Thailand's Exchange Rate Policy: lessons from the past

Bhanupong

Lecture 22

Course Syllabus
Lecture 22

- **Exchange rate policy, capital controls, and the stock market**
- To what extent that growth of exports depends on weak currency?
- Intervention in the foreign exchange markets is ineffective, because the baht/dollar exchange rate is dictated by the weakening dollar and short-term capital flows into asset markets.
- What were consequences of the capital control imposed in 2006?

Key words

1. The real exchange rate
2. The Dutch Disease
3. Effective Exchange Rates: Real and Nominal
4. Monetary Approach to the Balance of Payments
5. Implications of a flexible exchange rate regime
6. Fear of appreciation

1. Two Definitions of the real exchange rates
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's price levels

Gain in competitiveness

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

Effective Exchange Rates: A Weighted Average of bilateral exchange rates between the baht and other currencies

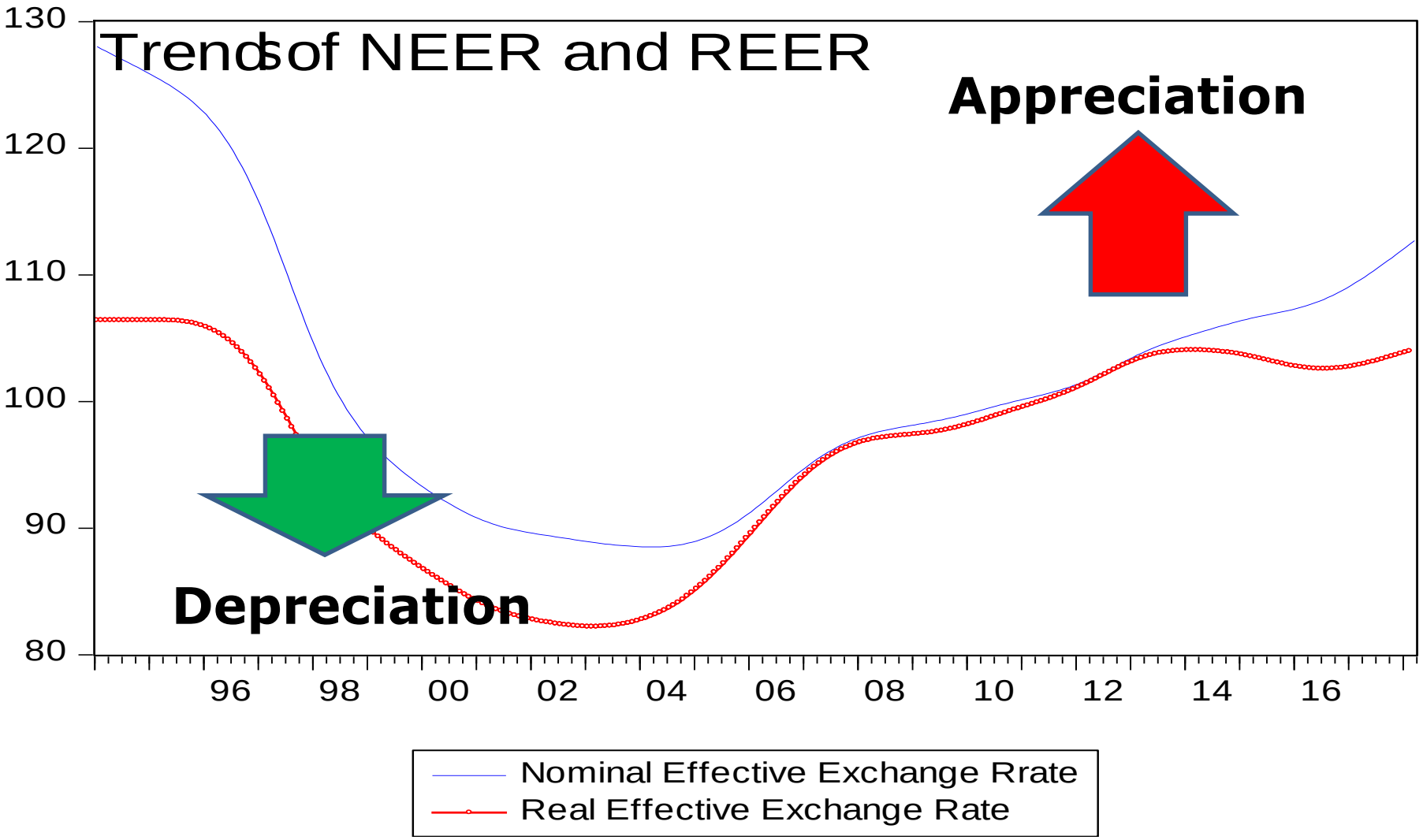
Nominal and Real Effective Exchange rates: NEER vs REER

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

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

$$+\theta_4(B/S)(\frac{P^S}{P^T}) + \ldots$$

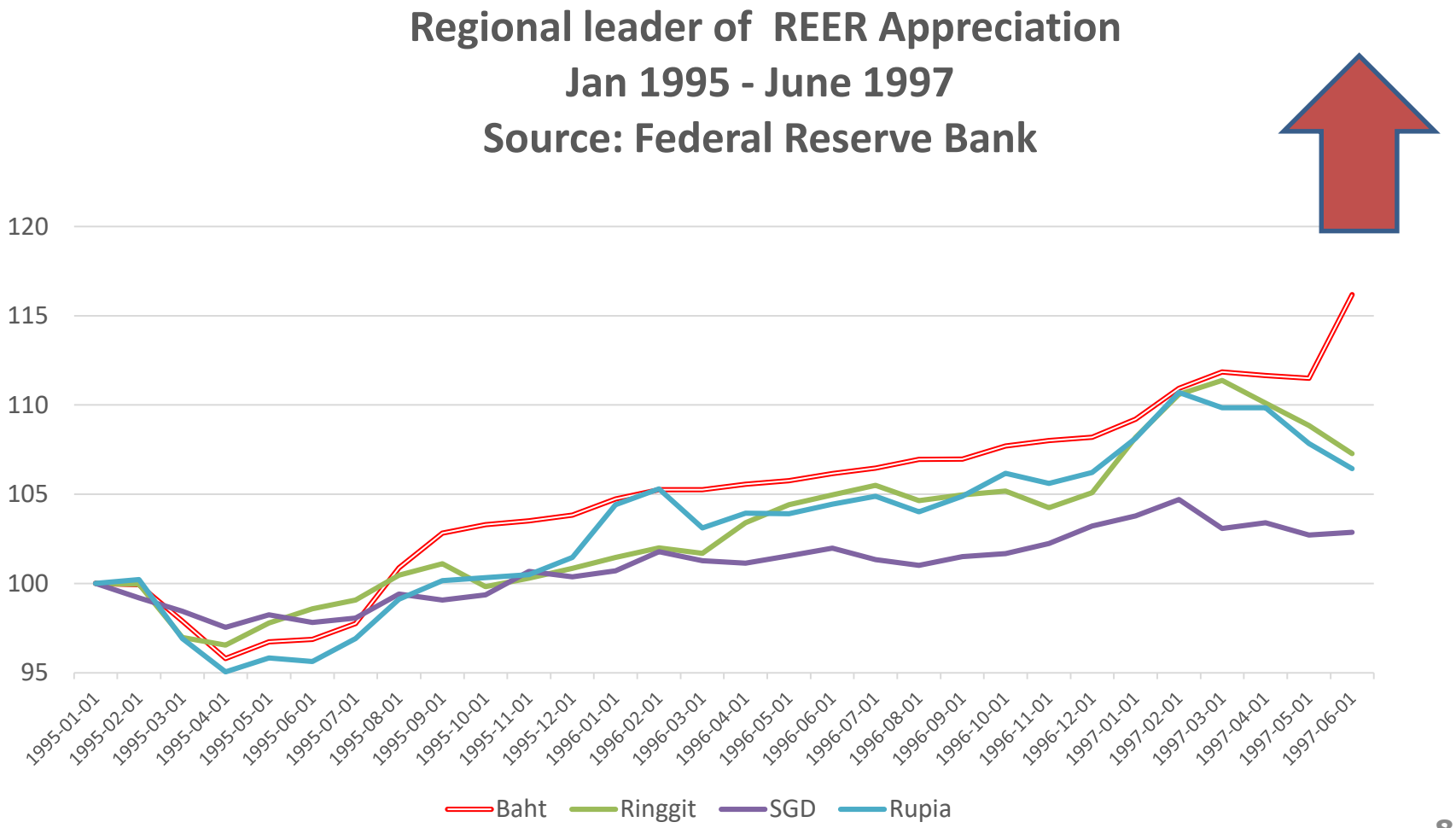
+ RMB



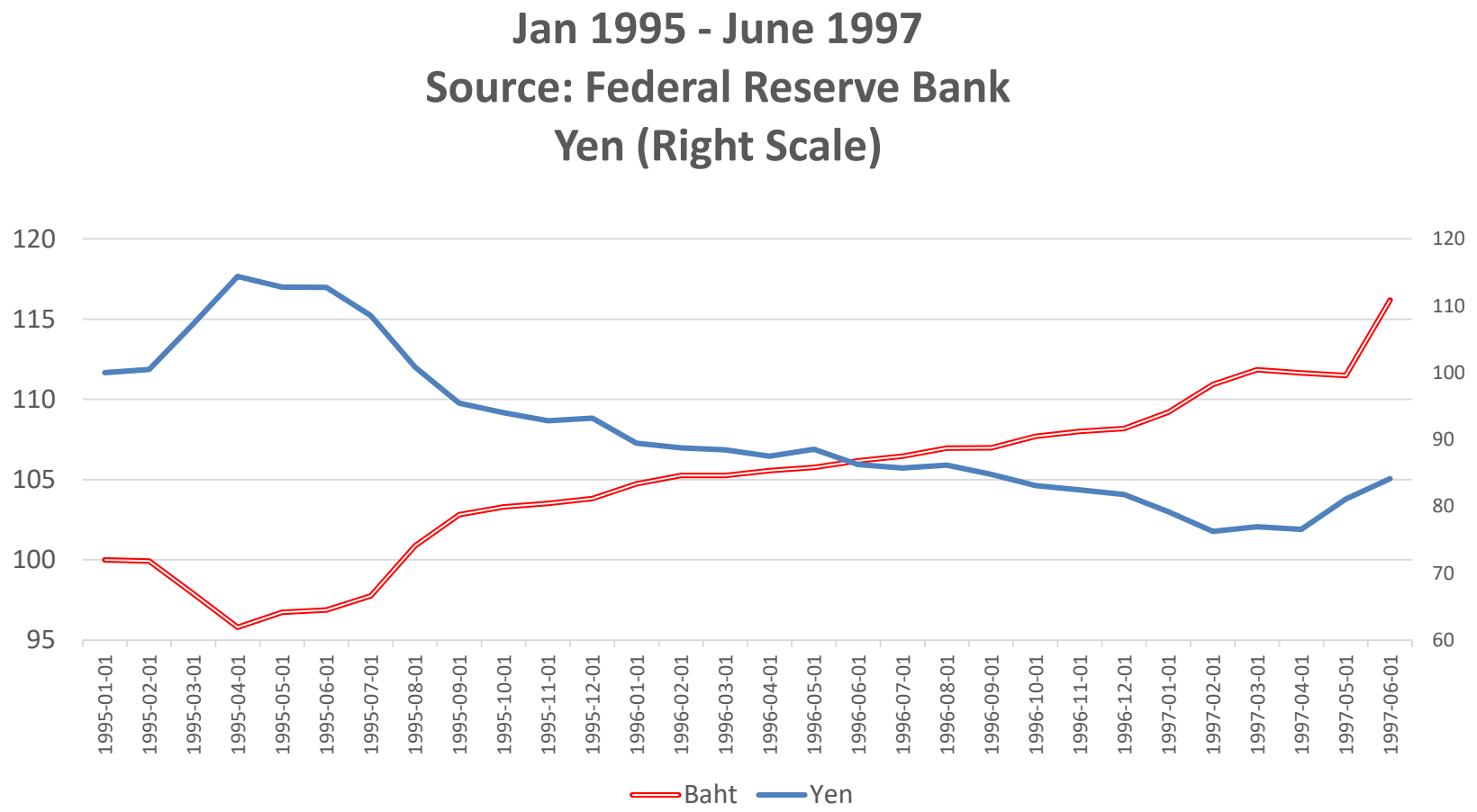
Thailand's inflation rate is lower than trading partners': REER appreciates less than NEER

Since 2002, exchange rate competitiveness has eroded

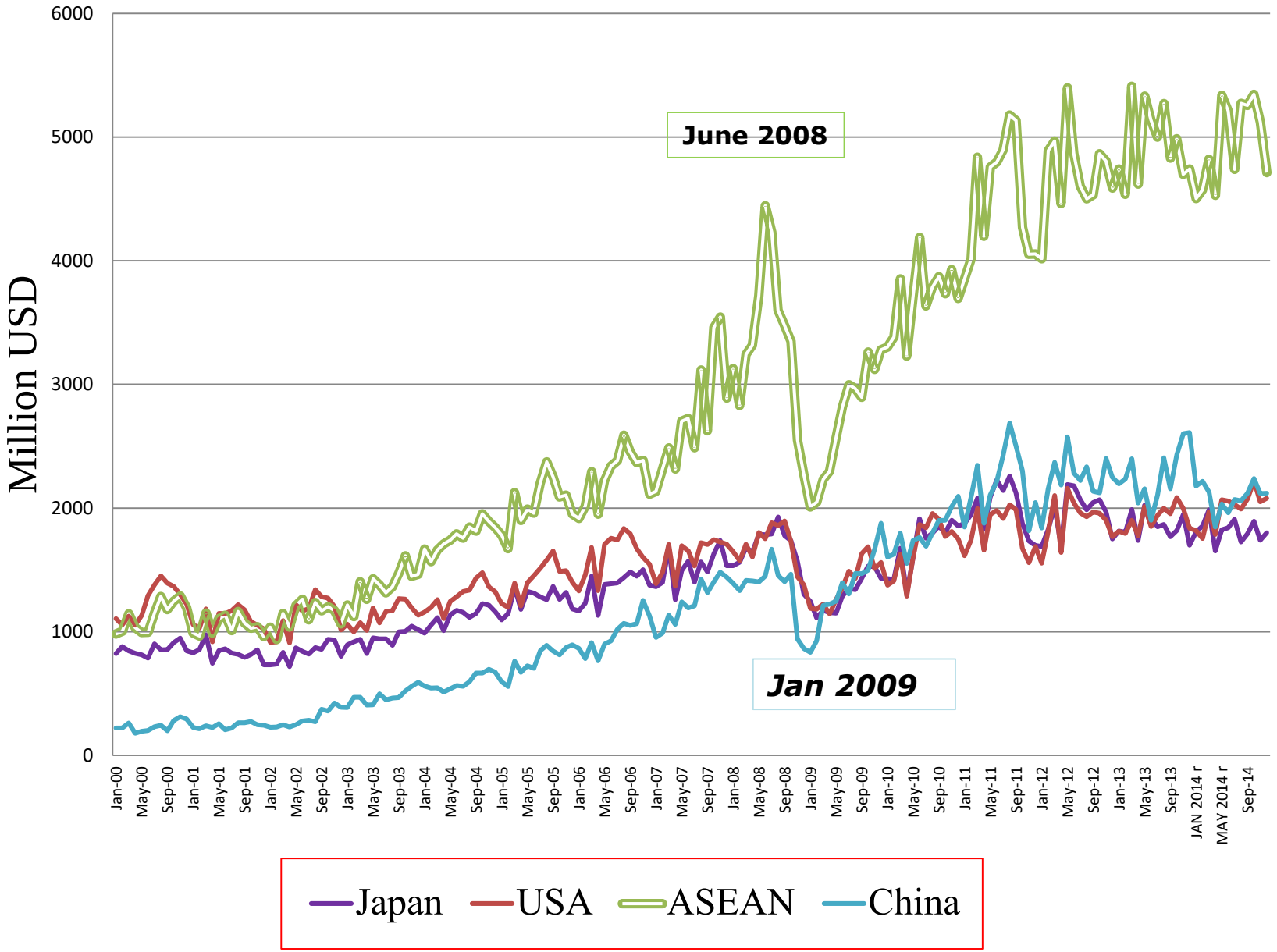
The loss of exchange rate competitiveness leading to the culmination of the crisis in July 1997



Baht appreciation, the yen depreciation prior to July 1997



Thailand's major export destinations: weights in the Effective Exchange Rate (EER)

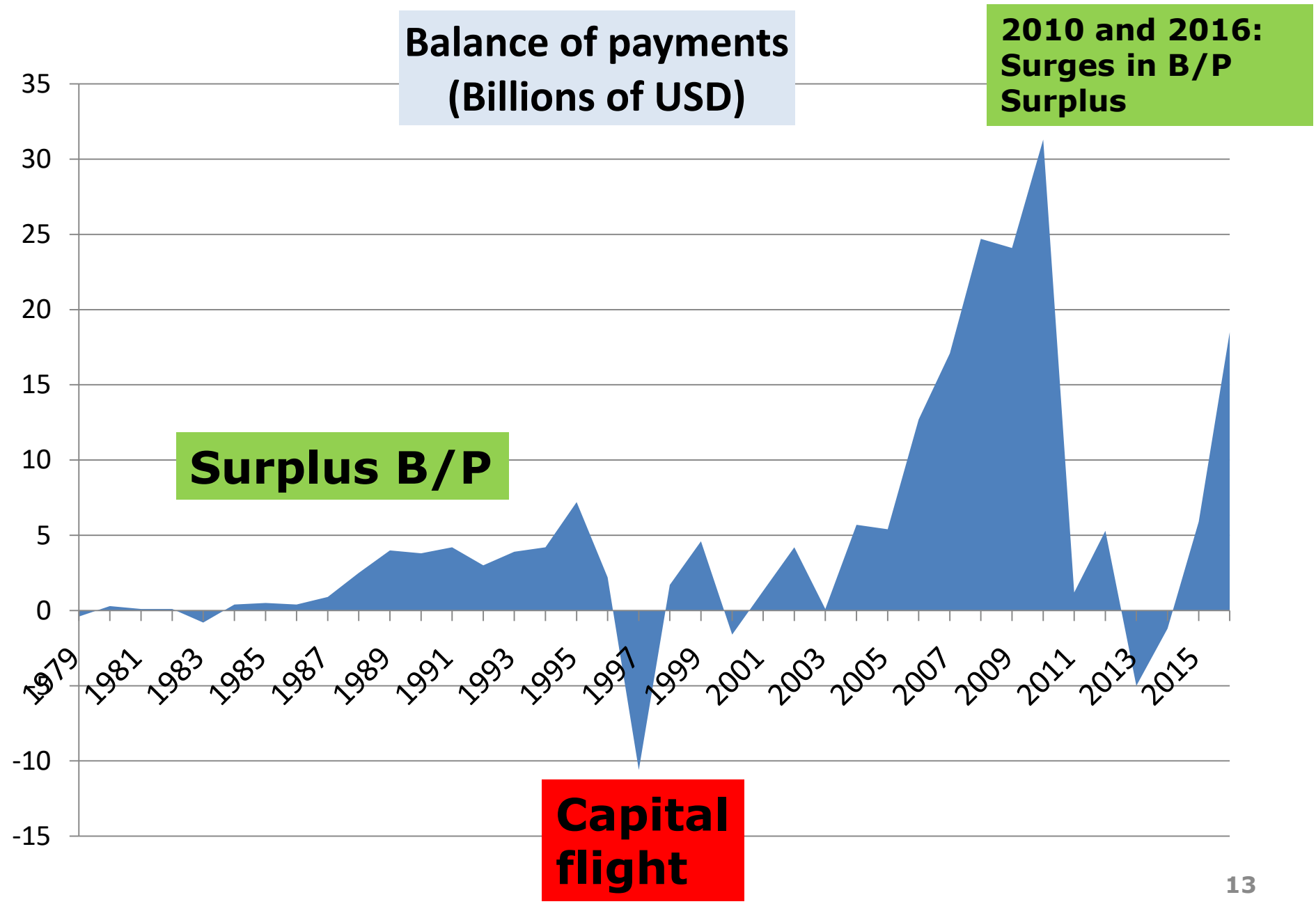


The fixed exchange rate system prior to the 1997 crisis

- Volatility in exchange rates creates risks and uncertainties in trade and investment.
- This 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 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 balance of payments and current account deficit.
- *Why deficit current account?*


Balance of payments
(Billions of USD)
2010 and 2016:
Surges in B/P
Surplus
Surplus B/P
Capital
flight
35
30
25
20
15
10
5
0
-10
-15
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015

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 undertaken to establish Thailand as a regional financial sector induced short-term capital flows though offshore borrowings by the nonbank private sector.
- Recall *push factors vs. pull factors*..

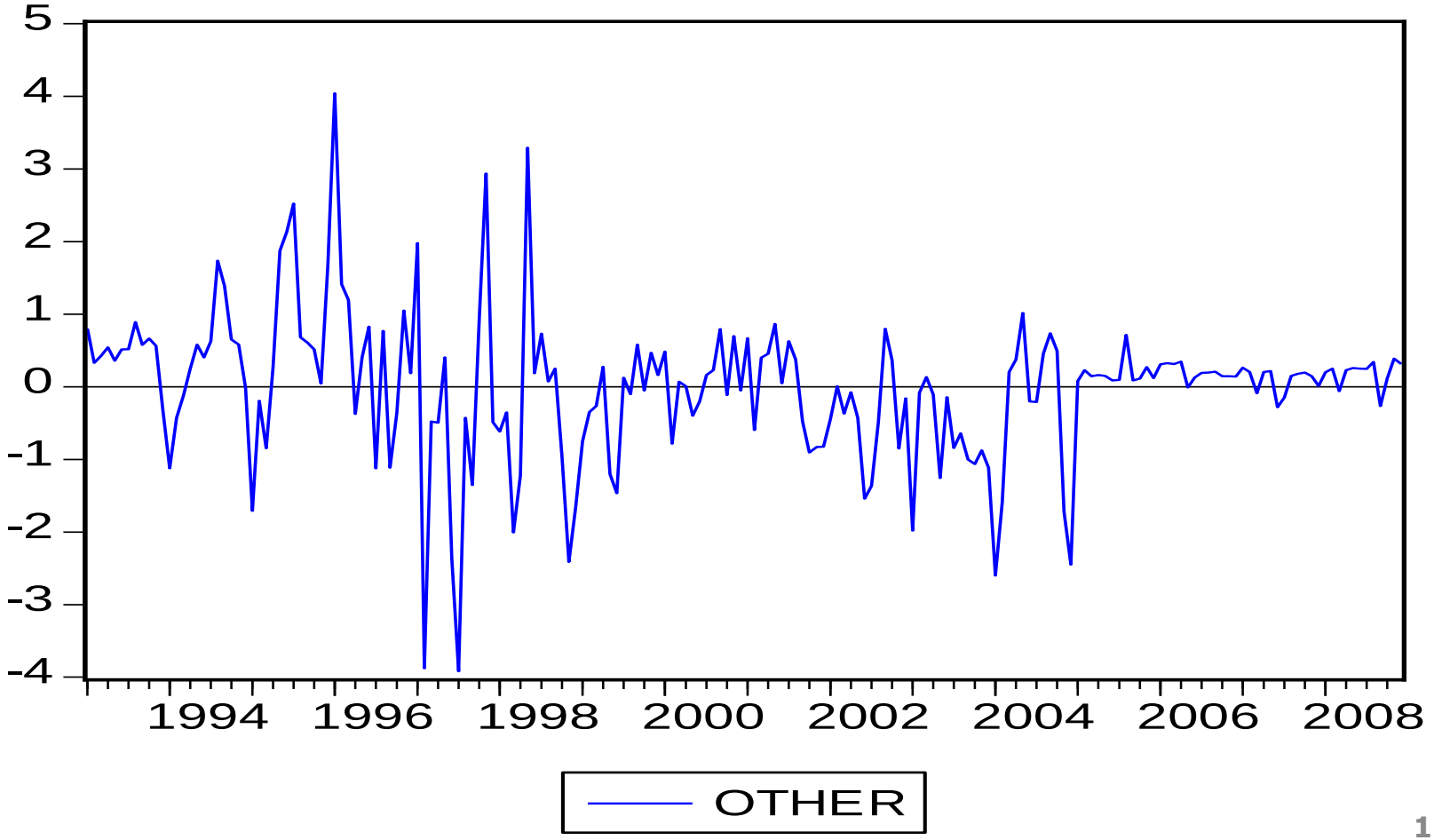
Determinants of capital inflows: The fundamental equation

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

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

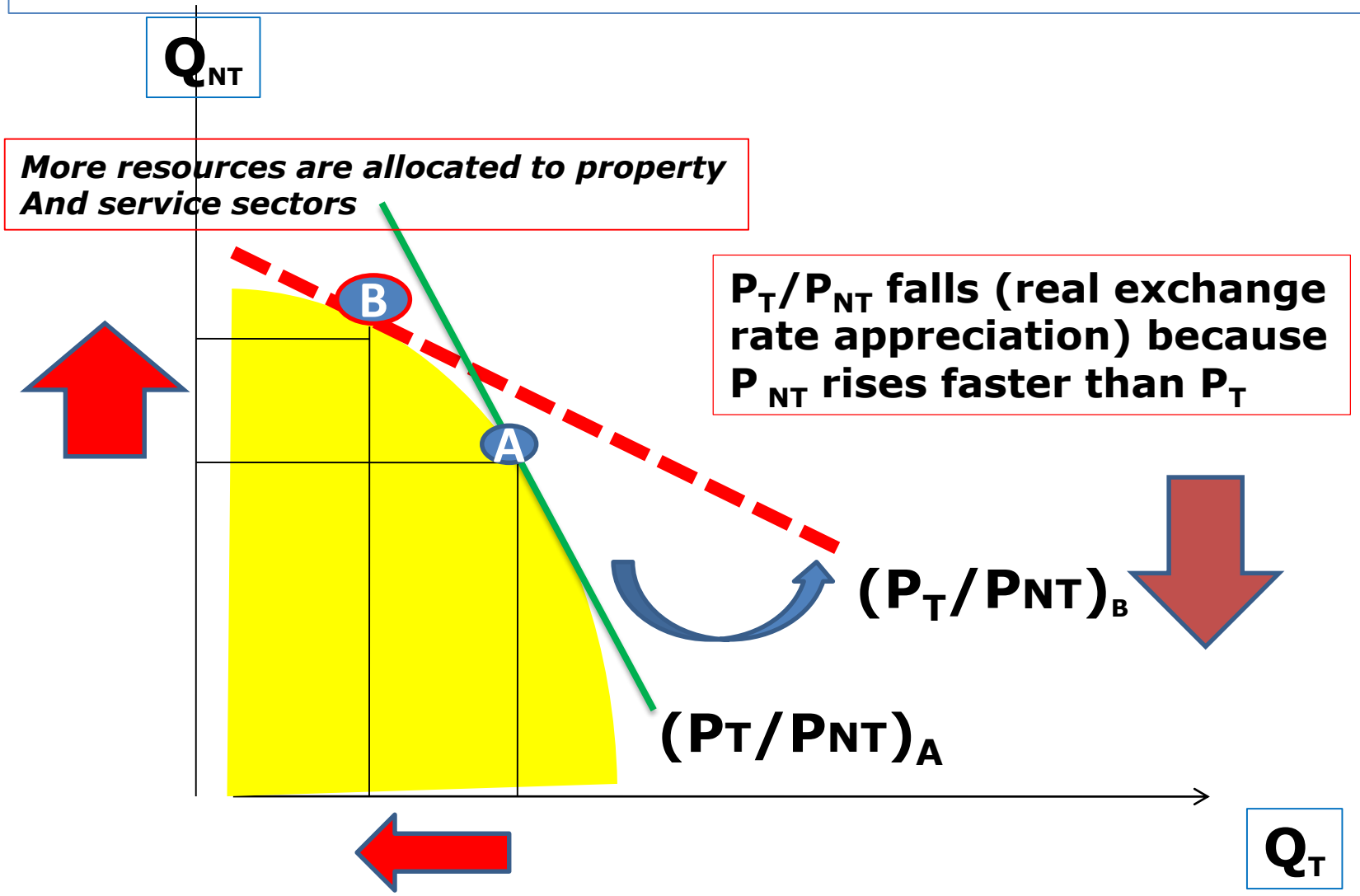
- The surge in capital flows led to the so-called "Dutch disease" which results in the appreciation of the real exchange rate and a consequent reduction in external competitiveness.
- In the Dutch disease, the current account deficit worsens since the price of non-traded goods rises faster than that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

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

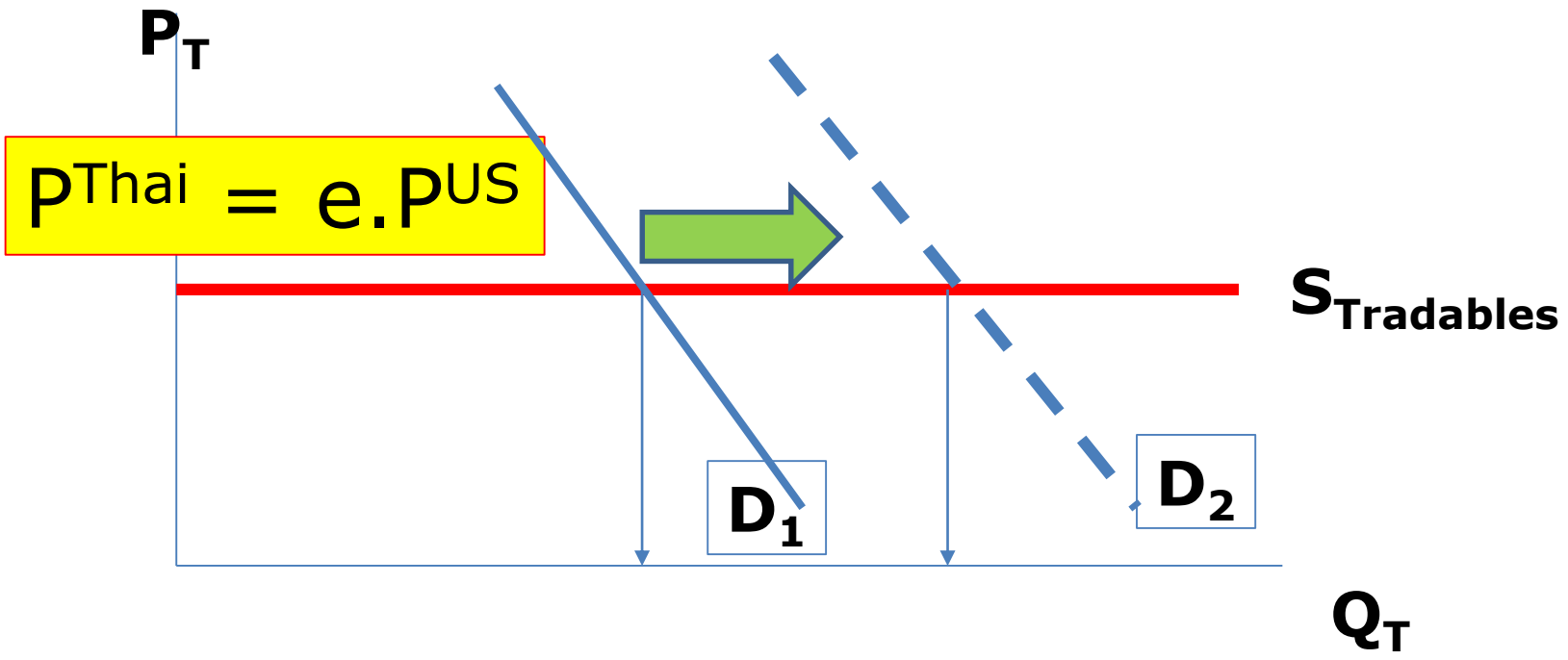
Dutch disease and the erosion of competitiveness:

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

Resources were transferred to the non-traded sector

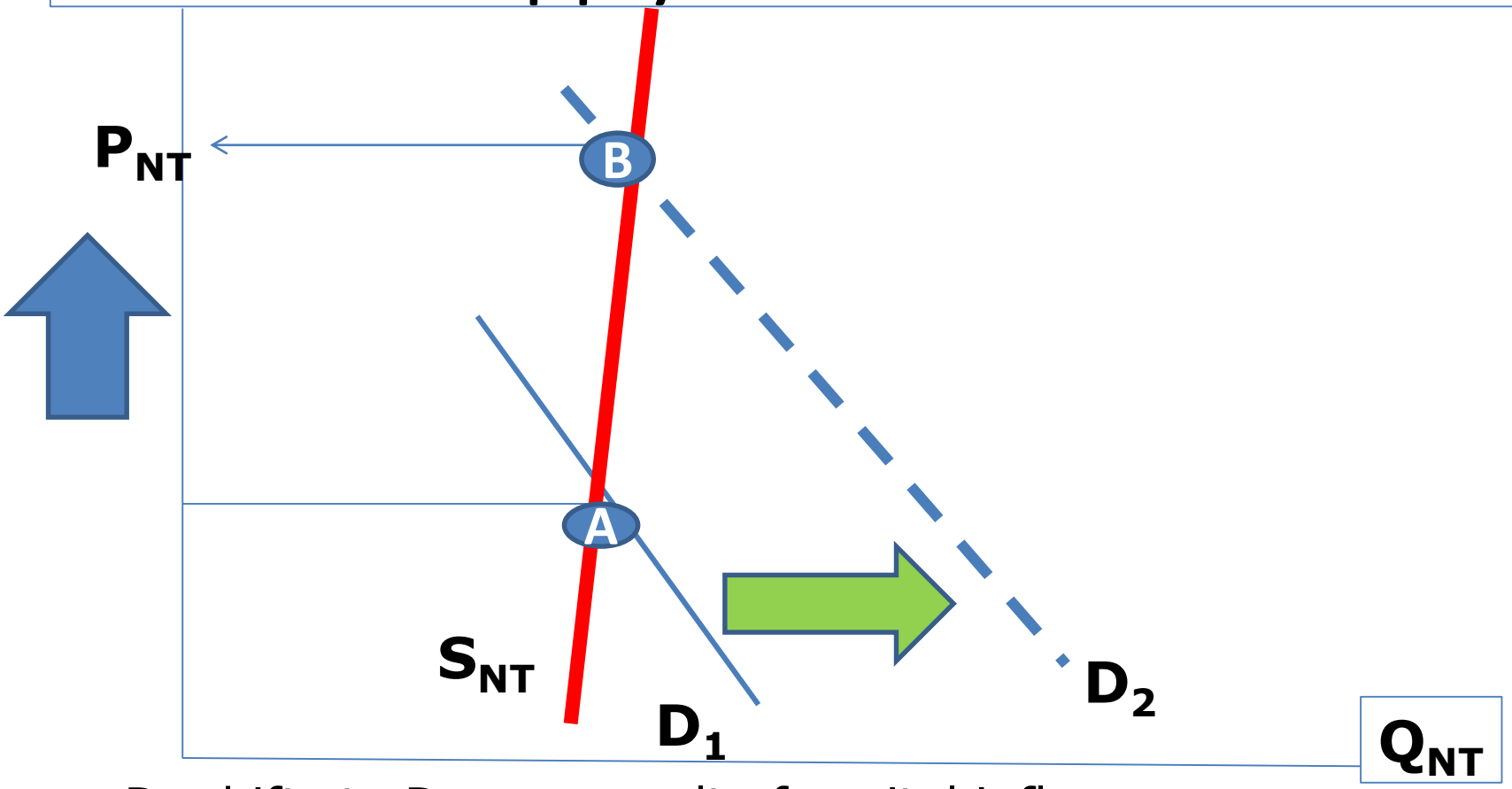


In the traded sector, where the **Law of One Price** rules: supply is infinitely elastic, because its price is determined in the world markets (USA and China)



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

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

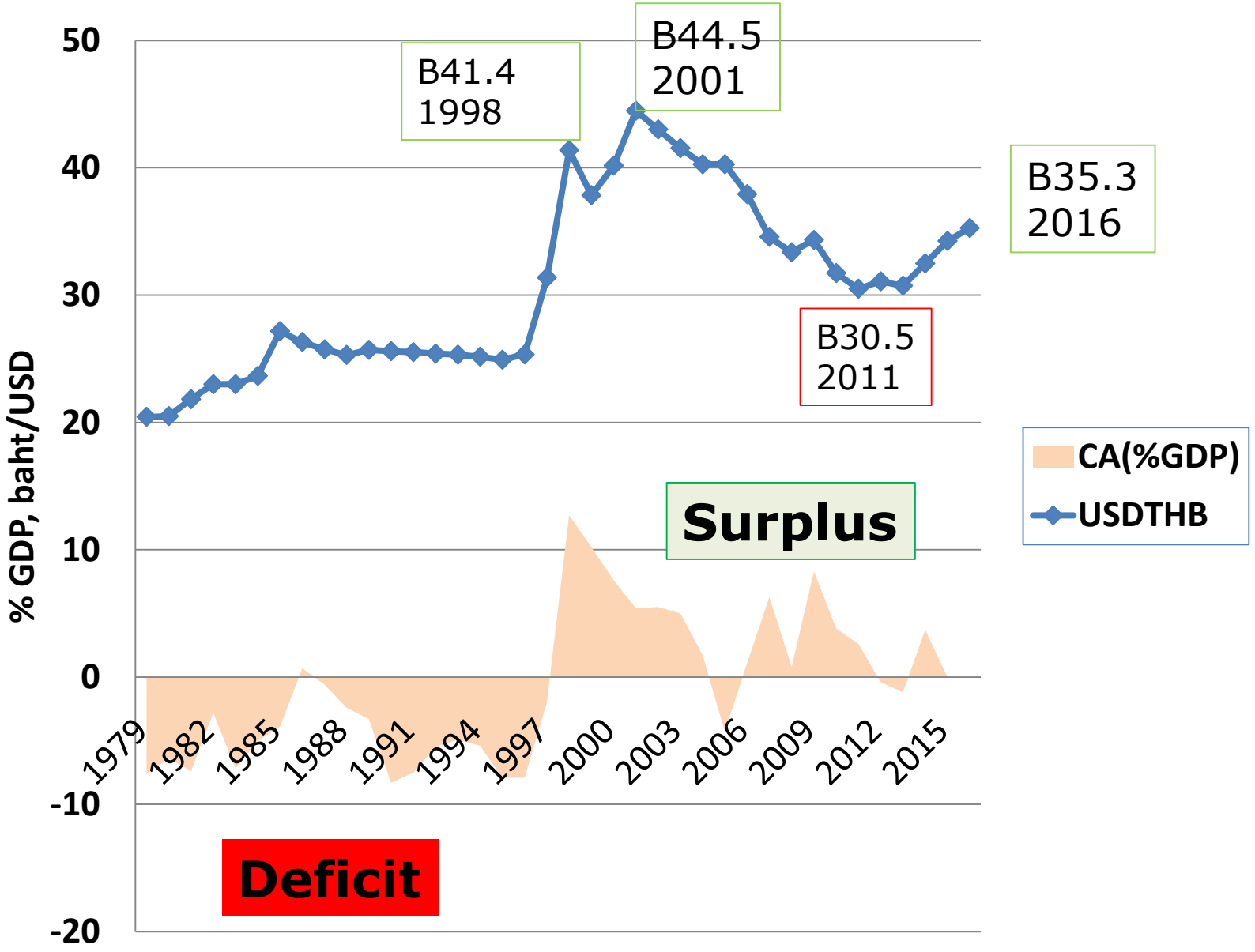


D_1 shifts to D_2 as a result of capital inflows
P_{NT} increases: Hence, (P_T/P_{NT}) rises
Real exchange rate (e*) appreciates: loss of International competitiveness

Economic crisis 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



The monetary approach to the balance of payments

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

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

The monetary approach to the balance of payments:
How to raise the international reserves when the country is experiencing BP deficit

- $\Delta NFA = \Delta H - \Delta DC$
- To reduce the balance of payments deficit, or the 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 raises required reserve ratio for commercial banks to raise high power money (commercial bank required reserves)
- *This is essentially a policy of economic contraction so as 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.
- A perfect recipe for economic contraction
- Frequent turnovers of minister of finance and governor of the BoT.

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.
- 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.
- Have we really learned something from the 1998 crisis?

Central Bank Independence correlates with economic performance

- The Nukul Commision 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.
- ***Correlation exists between central bank independence and price stability***.
- To make monetary policy credible, the central bank must earn credibility.
- *Should the BoT be absolutely independent from 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 resulted slow growth but low foreign debt.
- Capital inflows can have positive and negative impacts.

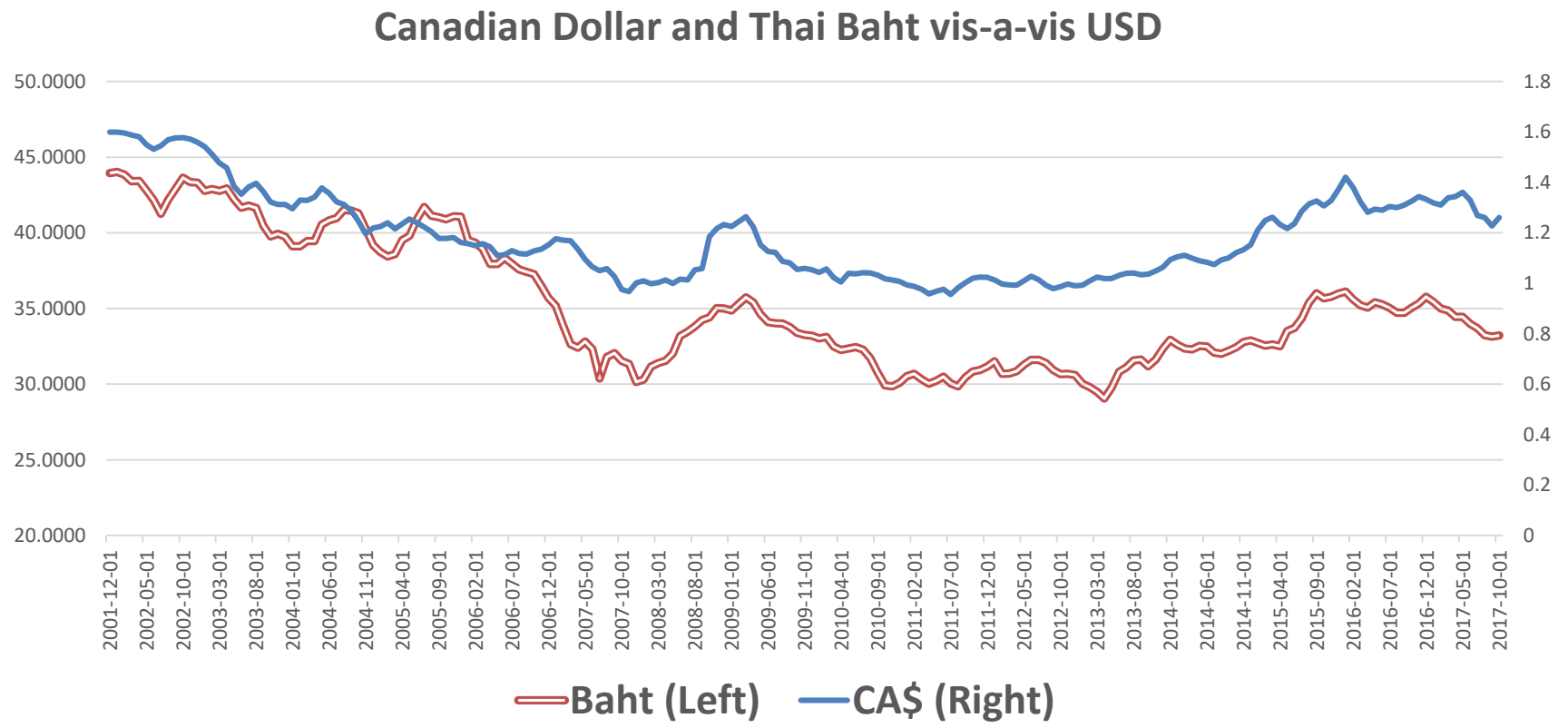
Further Lessons from the currency crisis

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

3. 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.

The Thai Baht and the Canadian Dollar (correlation coefficient: 0. 68)



Source: FRED

What is the appropriate level of the baht exchange rate?

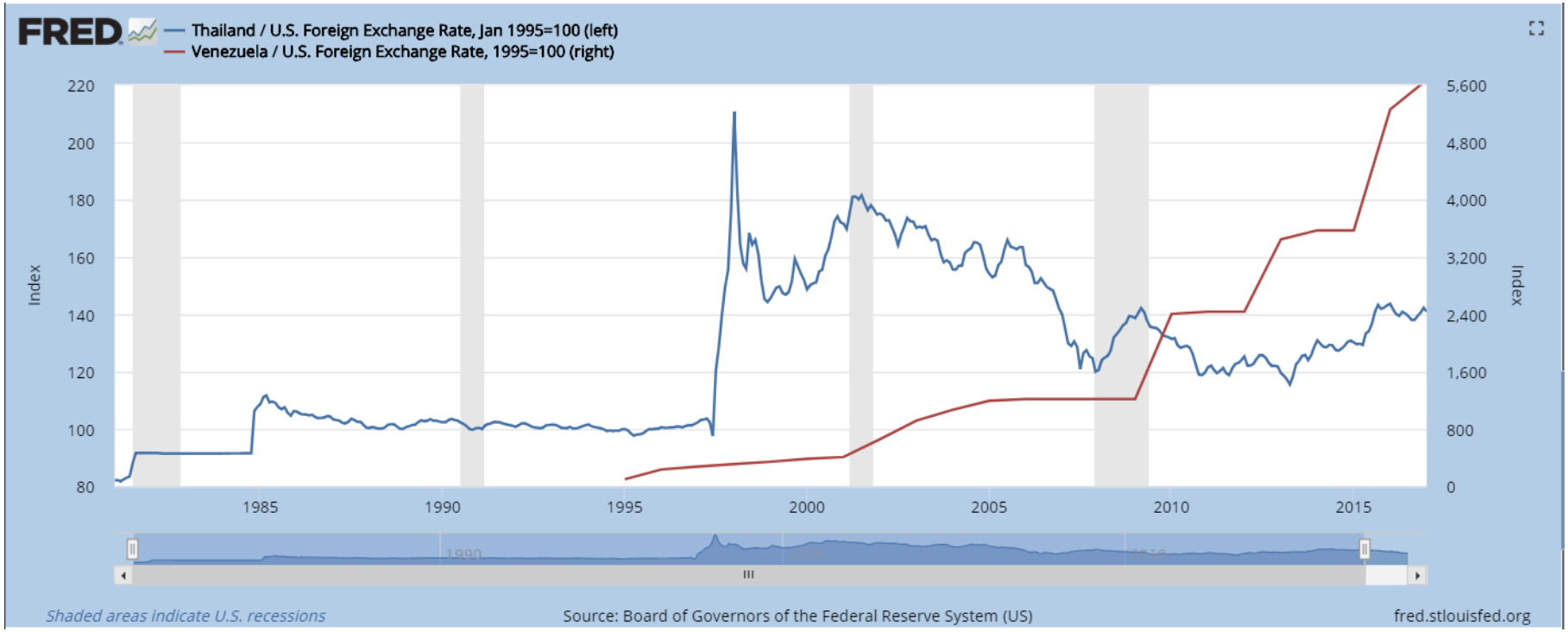
- It is exceedingly difficult to determine appropriate exchange rates using PPP or the current account balance.
- The cost of intervention in foreign exchange markets could be too high to warren the action.
- Intervention should not be employed to change the direction of exchange rate movements.
- There 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.
- But with rampant hyperinflation like in Venezuela 8,900% in April 2018..

Venezuelan Bolivar

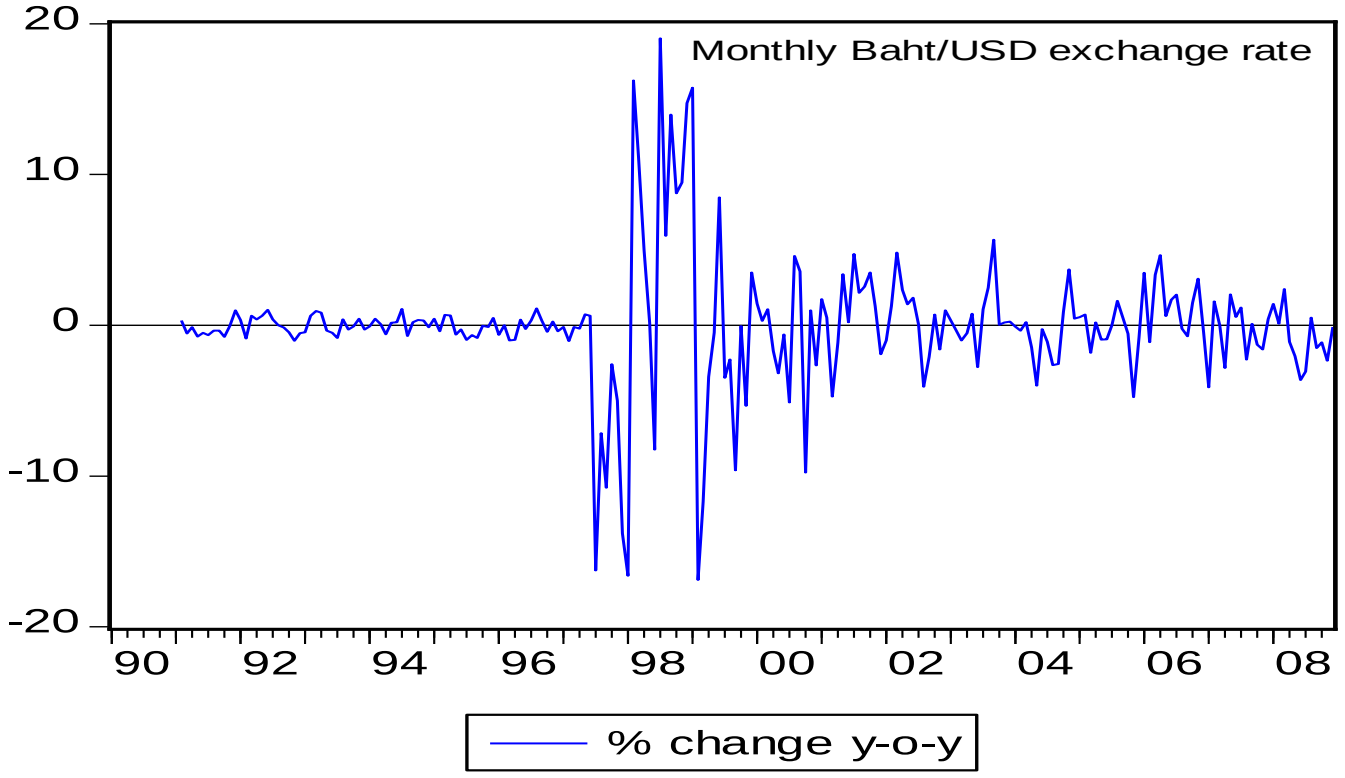
- The USDVEB increased 7,428.1800 or 12.50% to 66,853.8100 on Friday April 20 from 24,937.5000 in the previous trading session. Historically, the Venezuelan Bolivar reached an all time high of 66853.81 in April of 2018 and a record low of 0.05 in January of 1989



More benefits of a flexible exchange rate regime

- When imports are highly responsive to changes in absorption and when capital flows do not responds 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.

Flexible exchange rate: Some wiggle room



Currency and banking crises are related

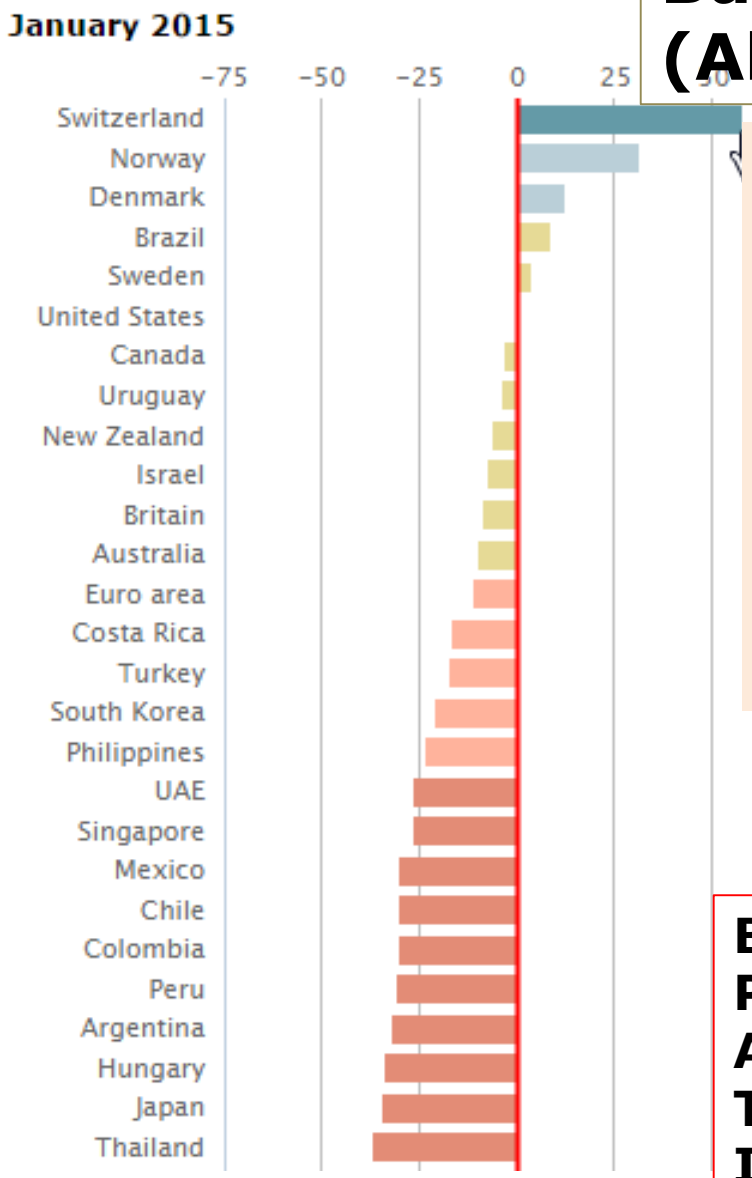
- It is equally possible that currency appreciation can stimulate growth despite its negative impact on net exports.
- The crucial factor is the impact of the currency changes on bank credit.
- A country can experience currency appreciation and economic growth as long as domestic credit increases at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

$P^T = e^*. P^{USA}$

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

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

$e = 32.6$ (actual rate)

The actual baht is overvalued by

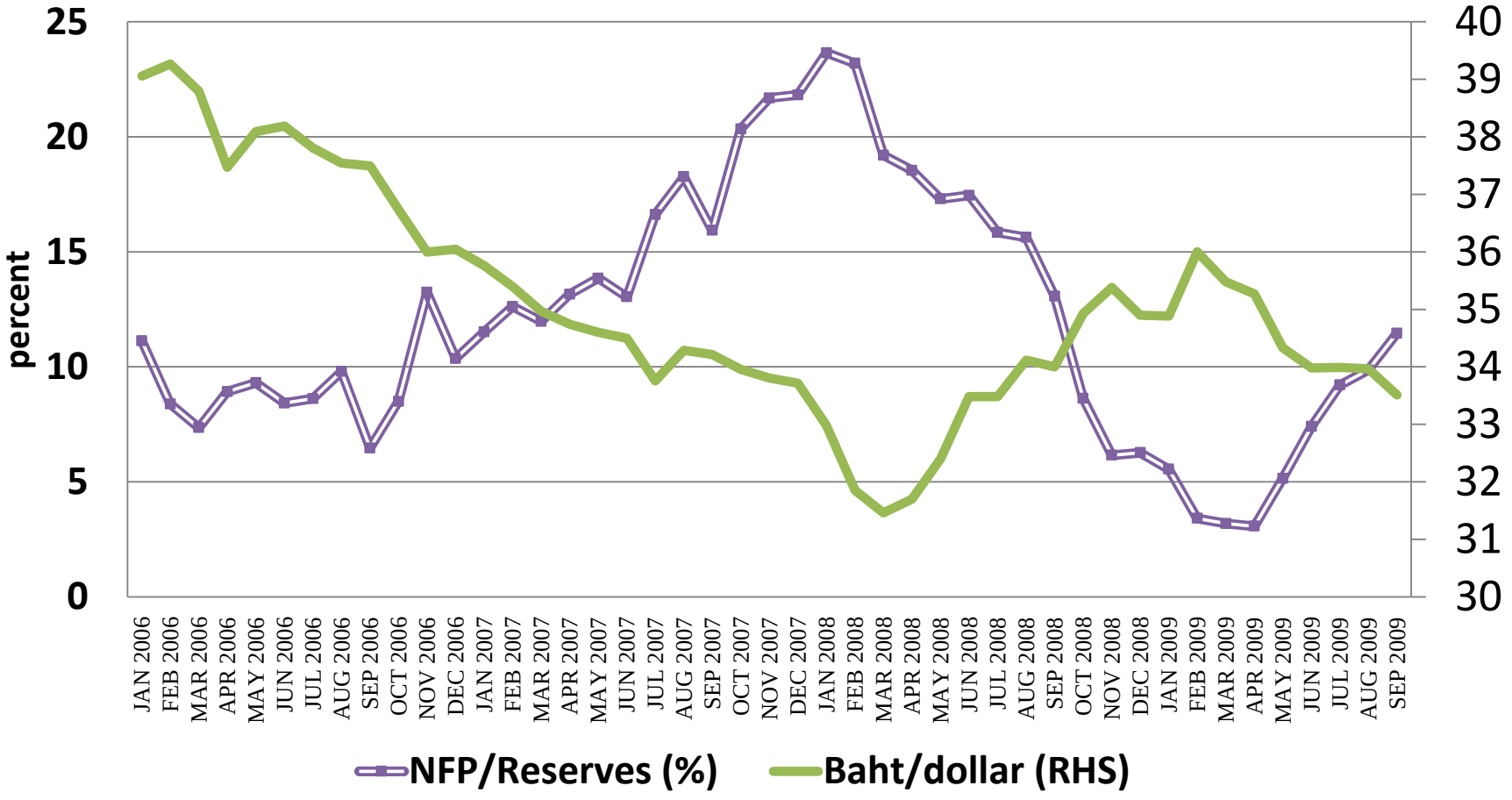
$(e^*-e)/e = -36.6\%$

Big Mac 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 from the Big Mac PPP: 20.7

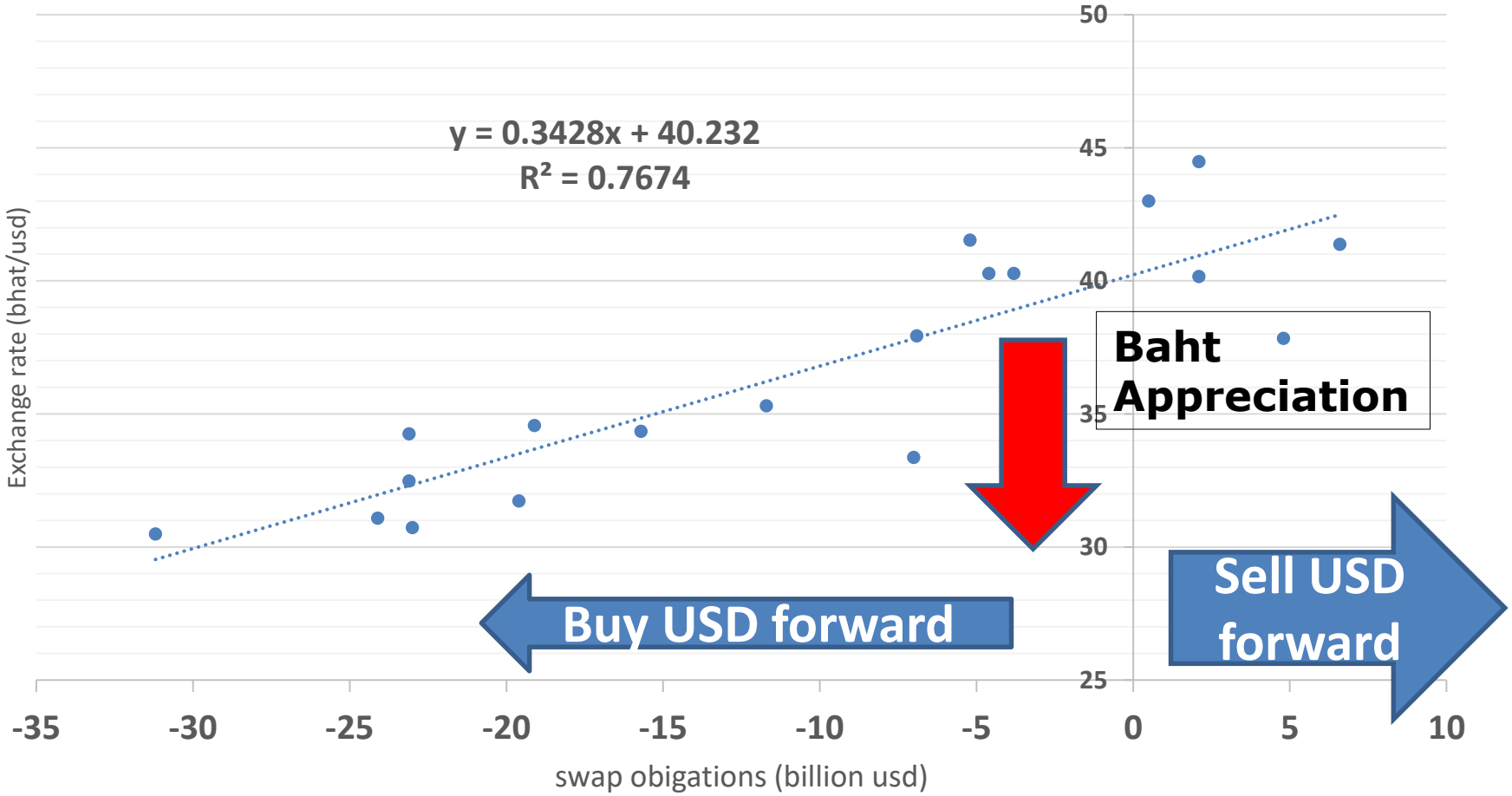
4. Fear of Appreciation
Determinants of the baht-dollar exchange rate

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

Net Forward Position: NFP
Buying the dollar forward (selling the baht forward) to prevent baht appreciation



Intervention in the forward markets: 1998-2016
buy dollar forward (negative swap obligations)when baht appreciating, sell dollar forward (positive swap obligation) when baht depreciates



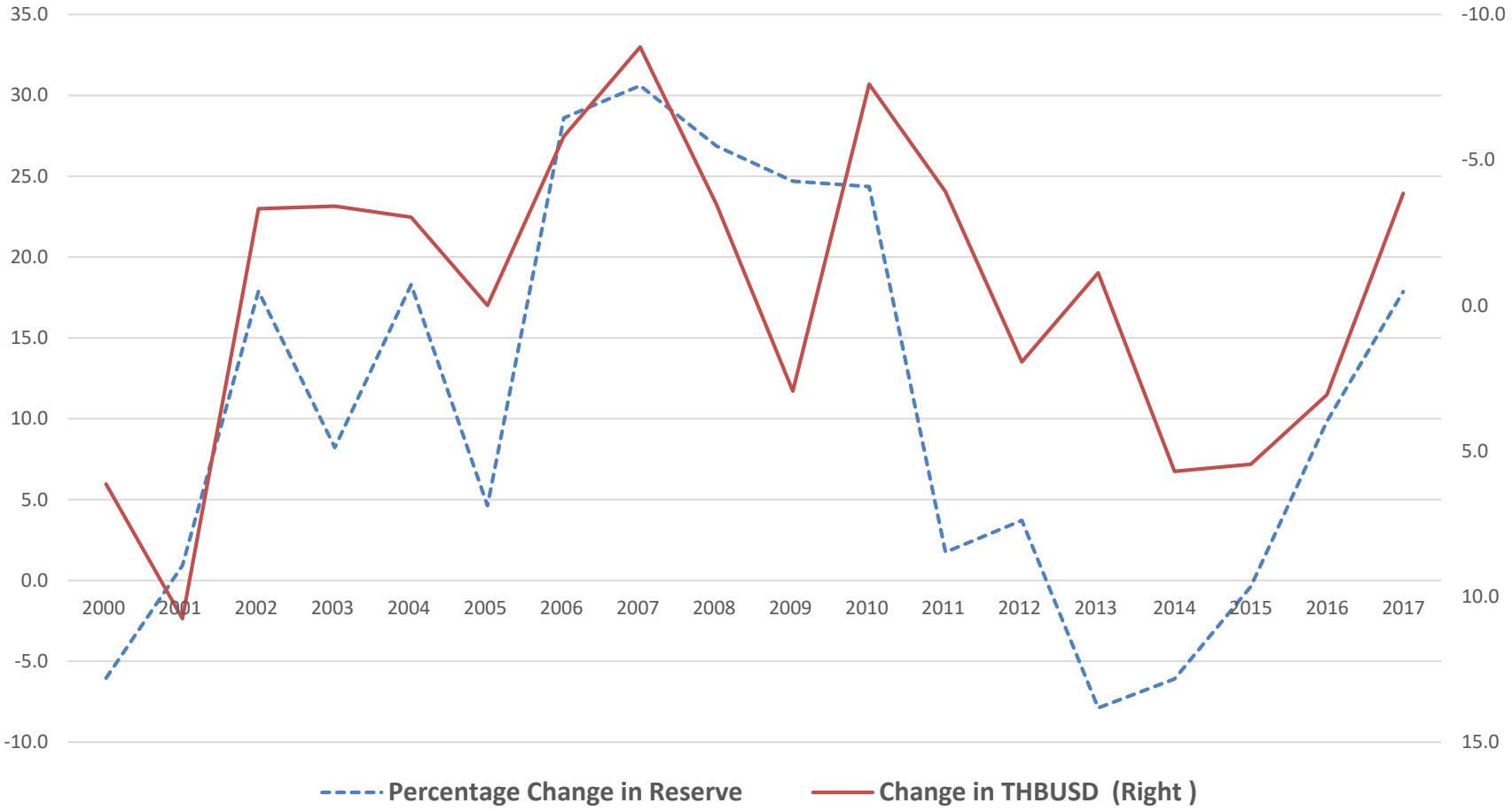
International Reserves: A record high in 2018

- Thailand's level of international reserve reached the 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.
- Foreign Exchange Reserves in Thailand increased to 215.6 billion USD in March from 212.7 billion USD in February of 2018.
- In January 1960, the reserve was 326 USD Million.

Intervention in spot and forward markets to prevent baht appreciation

The baht has been appreciating rapidly from January 2017

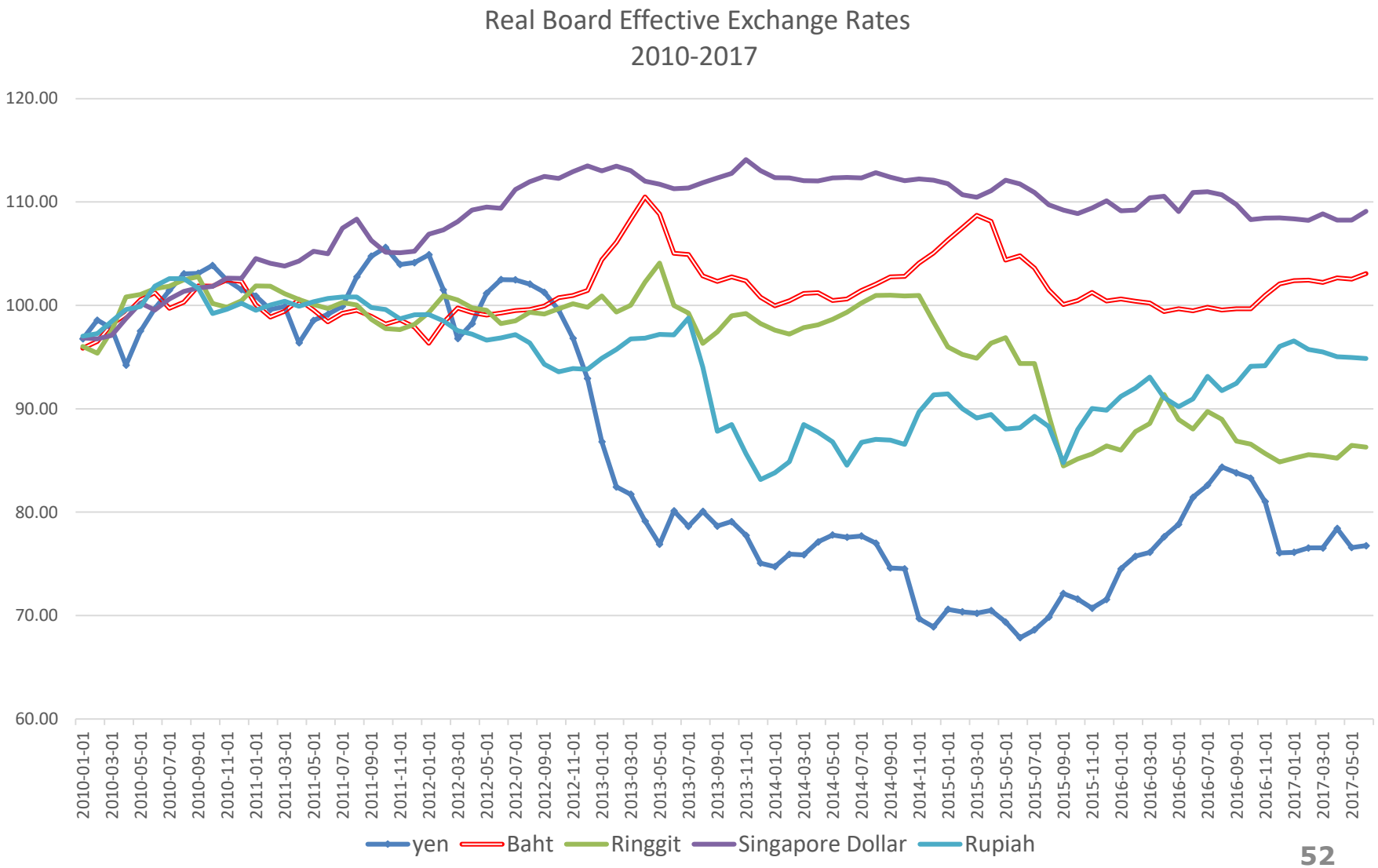
Buy more USD when baht appreciates



More volatility in net FDI

Explain why

Fear of floating: Keep it steady



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 undertaking during the absence of consumer confidence.
- The military coup in May 2014 rules out the use fiscal policy to offset the fall of exports, because of the interruption in 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 failure: 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 2018?