

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

Bhanupong

Lecture 22

Chapter 7: Exchange rate policy

# Strong baht battering rice shipments

Bangkok Post: 23 September 2019

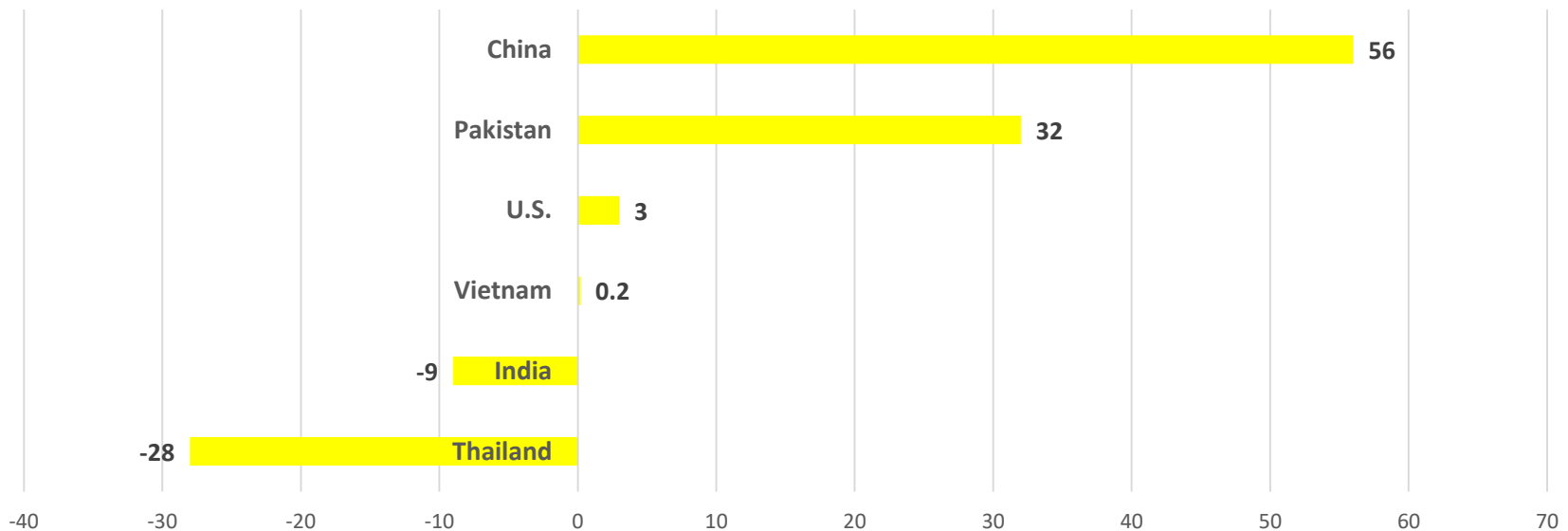


# As Thailand's Baht Surges, Rice Farmers Feel the Pain

- The free-on-board prices of Thai 5% white rice are quoted at US\$400 a ton, while those of Vietnamese rice are quoted at \$320 a tone.
- According to the latest report by the Commerce Ministry, Thailand's rice exports in the first eight months fell by 26.3% to 5.3 million tons. Export value slid 22% to \$2.87 billion.
- Given the strong baht, we expect buyers like the Philippines, Indonesia and Malaysia to switch to buying rice from Vietnam instead of Thailand.
- Key threats to Thai rice exports include the strong baht and lower purchase demand from China, which holds hefty rice stocks.

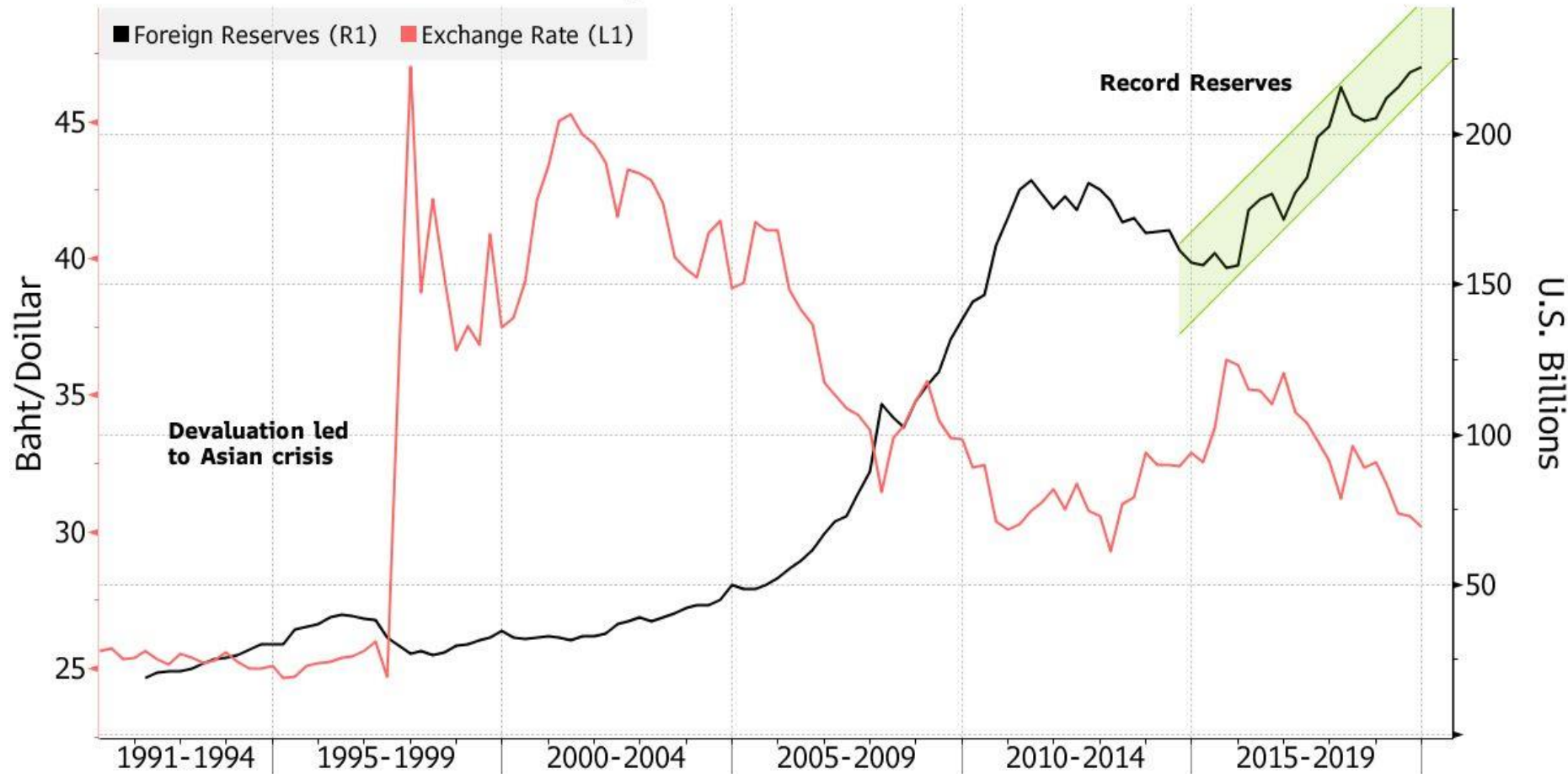


Rice export volumes  
Jan-Sep 2019: (% y-o-y)



# Big Stash

Thai reserves have reached an unprecedented level



Source: Bloomberg

# Course Syllabus

## Lecture 22

- **Exchange rate policy, capital controls, and the baht appreciation**
- What extent that export growth depends on weak currency?
- Intervention in the foreign exchange markets is ineffective because the dollar and short-term capital flow into asset markets dictate the baht external value.
- What were the consequences of capital control imposed in 2006?

# Key words

1. The real exchange rate
2. The Dutch Disease
3. The Monetary Approach to B/P
4. Implications of a flexible exchange rate regime
5. Fear of appreciation
6. Currency manipulators

# 1. Two Definitions of the Real Exchange Rate (RER):

## The first definition:

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 ( $e^*$ ) depends on the nominal rate and the price ratio between the US and Thailand's price levels

Real exchange rate ( $e^*$ ) is the Nominal Exchange Rate ( $e$ ) adjusted by price ratio between foreign price and domestic ( $P^*/P$ ):  $e^* = e(P^*/P)$

# Gain in competitiveness

Thailand's inflation must be lower than the U.S.

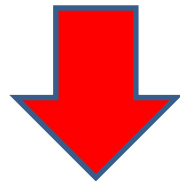
**Depreciation**

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



**RER**

When nominal exchange rate (e) is fixed



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

**Appreciation**

**Loss of competitiveness**

If Thailand inflation is higher than the U.S.

# Effective Exchange Rates: A weighted average of bilateral exchange rates between the baht and other currencies

Nominal and Real Effective Exchange rates:  
***NEER vs REER***

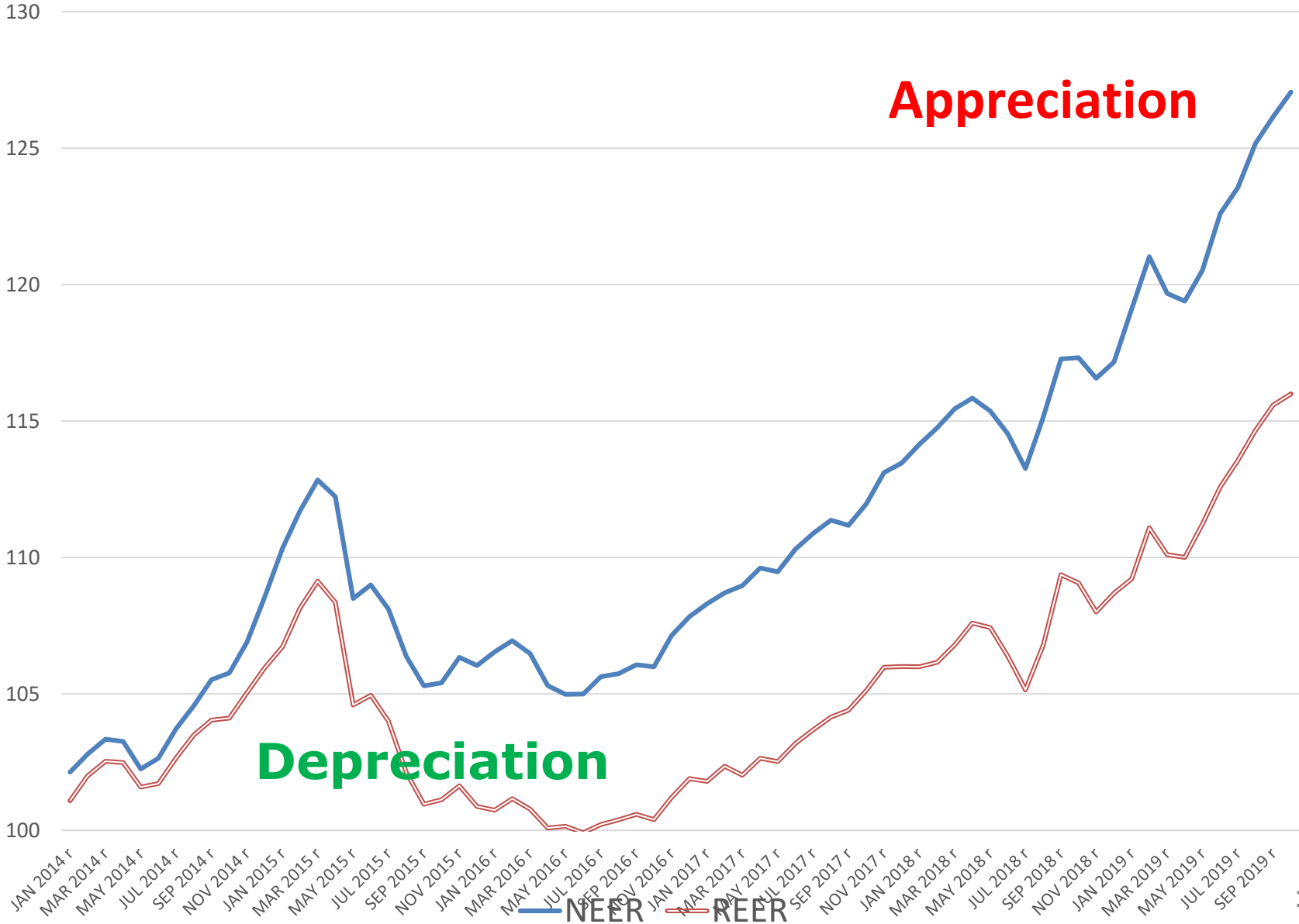
$$EER = \theta_1(B / \$) + \theta_2(B / Y) + \theta_3(B / Euro) + \theta_4(B / S) + ..$$

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

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

**+ RMB**

# Baht effective exchange rates



# The fixed exchange rate system

## Before the 1997 crisis

- **Volatility** in exchange rates creates risks and uncertainties in trade and investment.
- The **fixed rate** may have promoted trade and investment in the short run because a fixed exchange rate regime creates **an illusion of a zero-exchange rate risk**.
- Premature relaxation of capital controls encouraged **over-borrowing** in foreign currencies due to the absence of exchange rate risks.
- **Currency and maturity mismatching** of Thai commercial banks widened exposure to external shocks.

# Capital inflows before the 1997 crisis

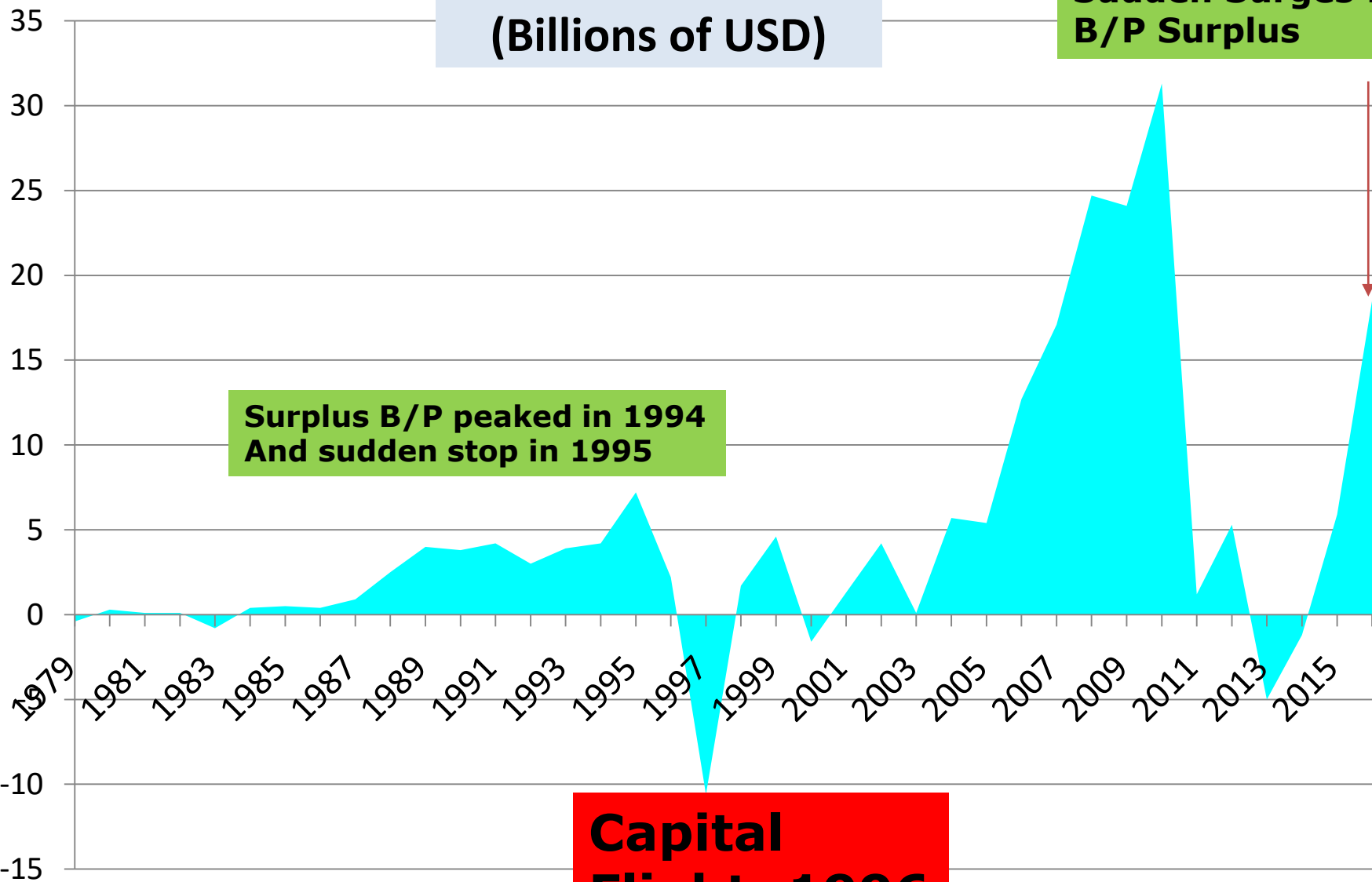
- *A surge in capital inflows into Thailand began in the late 1980s and continued unabated until 1996.*
- *The flows brought high economic growth and a surplus balance of payments and current account deficit.*
- *Why deficit current account?*

# Balance of payments (Billions of USD)

2009 and 2016: Sudden Surges in B/P Surplus

Surplus B/P peaked in 1994 And sudden stop in 1995

Capital Flight: 1996



# Causes of rapid capital inflows

- A declining in world interest rates widened the interest rate differentials, inducing excessive foreign borrowings (**push factor**)
- Domestic financial liberalization increased the sensitivity of capital flows to interest rate differential.
- How do we measure that sensitivity?
- The measures are undertaken to establish Thailand as a regional financial sector induced short-term capital flows through offshore borrowings by the nonbank private sector.
- Recall push factors vs. **pull factors**.

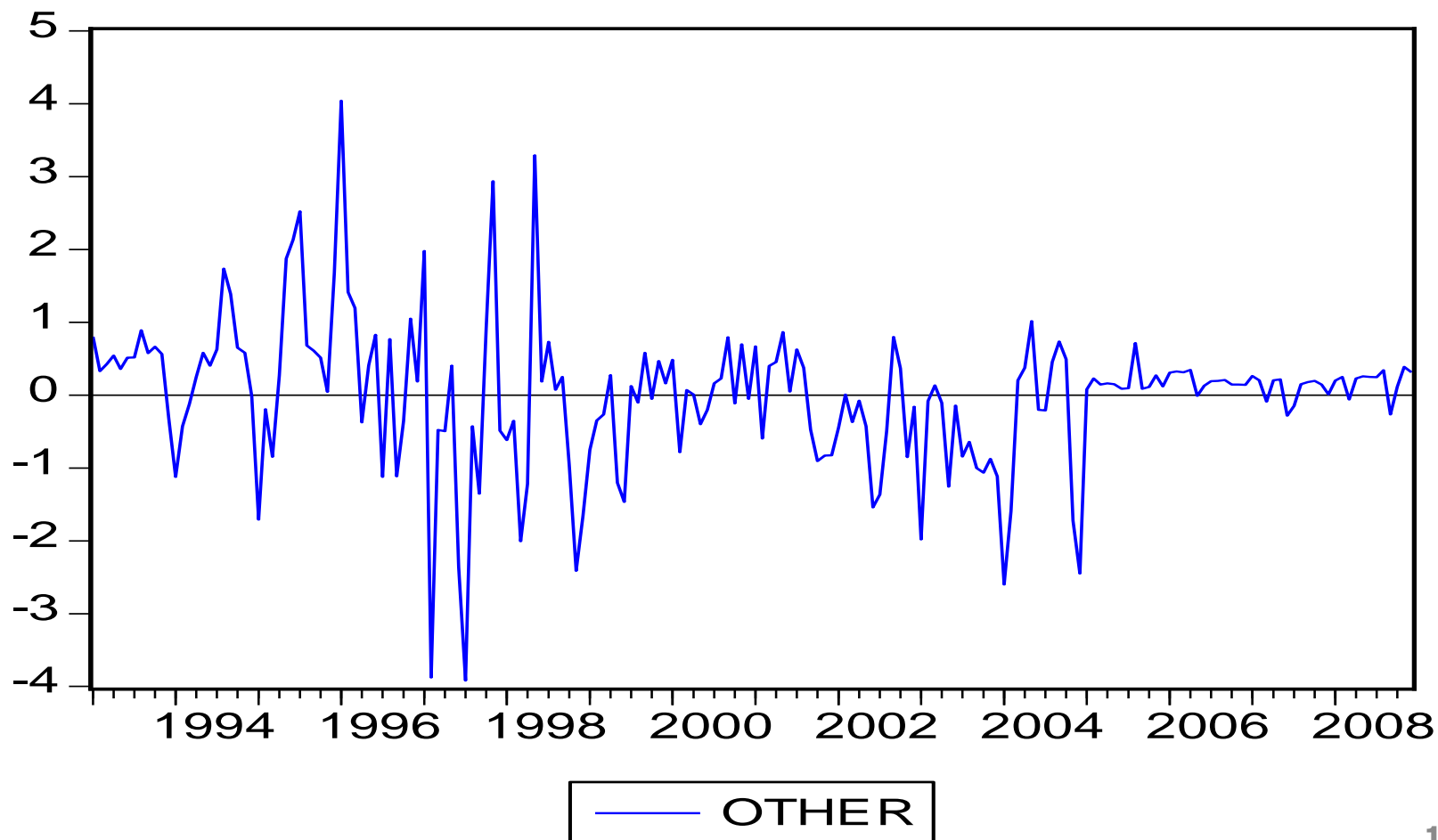
# Determinants of capital inflows: The fundamental equation

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

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

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

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



## 2. Dutch disease

### Adverse consequences of capital inflows

- 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 ( $e^*$ ):

$$e^* = (P_T/P_{NT})$$

# Dutch disease and the erosion of competitiveness:

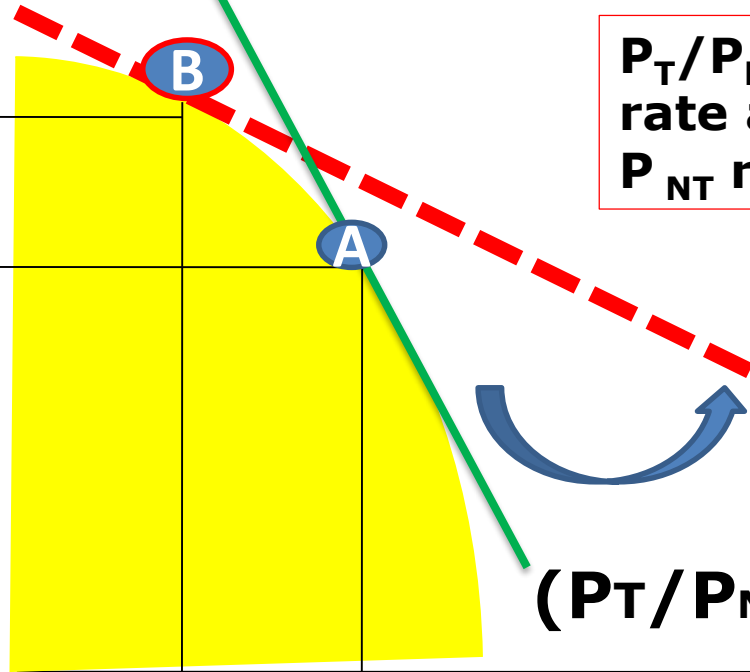
Real exchange rate ( $P_T/P_{NT}$ ) appreciation

*Resources were transferred to the non-traded sector*

$Q_{NT}$

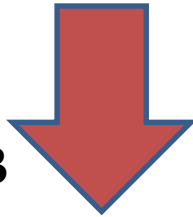
*More resources are allocated to property  
And services sectors*

$P_T/P_{NT}$  falls (real exchange rate appreciation) because  $P_{NT}$  rises faster than  $P_T$



$(P_T/P_{NT})_B$

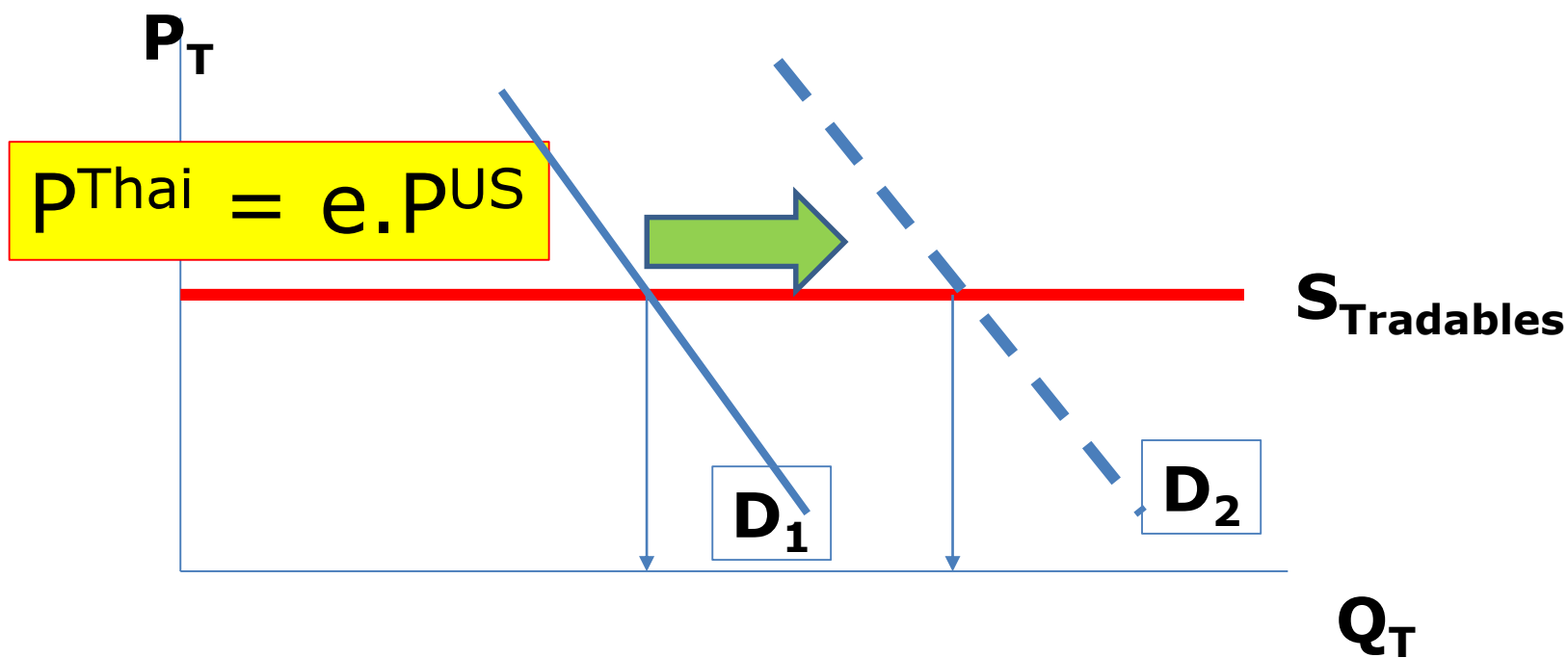
$(P_T/P_{NT})_A$



$Q_T$

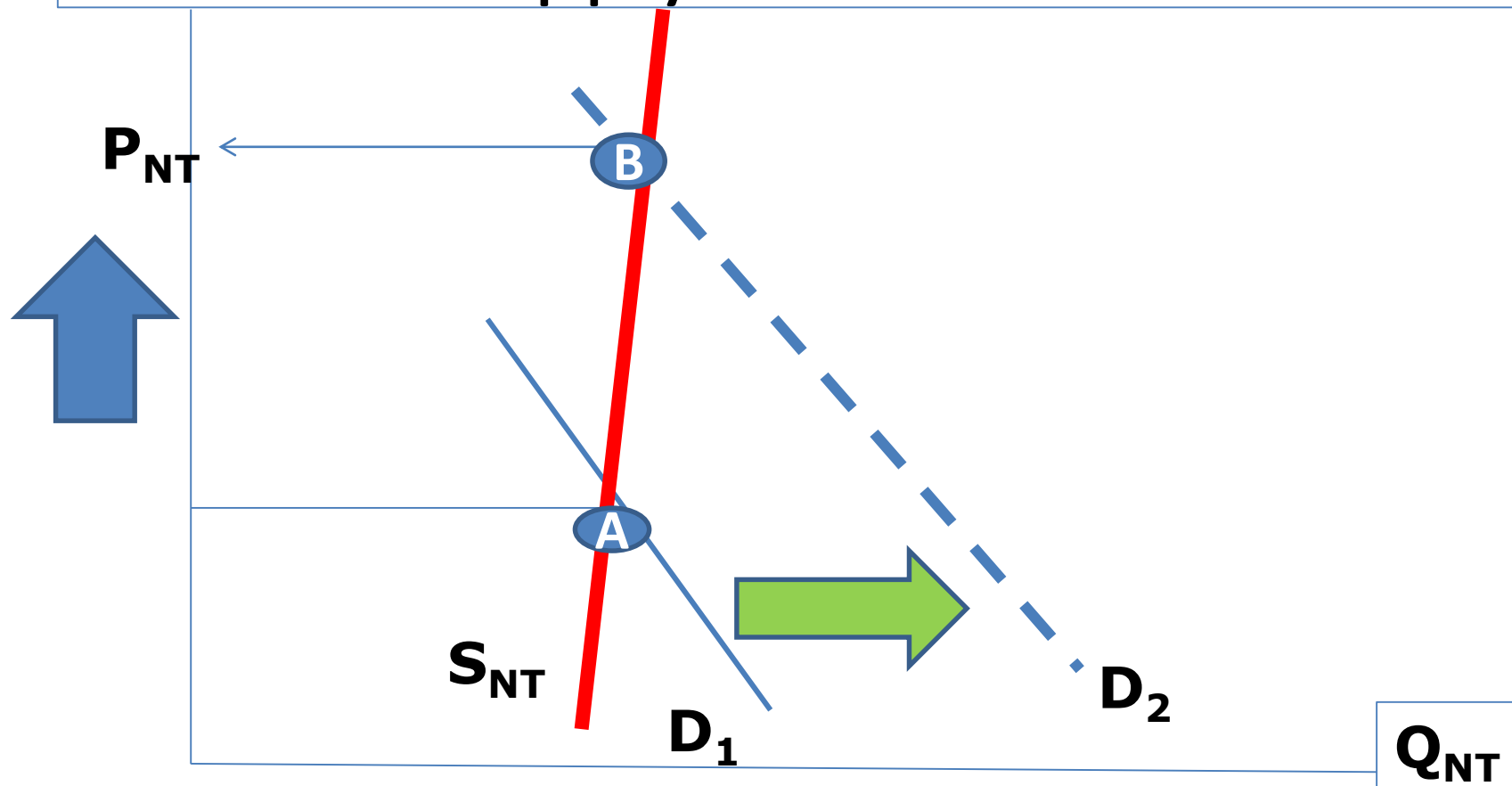
*Less production of exportable and importable goods*

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



*D shifts outward 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



# Approaching the Minsky Moment

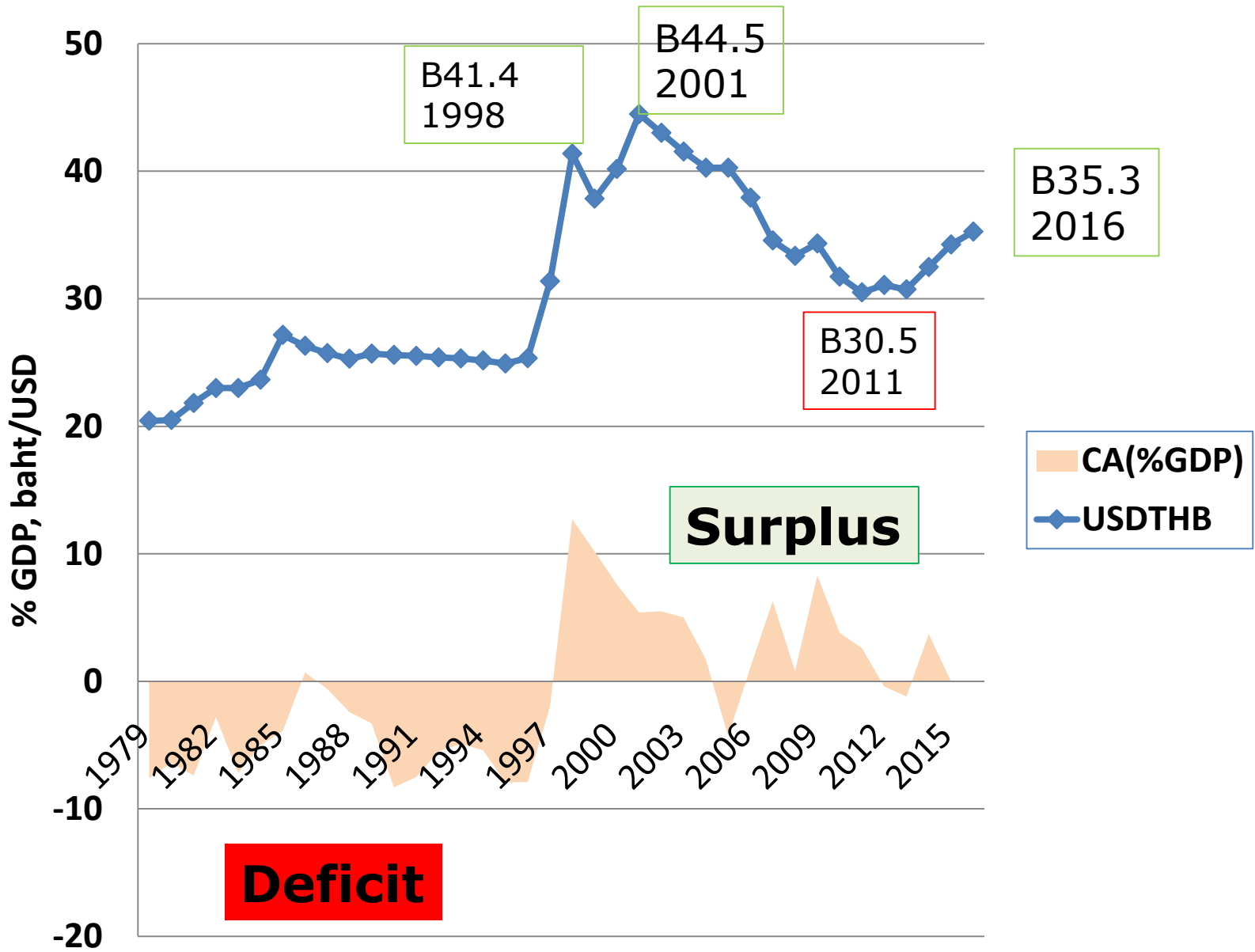
- Notwithstanding the economic slowdown, the stock market and property prices are booming, thanks to capital inflow from other parts of the world.
- One cannot help but ask if Thailand is now slowly approaching the Minsky moment.

# Economic crisis in 1997/98

The reckoning day: July 2, 1997

- With the baht succumbing to speculative attacks, 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



### 3. The monetary approach to the balance of payments

$NFA + CoG + CoF = Cu + \text{Bank Reserves}$

$H = \text{Currency} + \text{Bank reserves}$

$DC = CoG + CoF = \text{Domestic Credit}$

$NFA = H - DC$

H is high-powered money (commercial bank reserves and currency)

$$\Delta NFA = \Delta H - \Delta DC$$

- $\Delta NFA$  is the change in Net Foreign Assets (NFA), which is the balance of payments
- Domestic credit (DC) of the central bank consists of the monetary authority's claims on the public sector (government debt) and loans to the private sector (banks).
- To reduce the balance of payments deficit, or to make  $\Delta NFA > 0$ , domestic credit (DC) extended by the central bank must be curtailed.
- Fiscal austerity must be initiated and maintained so that the claim on government by the central bank is reduced ( $\Delta DC < 0$ ).

## The monetary approach to the balance of payments:

*How to raise the international reserves when the country is experiencing BP deficit*

- $\Delta H > 0$  if the central bank increases the required reserve ratio of commercial banks to raise high-powered money (commercial bank required reserves are the central bank's liabilities)
- Fiscal consolidation and reserve ratio hikes are essential contractionary policy to curtail imports.

# 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 (e.g. Argentina and Turkey in 2018)

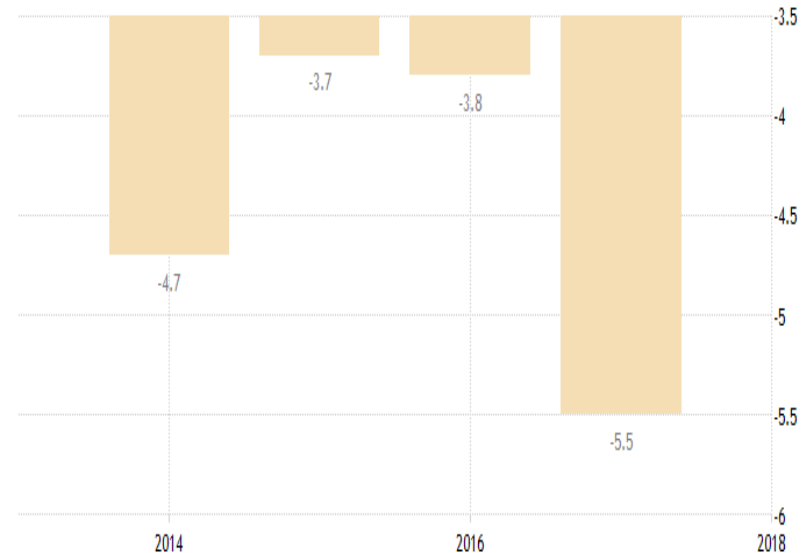
# The IMF prescriptions

## Devaluation of the Turkish Lira



SOURCE: TRADINGECONOMICS.COM | OTC INTERBANK

## Current account (% GD)



SOURCE: TRADINGECONOMICS.COM | CENTRAL BANK OF THE REPUBLIC OF TURKEY

# The lack of policy credibility

During the 1997/98 financial crisis

- Policy credibility is essential for any country that adopts a floating exchange rate regime.
- There were frequent turnovers of the minister of finance and the governor of the Bank of Thailand.
- The lack of institutional independence was evident 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.
- Have we learned anything from the 1998 crisis?

# Central Bank Independence correlates with economic performance

- The Nukul Commission Report viewed that political intervention at the BoT had weakened the ability of the BoT's crisis management.
- **Institution independence** and policy instrument independence are required to create effectiveness of monetary policy.
- A correlation exists between ***central bank independence and price stability***.
- The central bank must earn credibility to make monetary policy credibility.
- Should the BoT be independent of the control of the government?

# Lessons from the currency crisis

- 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 result in slow growth but low foreign debt.
- Capital inflows can exert positive and negative impacts.

# Further 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 to get out of a crisis.
- *If we keep on repeating the same mistake, the lesson is yet to be learned.*

## 4. Implication of the flexible exchange regime

- 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*.

## What is the appropriate level of the baht 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.
- However, the Bank of Thailand cannot lean against the wind of sudden changes the value of the dollar.

# Benefits of a flexible exchange rate

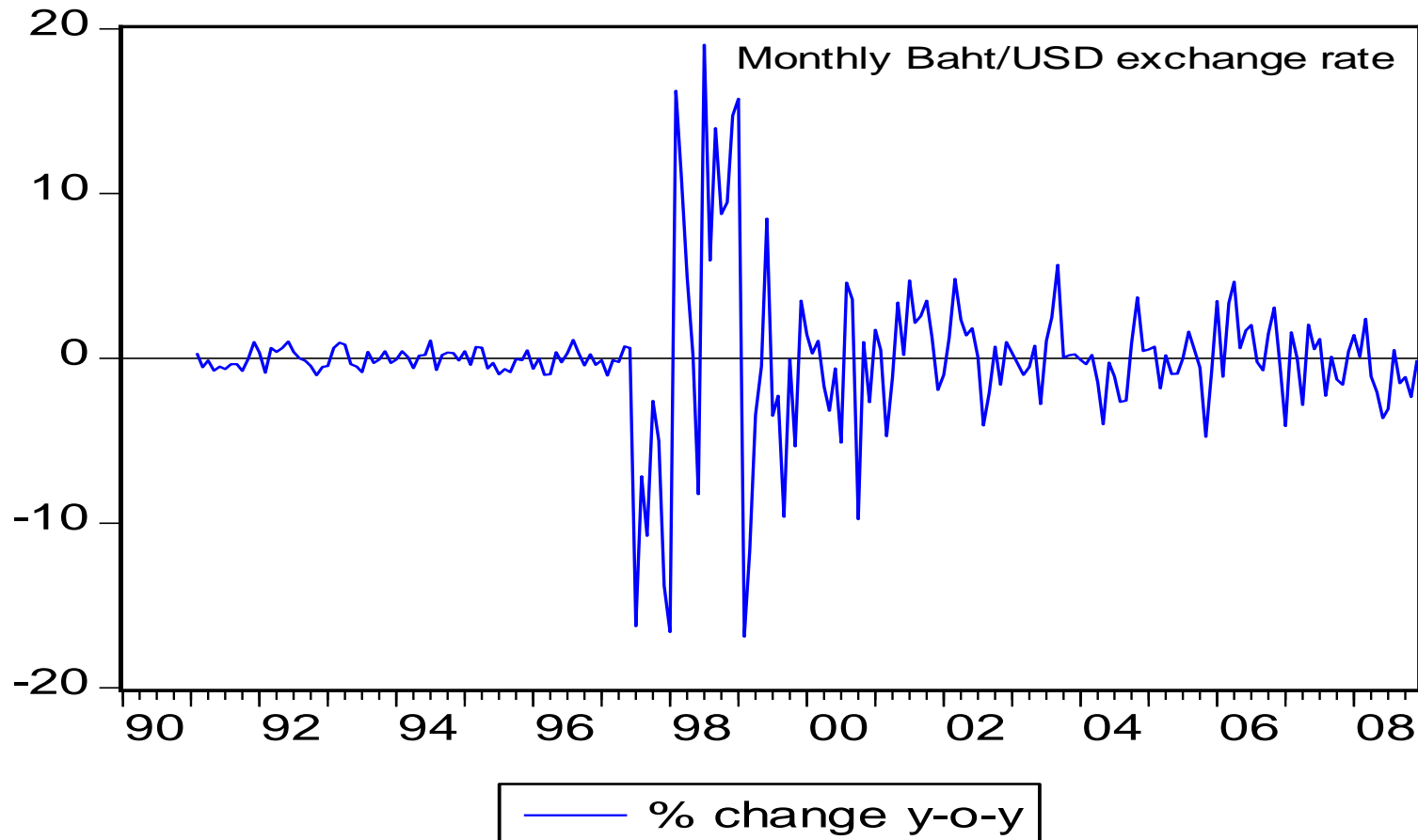
- Flexible exchange rates can *impose discipline* on the government.
- Exchange rate movements trace *the anticipated successes or failures* of the government's economic management.
- *Since the baht is very strong in 2019, does it suggest the strength of the Thai economy?*
- *Capital flight* can be **eliminated** only by the establishment of **sound macroeconomic fundamentals**.
- The rampant hyperinflation in Venezuela was 8,900% in April 2018. Capital flight galore.

# More benefits of a flexible exchange rate regime

## *insulation from external shocks*

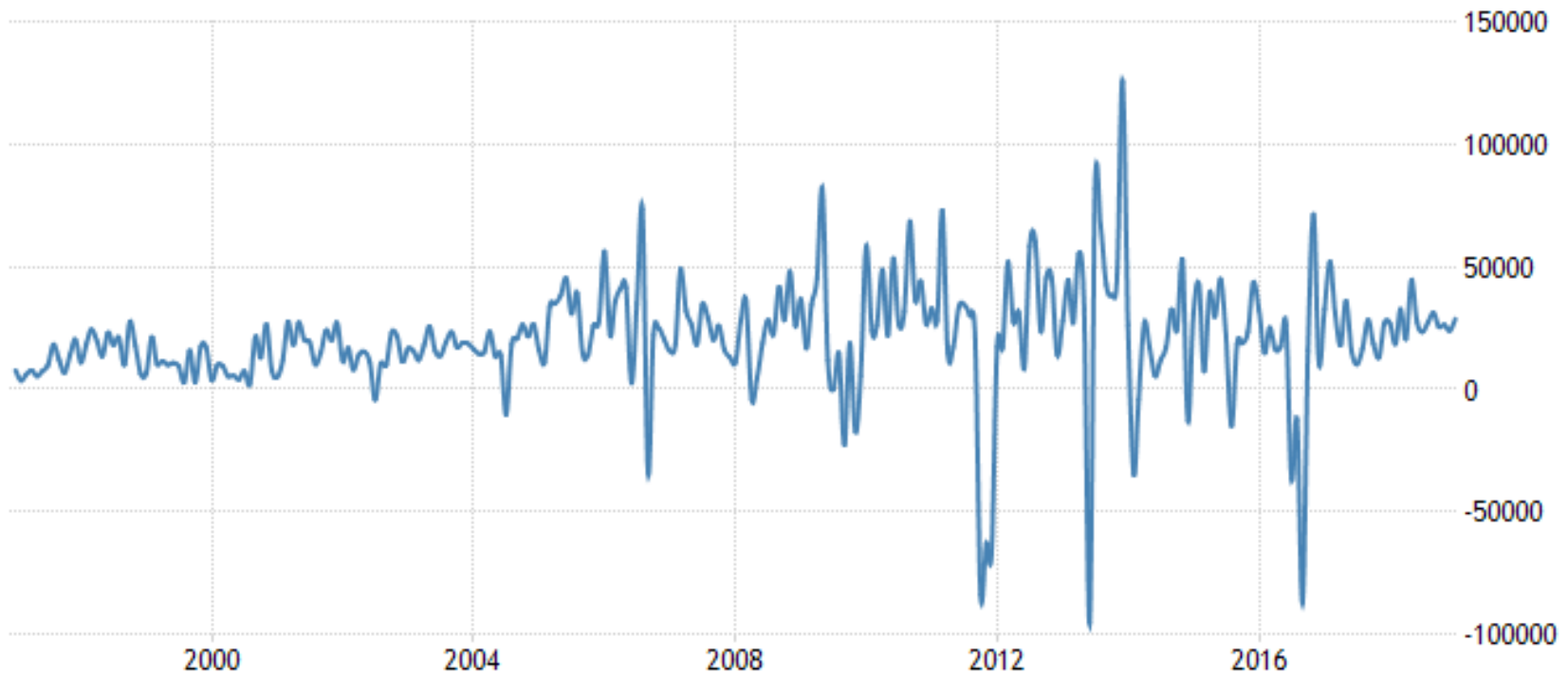
- When imports are highly responsive to changes in absorption and when capital flows do not respond significantly to changes in international rate differentials, both fiscal and monetary policy can play an important stabilizing role.
- The flexible exchange rate is expected to ***insulate*** the economy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

# Flexible exchange rate: Some wiggle room



# More volatility in net FDI

*Can you explain why?*



SOURCE: TRADINGECONOMICS.COM | BANK OF THAILAND

# Currency and banking crises are 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 a normal phase.

# Should the baht be kept undervalued?

How can we tell if the exchange rate is at the optimal level?

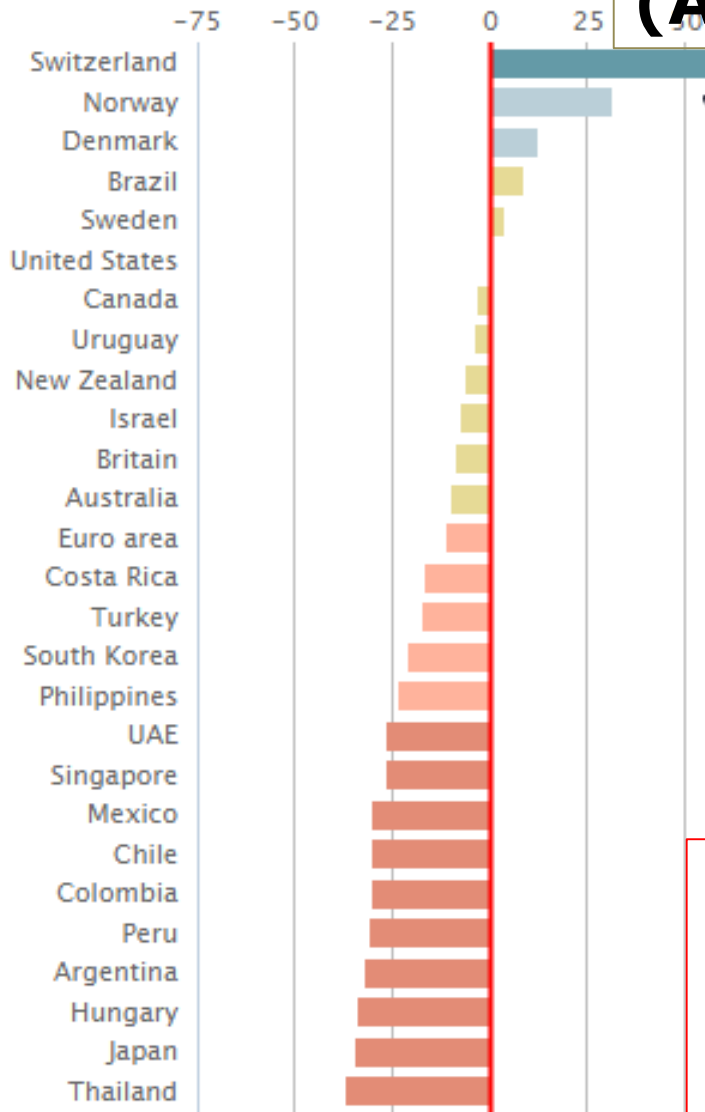
- It is a myth to assume a close link between currency depreciation and international competitiveness.
- Variations in Thailand's export growth can be explained very well by the fluctuation of world income.
- The strength of the US, China, and Japanese economies is closely related to Thailand's export performance.
- Can we come up with the *canary in the coal mine* to tell if our exchange rate is at the dangerous level?
- 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.

# Based on the law of one price (Absolute PPP)

January 2015



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

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

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

$$e = 30.0 \text{ (actual rate)}$$

The actual baht is undervalued by  
 $(e^* - e) / e = 31\%$

Implied exchange rate from the Big Mac PPP: 20.7

Big Mac Price in USA: \$4.79

Price in Thailand: 99 baht

Actual exchange rate: 30 baht/\$

The baht is undervalued by 31%

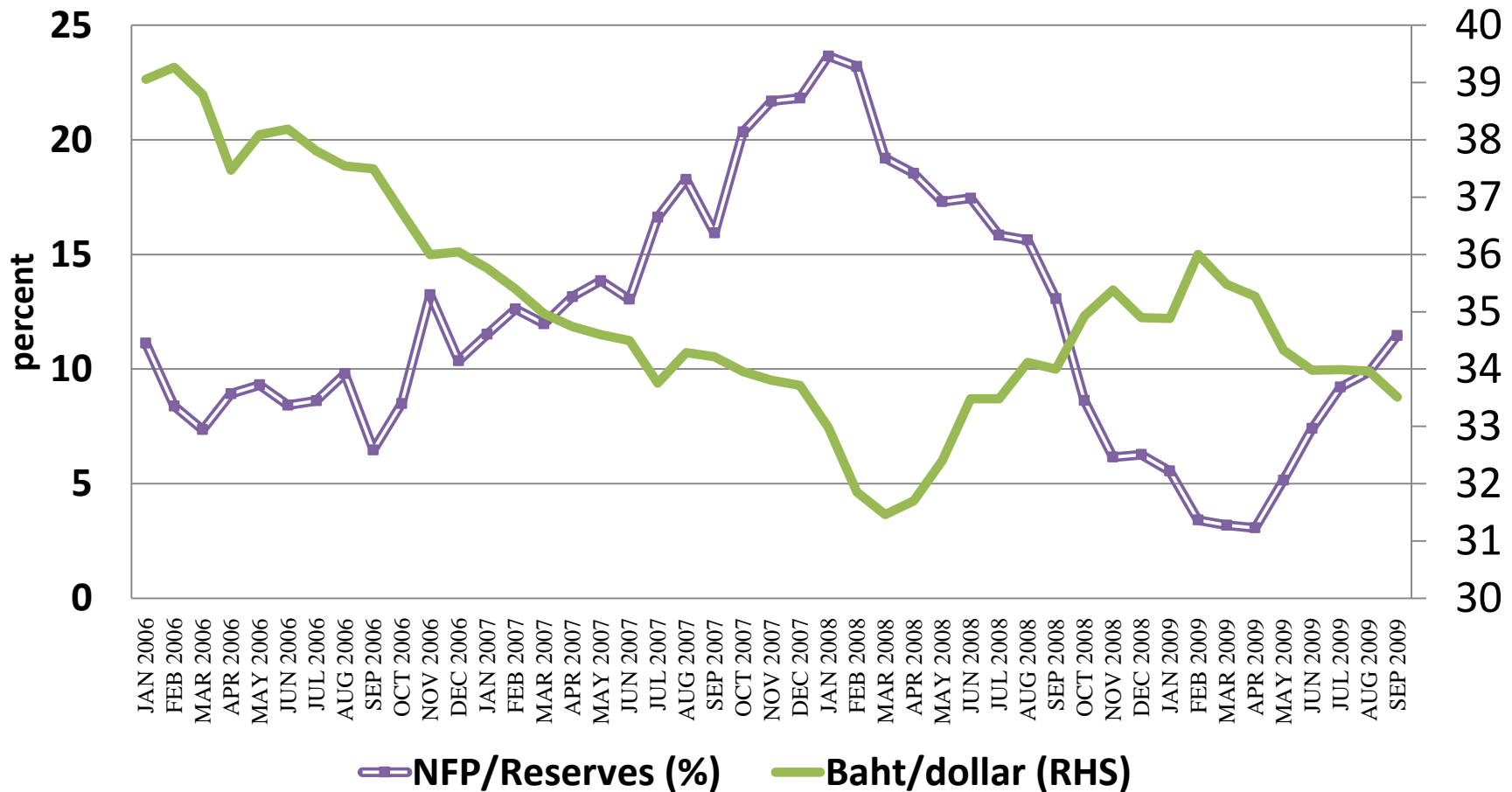
## 5. Fear of Appreciation

### Determinants of the baht-dollar exchange rate

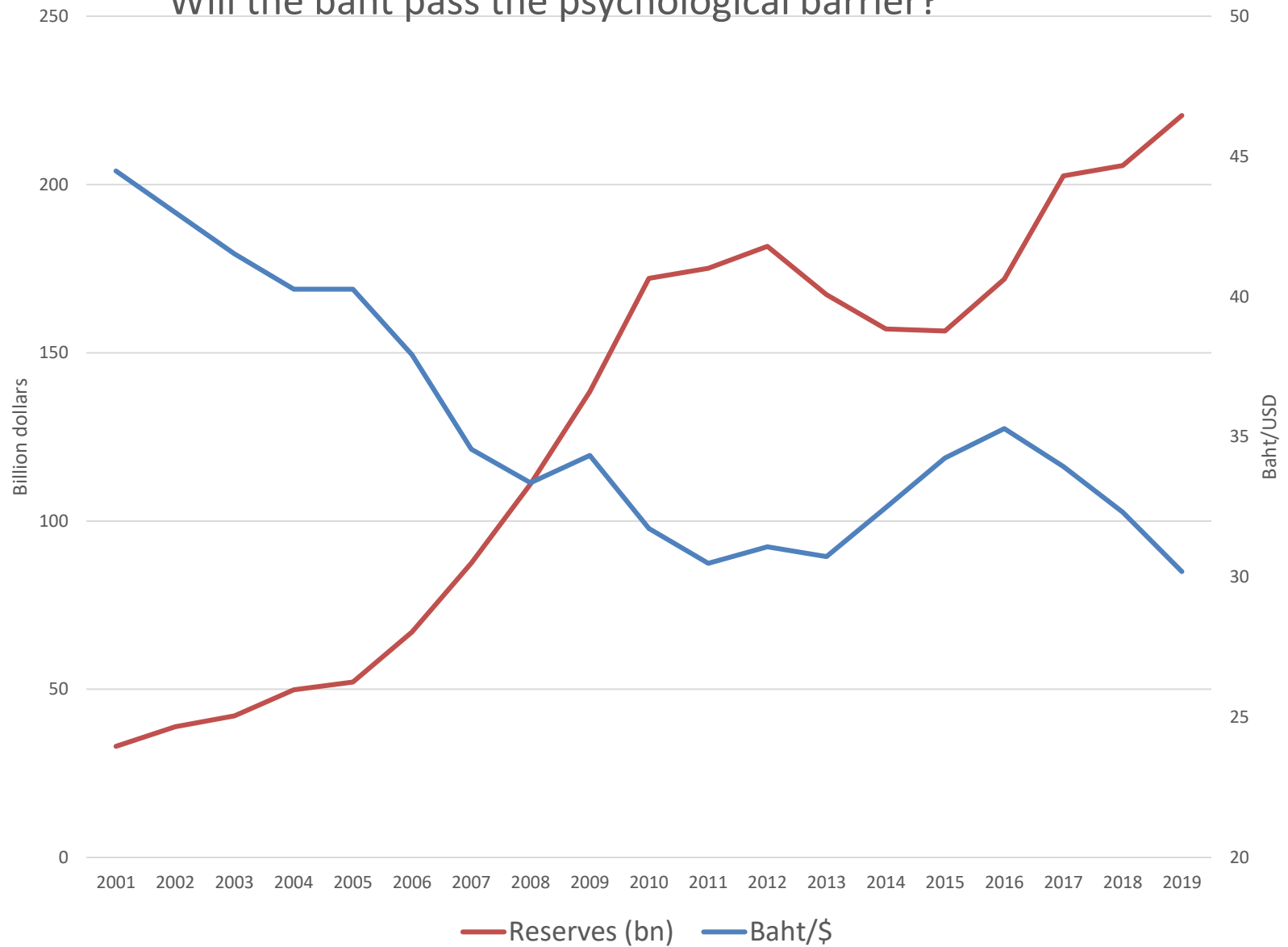
- When the dollar appreciates against major currencies, baht depreciation is a natural consequence.
- The baht move in the opposite direction to the USD.
- Inflation differentials, interest rates, and output growth matter (Remember the fundamental equation of capital inflows?).
- **Should the Bank of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

# Net Forward Position: NFP

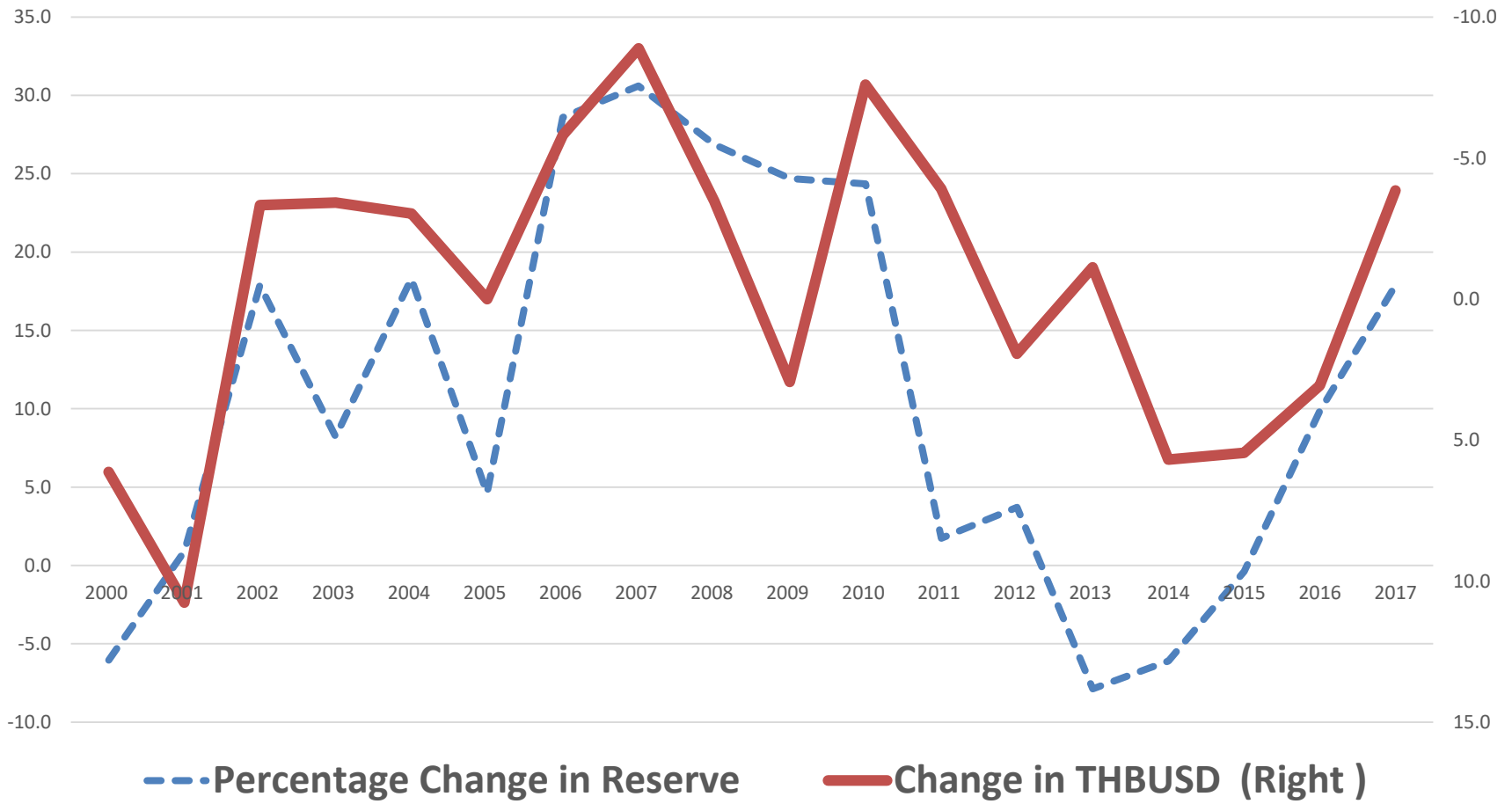
**Buying the dollar forward (selling the baht forward)  
to prevent baht appreciation**



# Will the baht pass the psychological barrier?

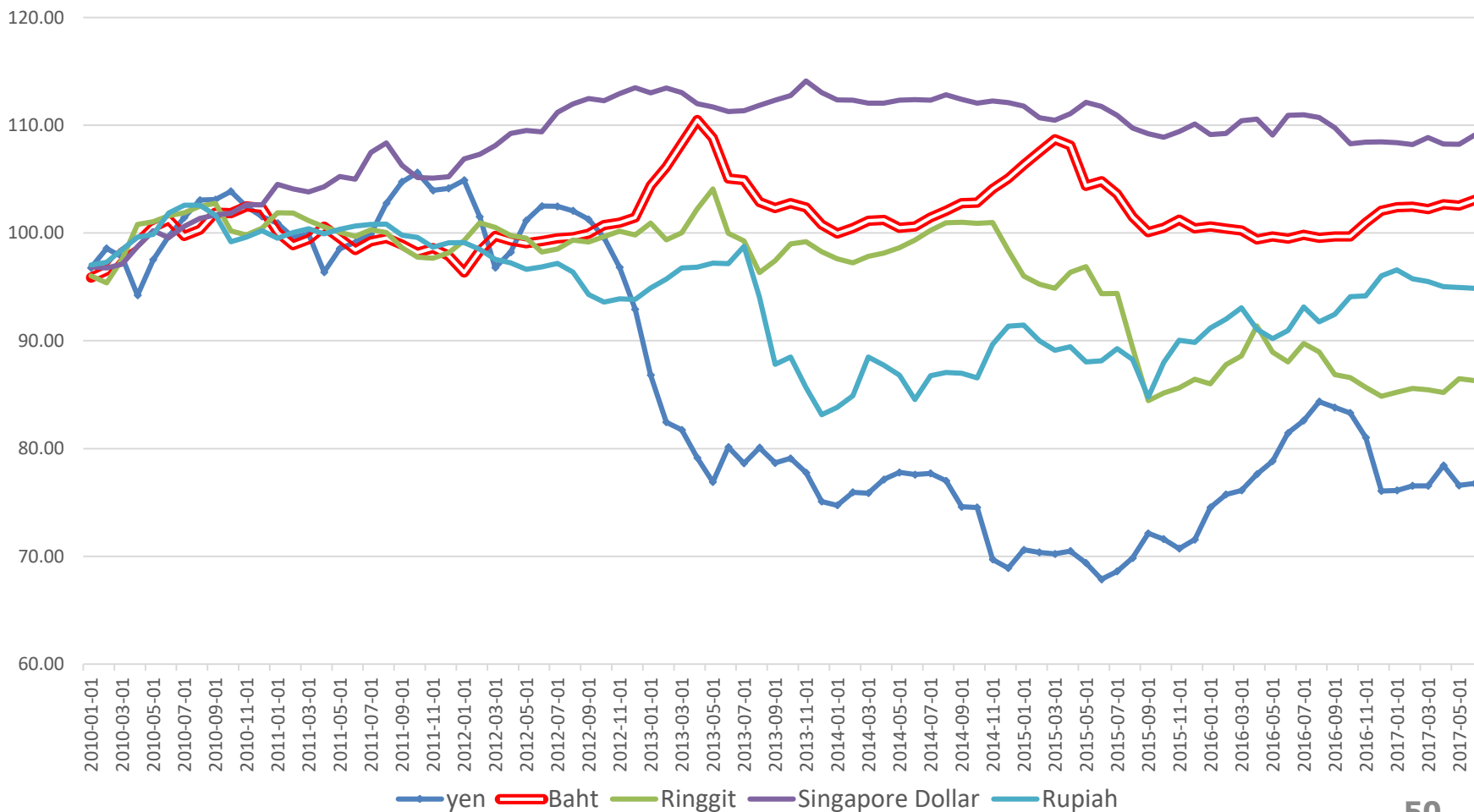


# The BoT buys more dollars when the baht appreciates



# Fear of floating: Keep it steady

Real Board Effective Exchange Rates  
2010-2017



## ***6. currency manipulation***

- Asia is bracing for the latest US Treasury report on foreign currency manipulators, coming in the middle of a trade war that shows no sign of ending.
- The twice-yearly report is due in coming weeks and will likely see the return of Singapore, Malaysia and Vietnam on the watchlist.
- The three Southeast Asian nations were cited in the May report for the first time, and the Treasury says it keeps newcomers on the list for at least two straight reports. China -- which was formally labelled a currency manipulator in August -- Japan and South Korea were the other Asian economies cited at the time.

# Definition of currency manipulators

A country makes it on the watchlist if it's met two of three criteria:

- (1) a trade surplus with the United States of at least \$20 billion;
- (2) a current-account surplus of a minimum of 2% of gross domestic product; and
- (3) persistent, one-sided intervention in the currency equivalent to 2% of GDP in six months of a year.

# Thailand is uncomfortably close to being placed on the monitoring list

- Thailand, which successfully dodged the watchlist in May's report, could find itself in the crosshairs this time as its trade surplus with the US in the 12 months through August nears \$20 billion and its current account surplus remains above the 2% threshold.

# Conclusion

- 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 failure: utilizing public spending to restore confidence
- Transparency to establish confidence and cooperation between the 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 weakness.
- What does the lesson from the 1997 currency crisis tell us about Thailand's exchange rate policy in 2019?