitution effects: expenditure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

USDTHB and the Current Account Balance

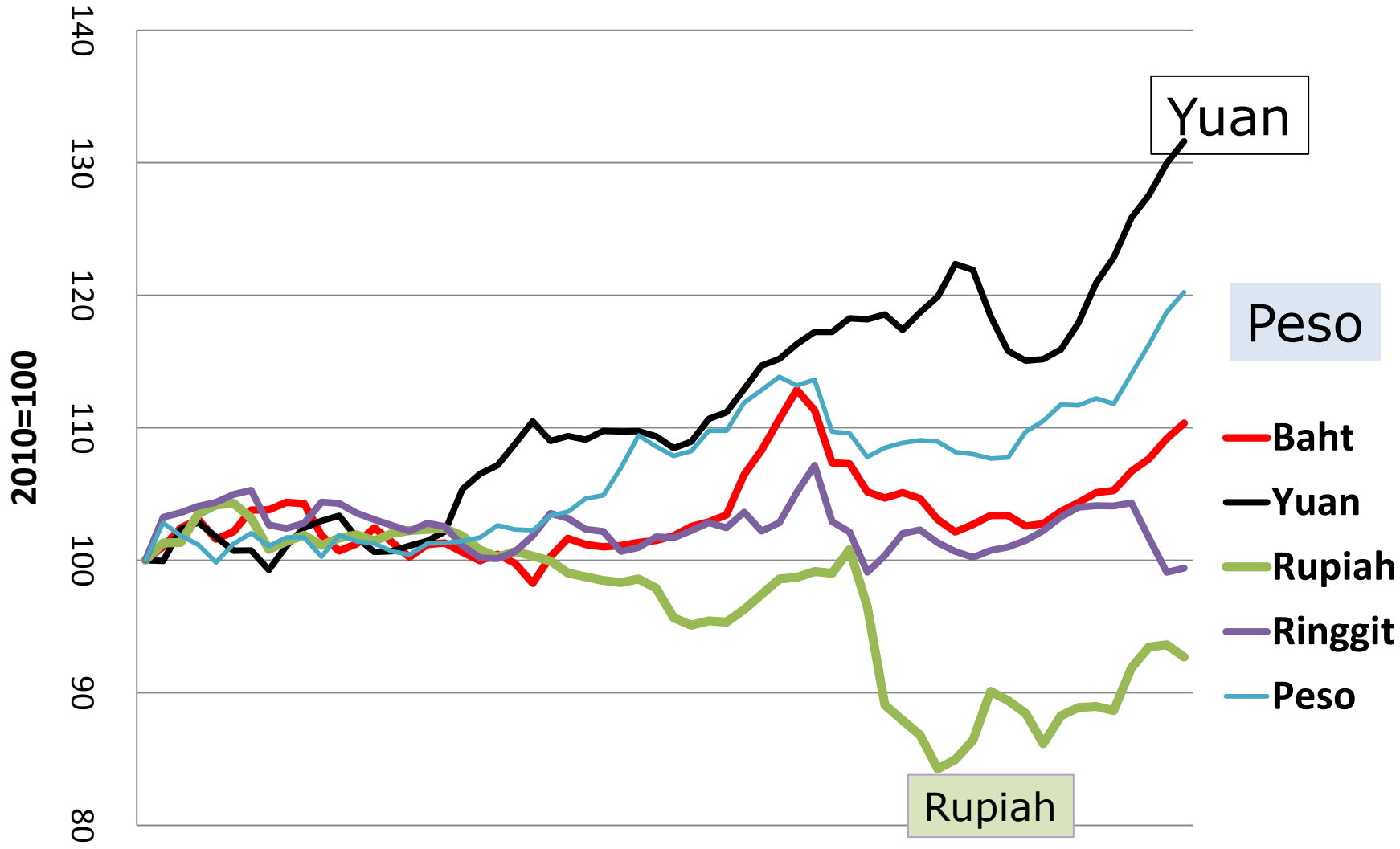


Effective Exchange rates: 2000-2012

Appreciation: Upward direction of the Index

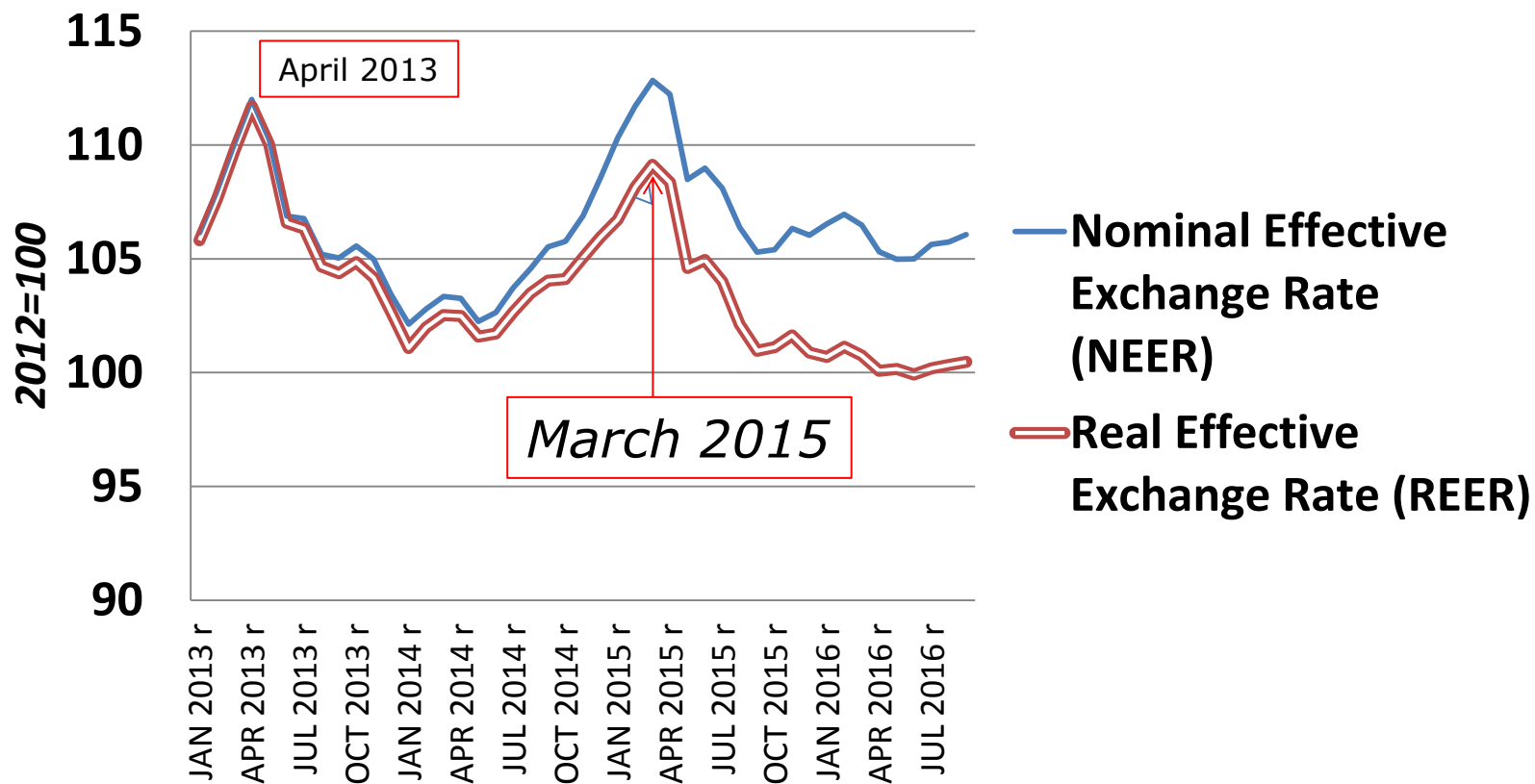


Index of Real Board Effective Exchange Rates 2010-2015



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).
- $\Delta NFA = \Delta H - \Delta DC$
- ΔNFA 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 monetary approach to the balance of payments and the IMF

- 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

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

- 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 can have both 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



SOURCE: TRADINGECONOMICS.COM

Source: Trading Economics.com

What is an 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 changes in the yen-dollar rate.

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 (June 2016)

The Philippine Peso: The impact of policy uncertainty



News and the exchange rate movements

- November 8, 2016: Mexican peso dived to record low as Donald Trump edged closer to winning the White House by taking over battleground states such as Florida and Ohio.
- South Korean won fell to the lowest level since early July on Wednesday after Donald Trump won US presidential election, raising uncertainties over a potential change in trade agreements.
- The won plunged 1.28% to 1146 around 11:10 AM London time.

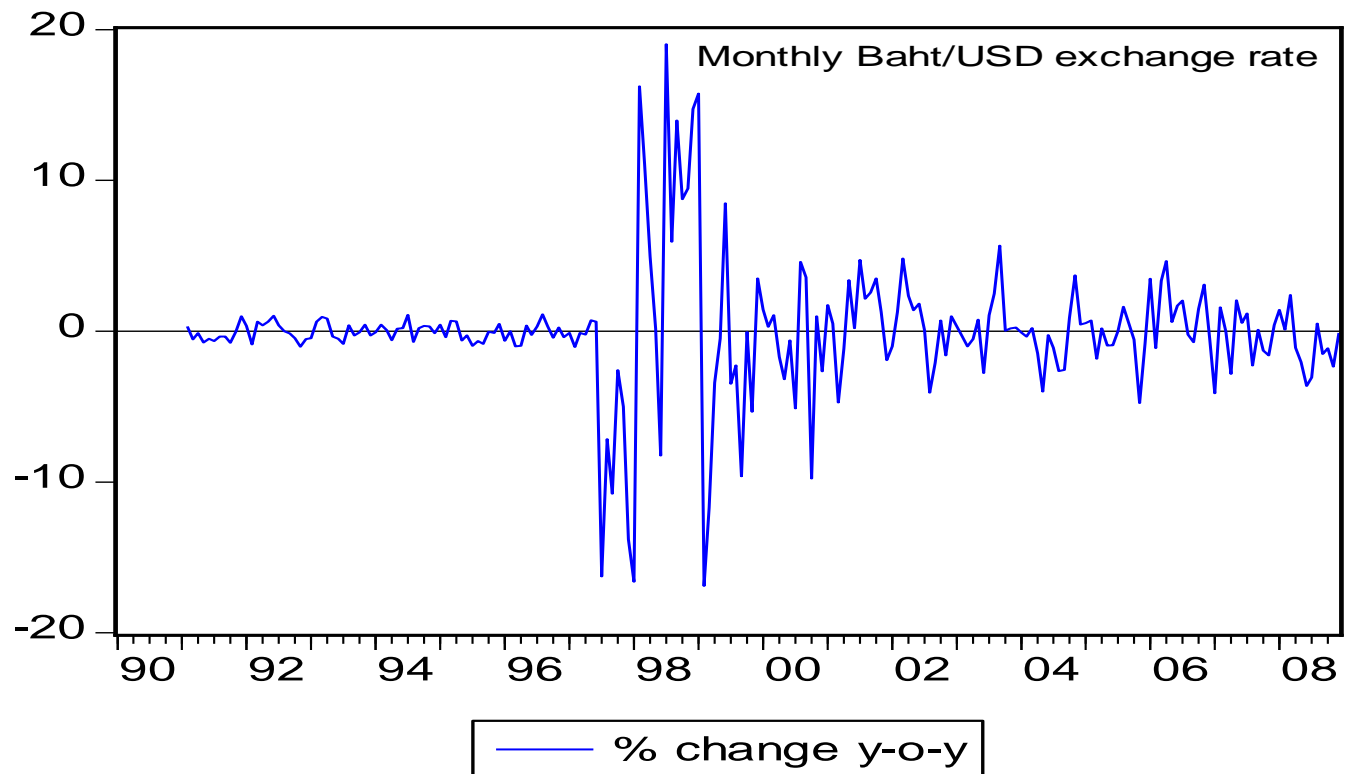
The Mexican peso and the Korean Won



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

Trouble in the banking sector

- In the aftermath of the currency shock in 1997/98, banks were not willing to lend since the value of the collateral had declined sharply, resulting in the contraction of firms' working capital.
- Large corporations with higher leverage-- in particular, firms that had issued debt instruments in foreign currencies—were not able to service their debt after the unprecedented fall of the baht.
- Banks become more cautious and reduced their credit risk exposure and attempted to rebuild their equity capital.

At the threshold level of currency depreciation rate

- Mild currency depreciation can stimulate growth through export expansion.
- Currency depreciation can be contractionary when the exchange rate depreciates substantially above the threshold level, which triggers bank credit crunch.
- Investment declines because it depends of availability of bank credit.

At the threshold

- If firms and banks accumulate large amounts of un-hedged foreign debt, a high rate of depreciation that exceeds the threshold level can trigger technical bank failure and thereby reduce bank lending.
- Shortages of loanable funds may arise from the redistributive effects of bank deposits and withdrawals from aggressive to conservative banks
- A sharp decline in investment and durable goods consumption would follow.

Currency and banking crises and related

- It is equally possible that currency appreciation can stimulate growth despite its negative impact on net exports.
- The crucial factor is the impact of the currency changes on bank credit.
- A country can experience currency appreciation and economic growth as long as domestic credit increases at normal phase.

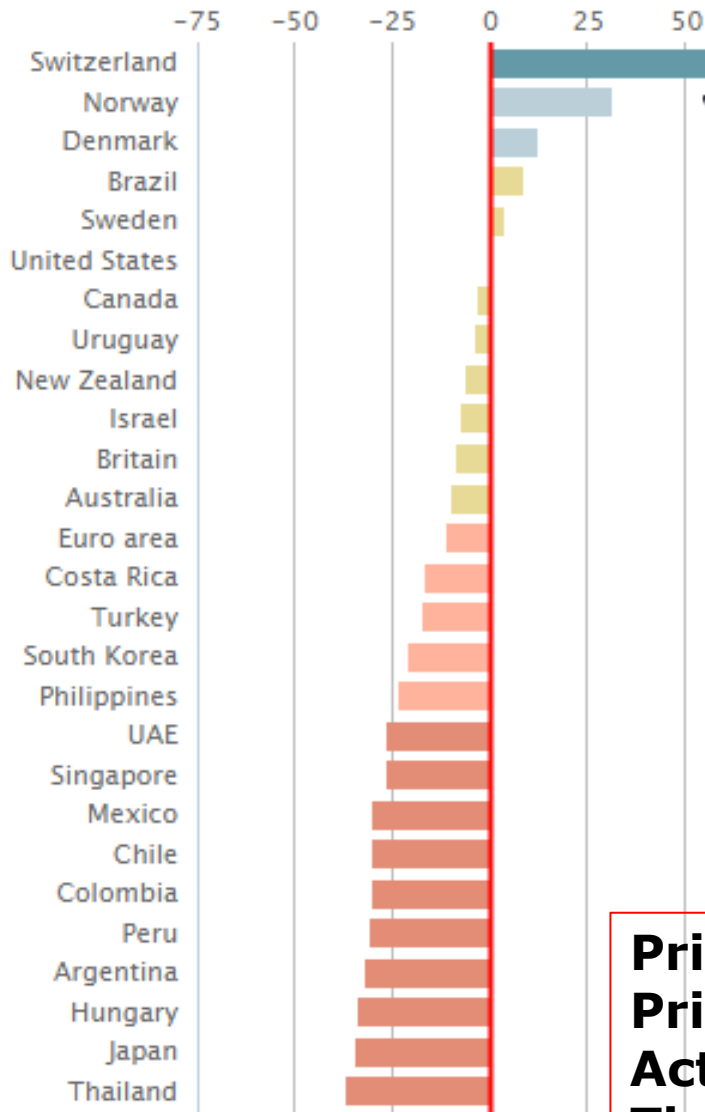
Should the baht be kept undervalued?

- 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.
- The Big Mac Index: Burgernomics

Burgernomics

- 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

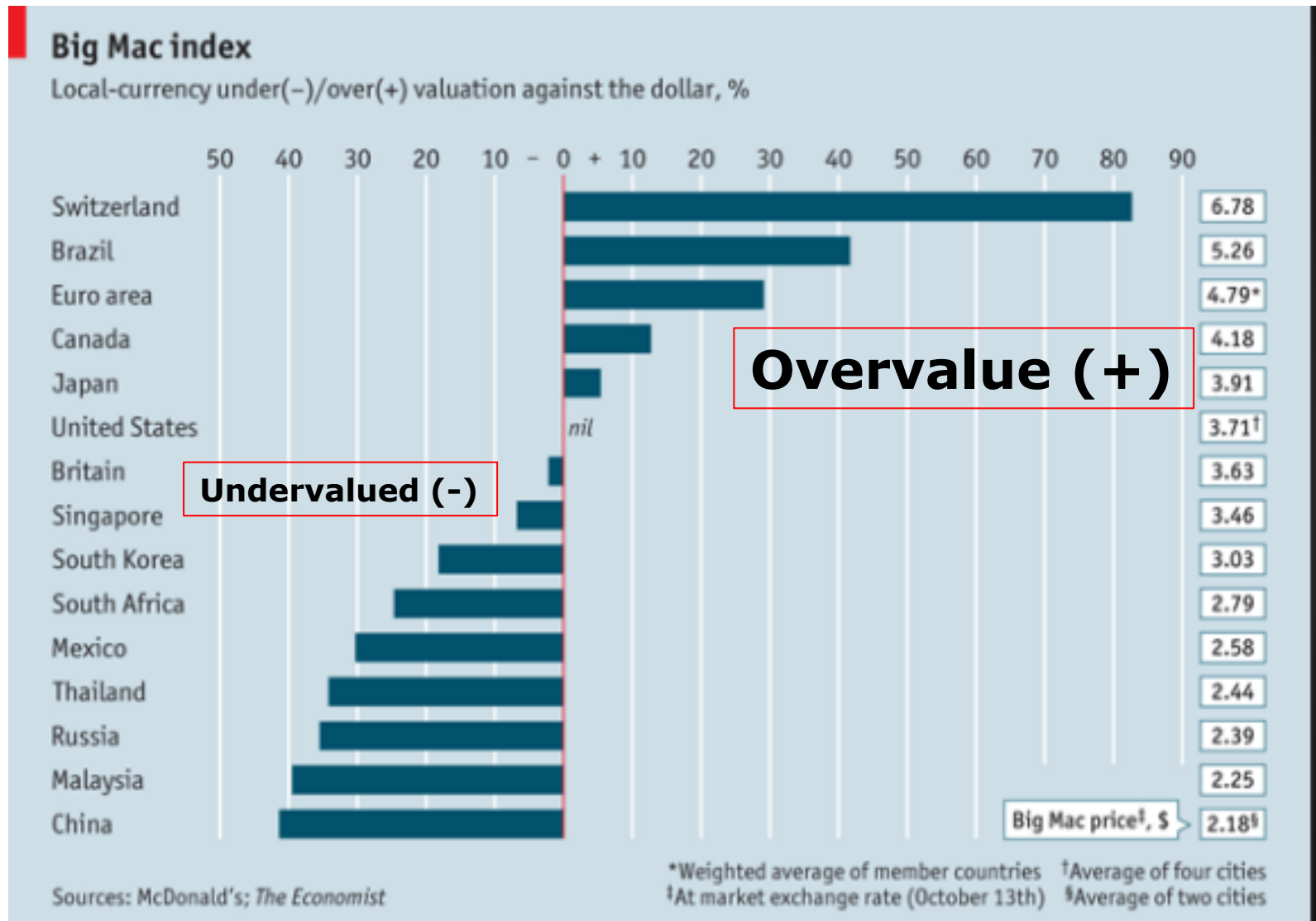
Price in Thailand: 99 baht

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 %

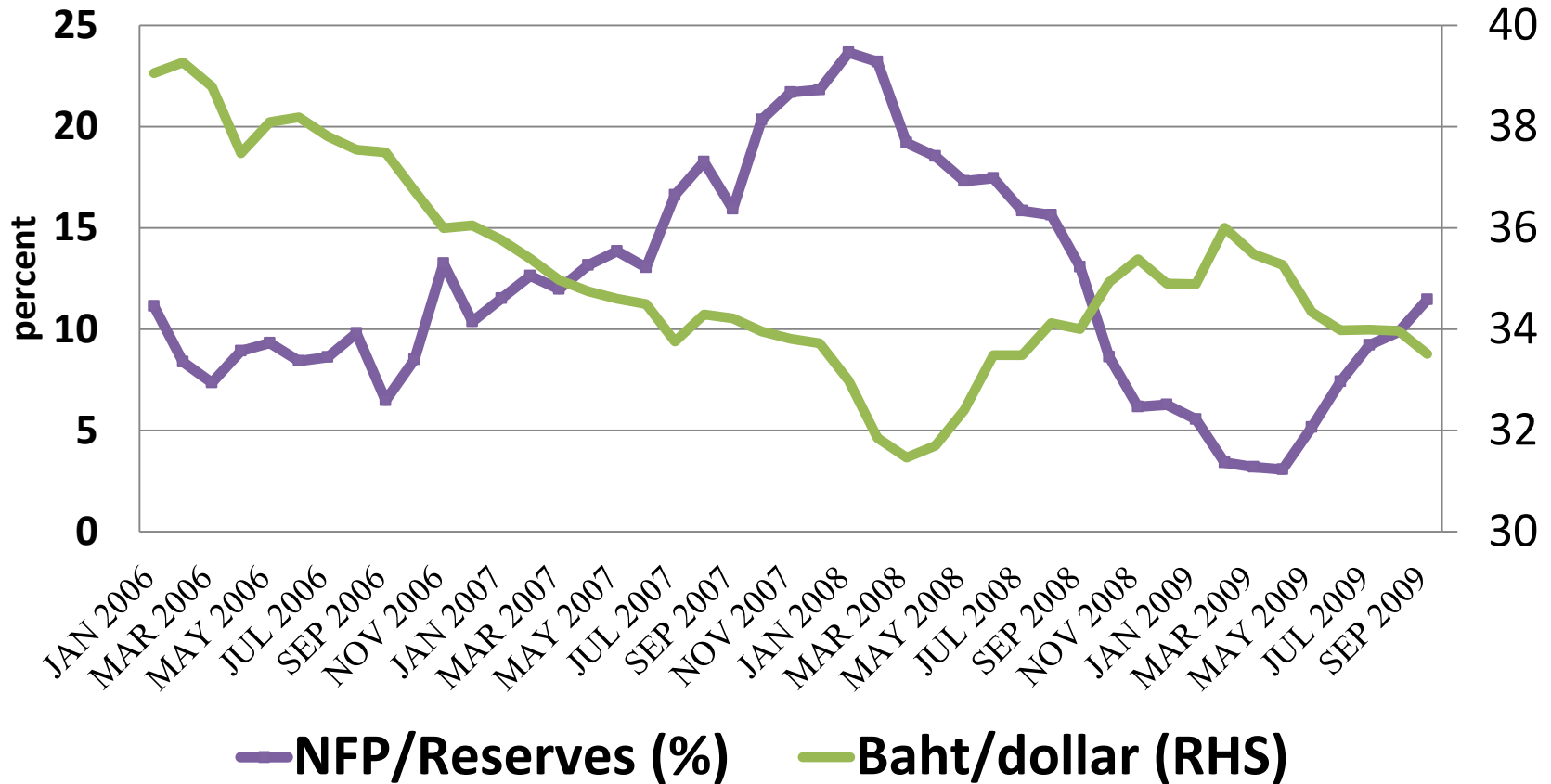


Determinants of the baht-dollar exchange rate

- 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

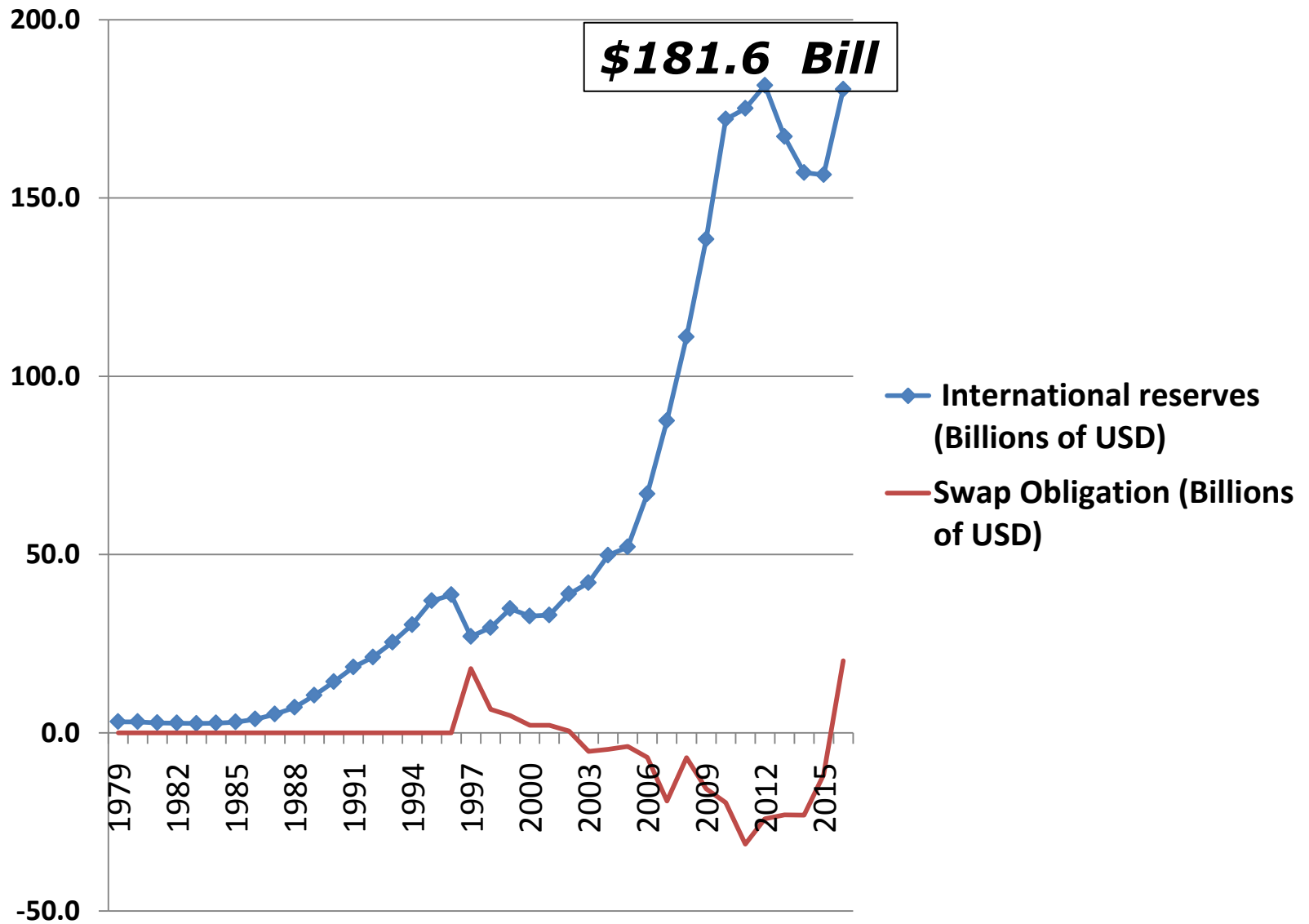
Buying the dollar forward (selling the baht forward) to prevent baht appreciation



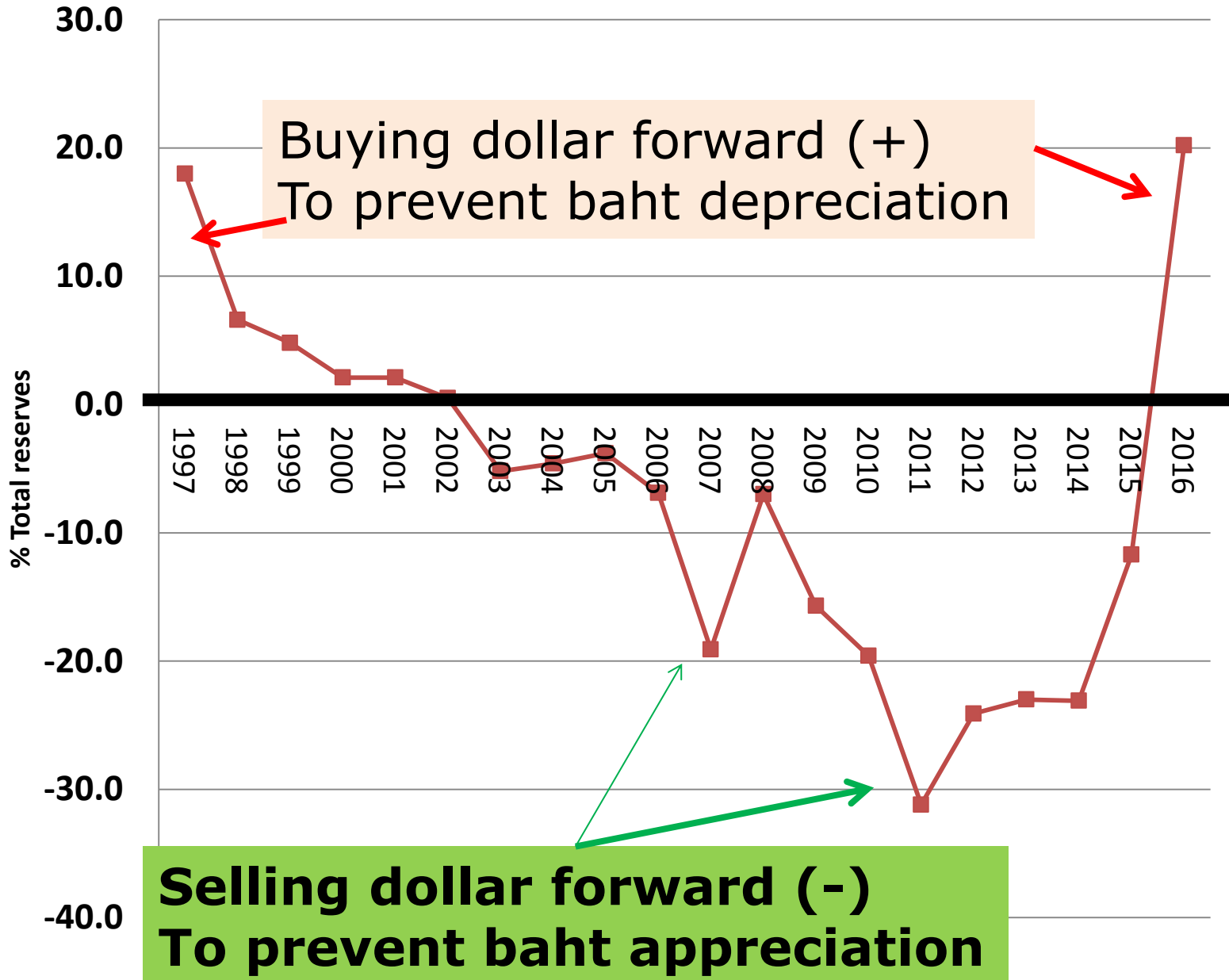
International Reserves: A record high in 2012

- 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.

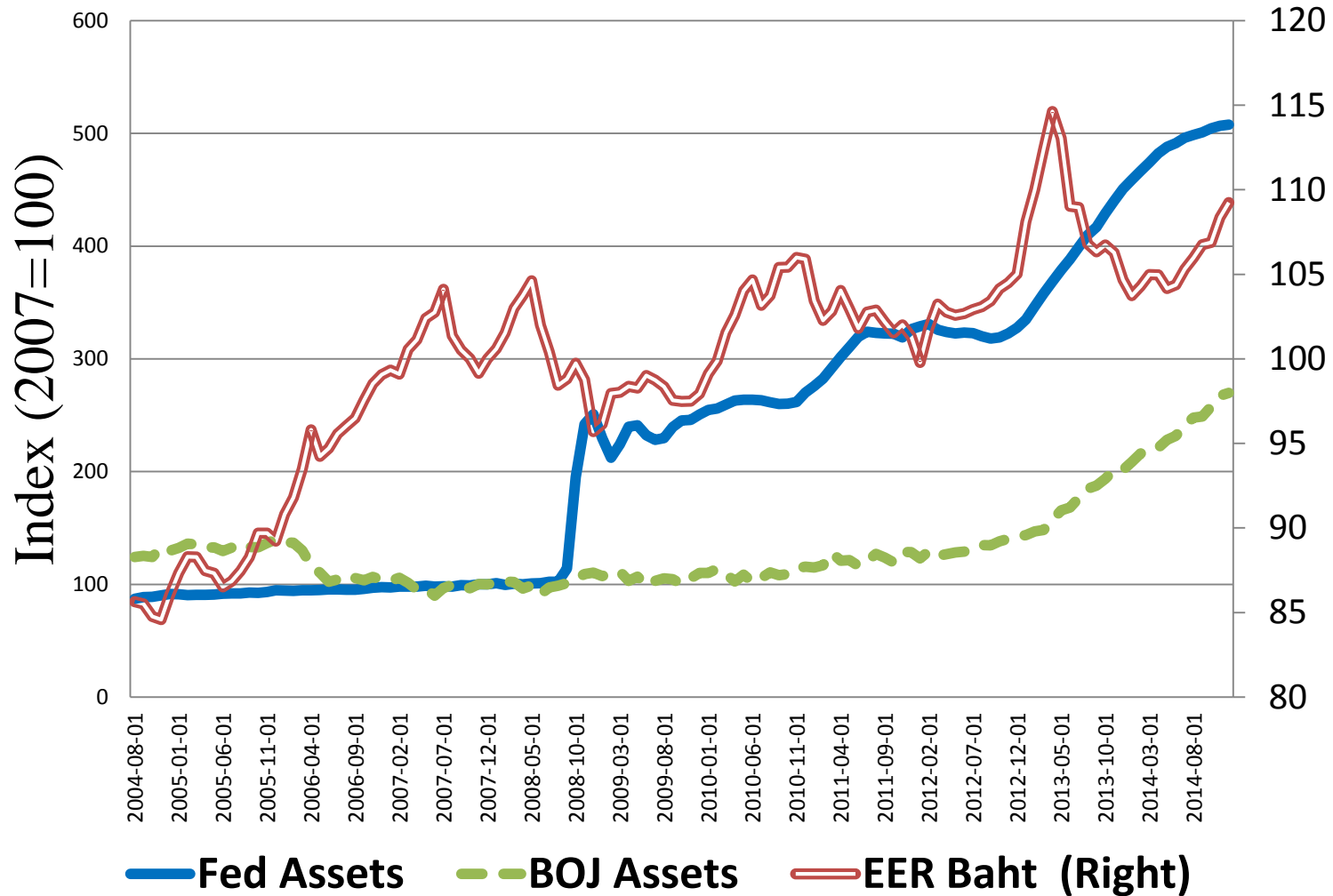
BoT's Intervention in spot and future markets



Swap Obligation (Billions of USD)



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



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.

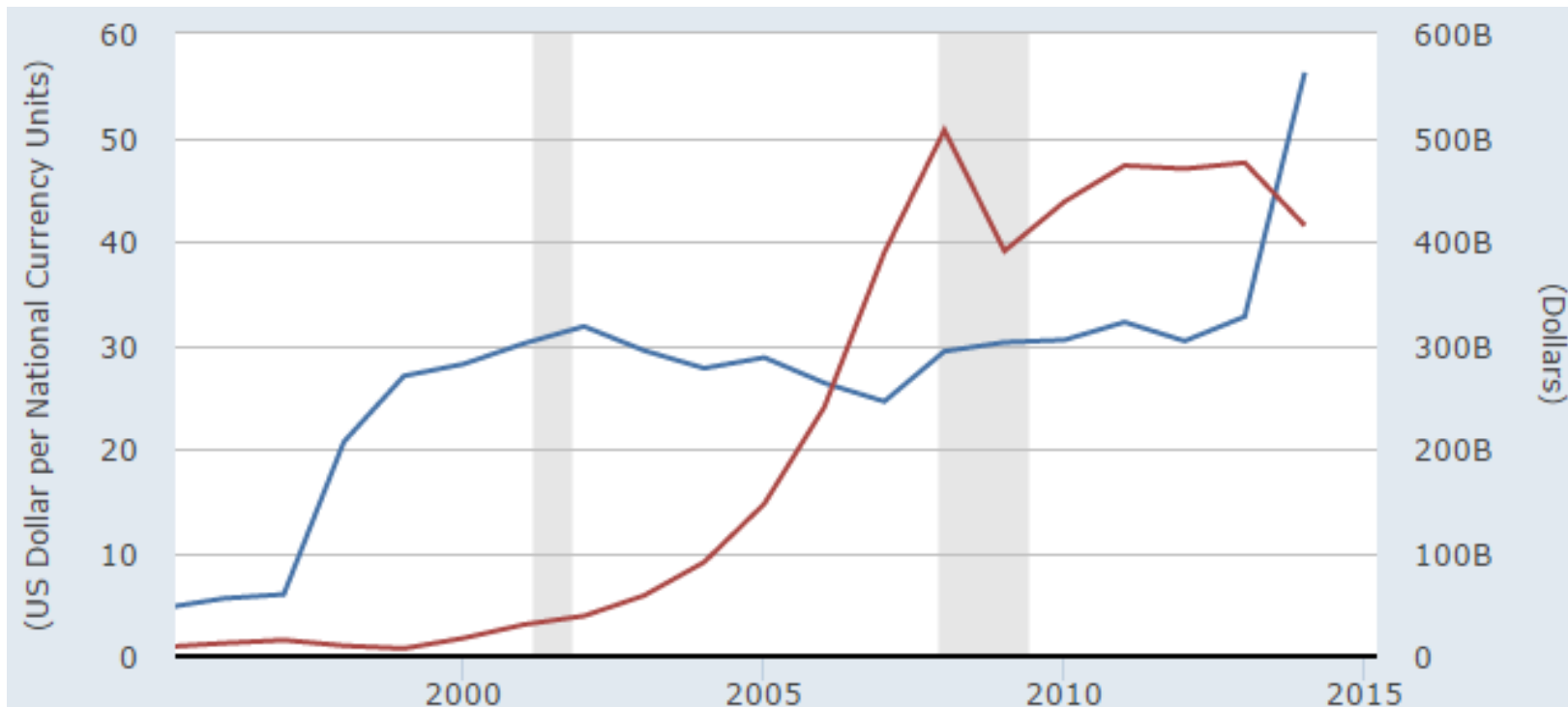
Russian ruble hits all-time low as support reduced

November 6, 2014

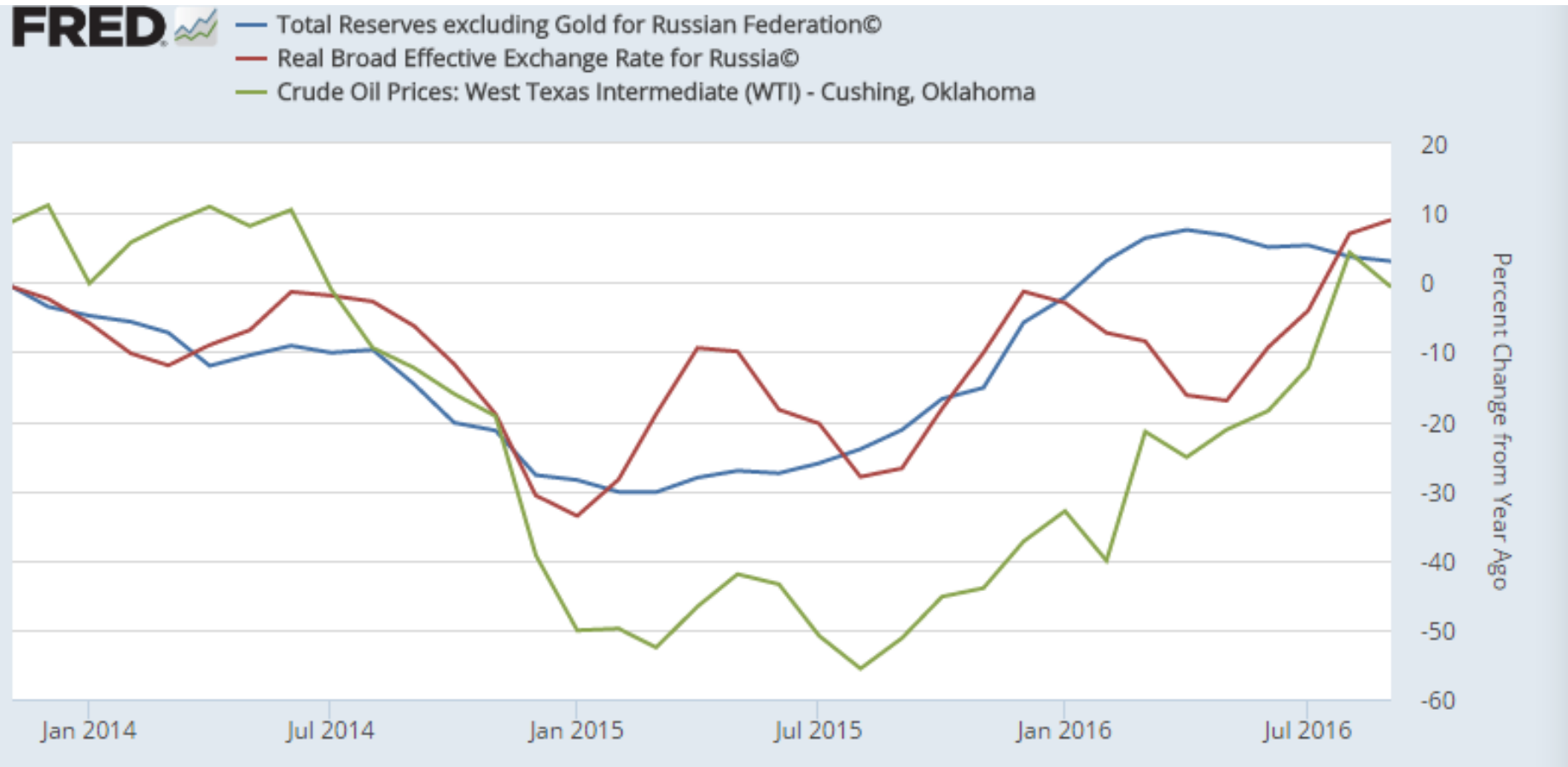
- As confidence in the Russian economy wanes, supporting the ruble is proving increasingly difficult — and expensive.
- The ruble has lost more than 25 percent this year amid concern over economic sanctions from the United States and the European Union as well as a fall in the price of oil and gas exports.
- The Russian Central Bank said it would limit its intervention in markets to **\$350 million** a day.
- **The bank spent as much as \$3 billion a day in October 2014 trying to support the ruble.**
- The announcement saw the ruble drop 3 percent in the day to 44.9 to the dollar in late trading on the MICEX exchange in Moscow.

Russia's international reserve

Ruble-dollar exchange rate



Source: Federal Reserve Economic Data



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?