Thailand's Exchange Rate Policy: lessons from the past

Bhanupong

Lecture 22


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USDTHB chart by TradingView
2008
2010
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Outline

- Two definitions of the real exchange rate
- Nominal and real effective exchange rate
- Dutch disease revisited
- Implications of a flexible exchange rate regime
- QE and the impact on the Thai baht
- BOT's utilization of the international reserves

The Exchange Rate System Before 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 and real exchange rates

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

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

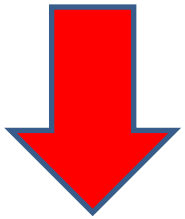
$$RER = e\left(\frac{P^U}{P^T}\right)$$

Gain in competitiveness

Depreciation

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

RER



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

Appreciation

Loss of competitiveness

If inflation rate is higher in Thailand than the US

$$e = \frac{B}{\$} = \bar{e}$$

$$e^* = \frac{B/P^T}{\$/P^{US}}$$

$$\pi^T > \pi^{US}$$

$$e^* \ appreciates$$

Under the pegged baht with the dollar before July 1997,

- Thailand's exports to Japan collapsed, because the dollar appreciated against the yen, and so did the baht/yen exchange rate.

$$e = \frac{B}{\$} = \bar{e}$$

$$\frac{B}{Y} = \frac{B/\$}{Y/\$} = \frac{\bar{e}}{Y/\$}$$

The \$ *appreciates* against the yen

$\frac{B}{Y}$ declines, the baht appreciates against the yen by the same percentage of the dollar rises against the yen

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.

Causes of rapid capital inflows

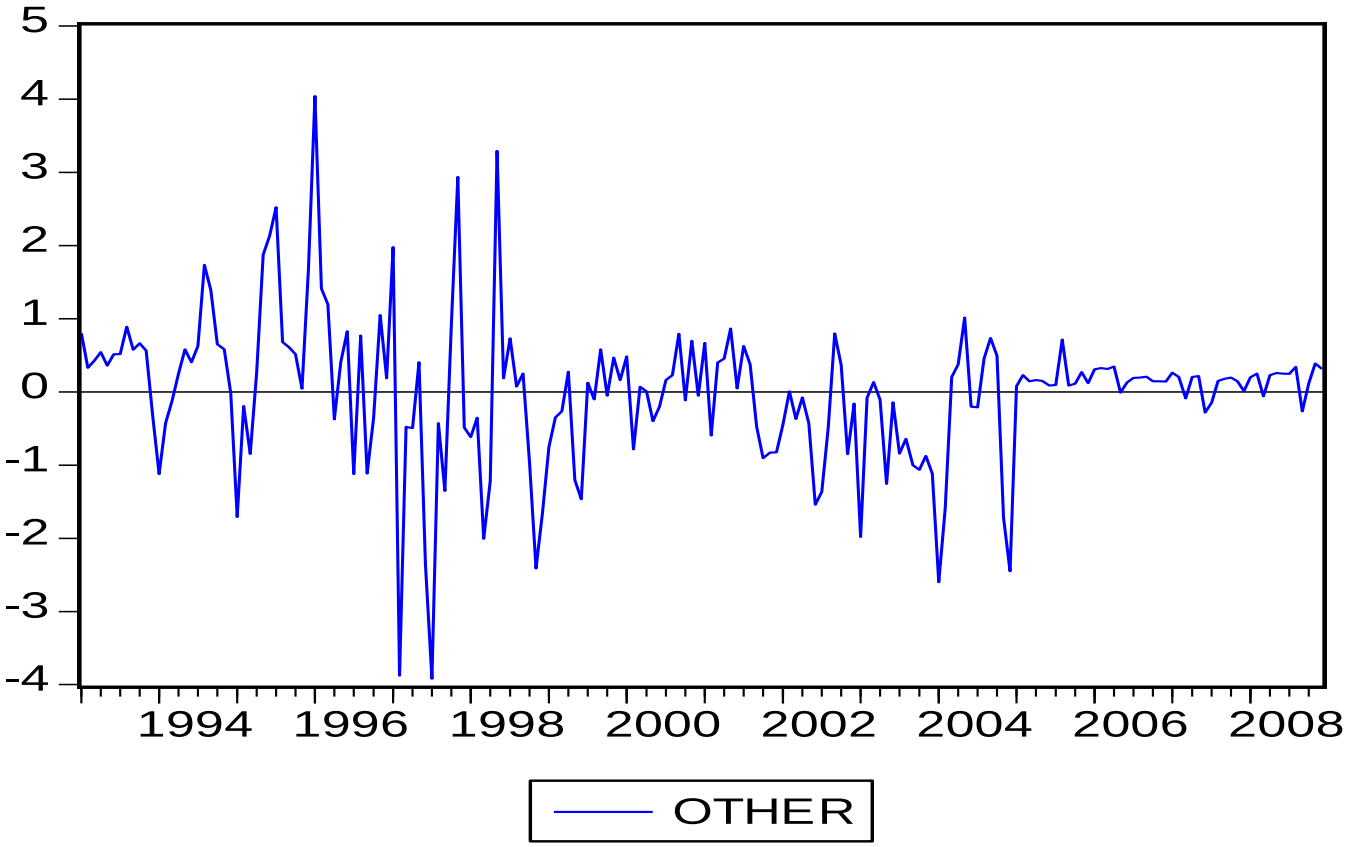
- A declining in world interest rates widened the interest rate differentials, inducing excessive foreign borrowings.
- Domestic financial liberalization increased the *sensitivity* of capital flows to interest rate differential.
- The measures undertaken to establish Thailand as a regional financial sector induced short-term capital flows though offshore borrowings by the nonbank private sector.
- Booming economy was fueled by cheap credit: the aggregate demand shifts outward to AD^{**} ($Y_A > Y_F$)
- The main culprit: BIBF

Determinants of capital flows revisited

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

Interest rate differential
Domestic output growth
Political risks
The important role of expectations (expected deprecation and appreciation)
Self-fulfilling hypothesis
There are always things (unknown and predictable shocks (ε)

Speculative capital flows



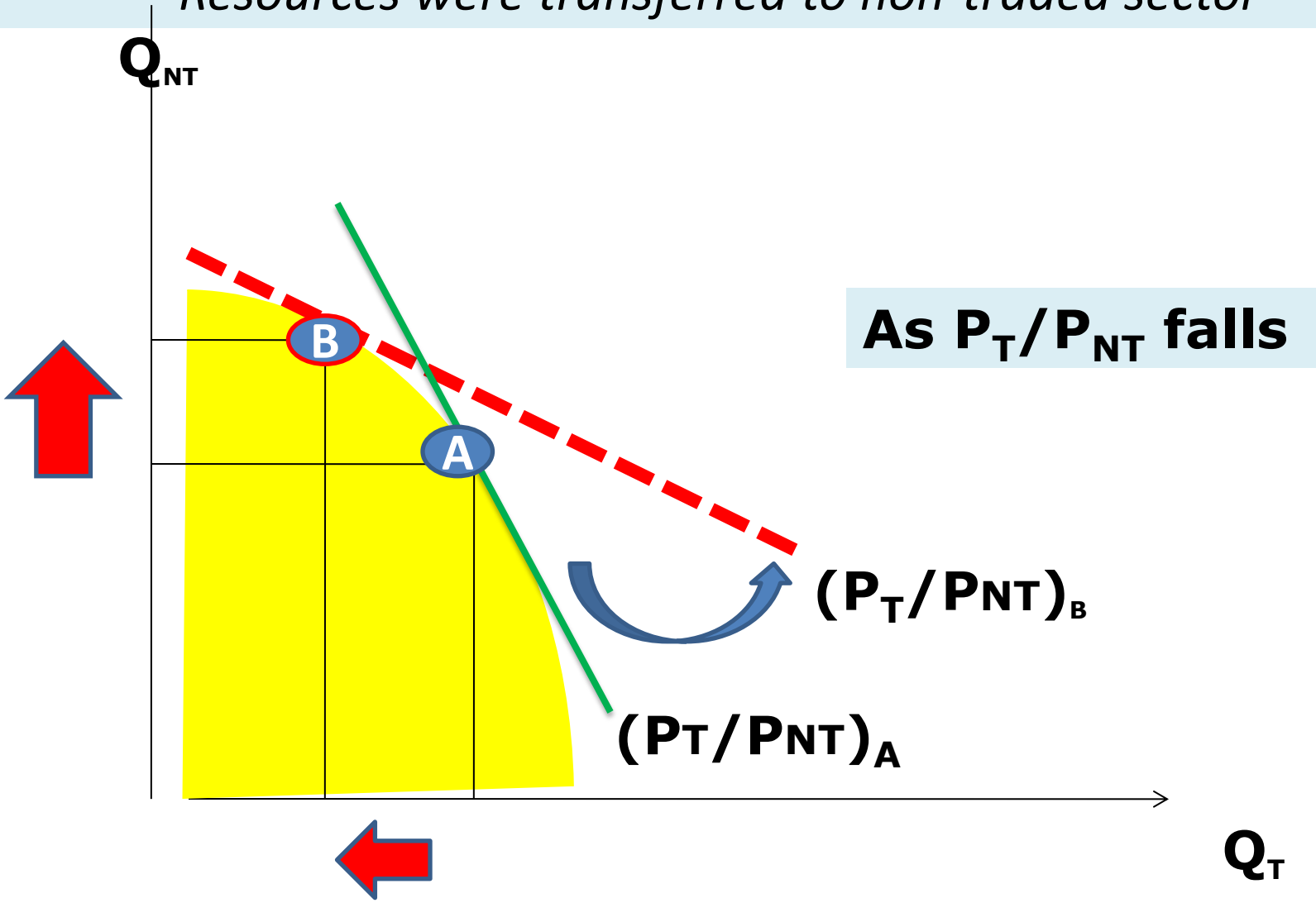
Flows OTHER than FDI, PFI, loans: non resident baht account

Adverse Consequences of Capital Inflows

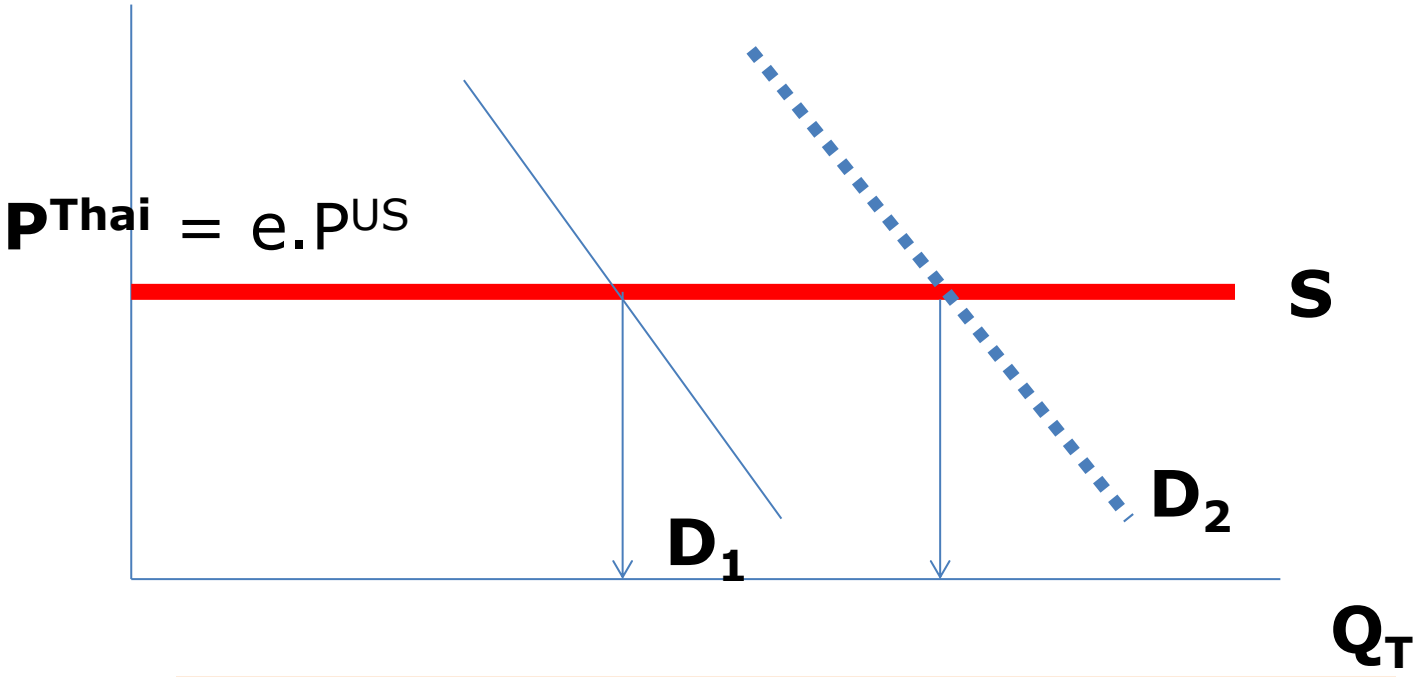
- The surge in capital flows led to the so-called “Dutch disease” which results in the appreciation of the real exchange rate and a consequent reduction in external competitiveness.
- In the Dutch disease, the current account deficit worsens since the price of non-traded goods rises faster than that of traded goods: another definition of the real exchange rate(P_T/P_{NT}).

Dutch disease and eroding competitiveness: Real exchange rate (P_T/P_{NT})appreciation

Resources were transferred to non-traded sector

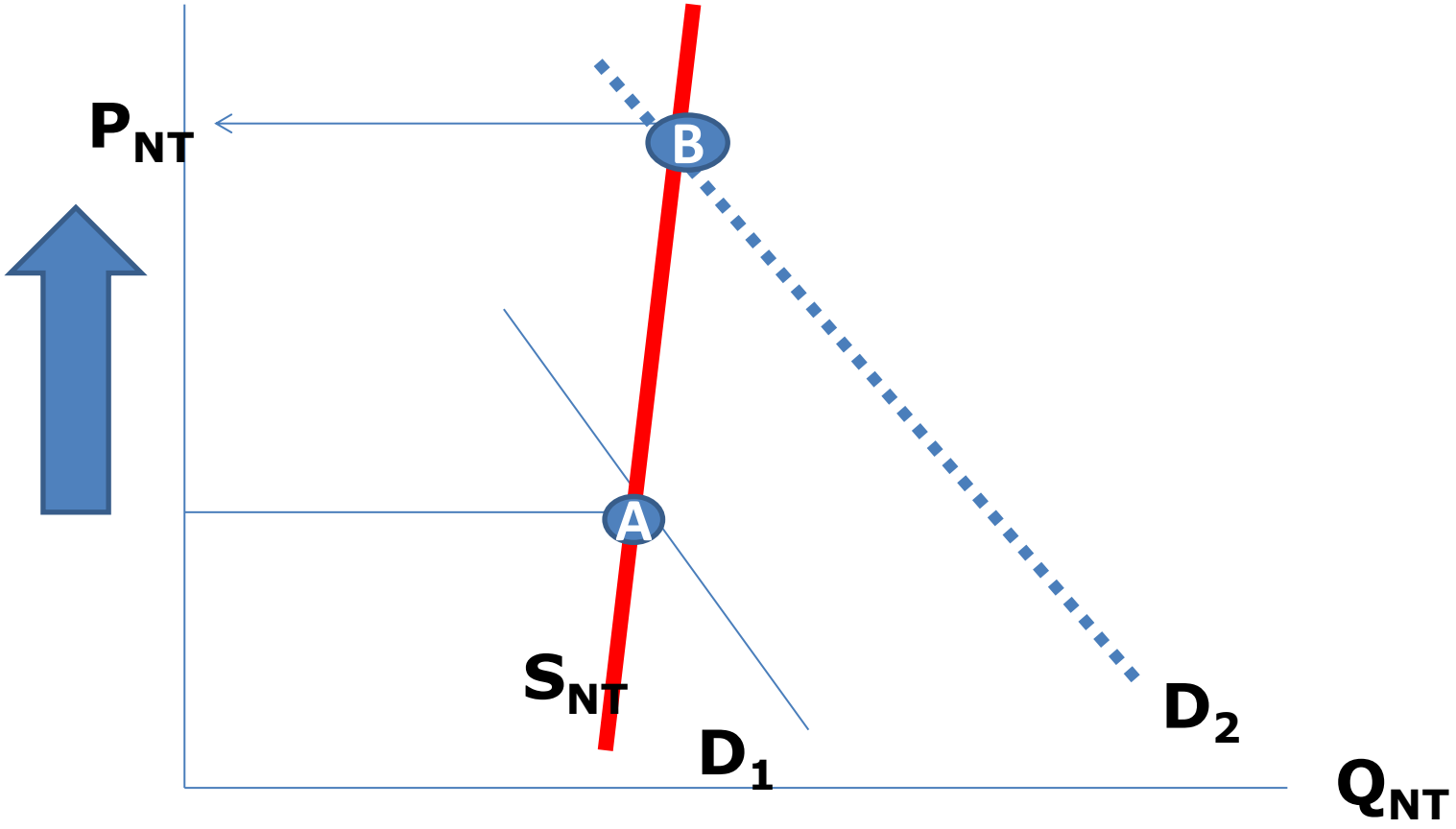


In the traded sector, where the Law of One Price rules



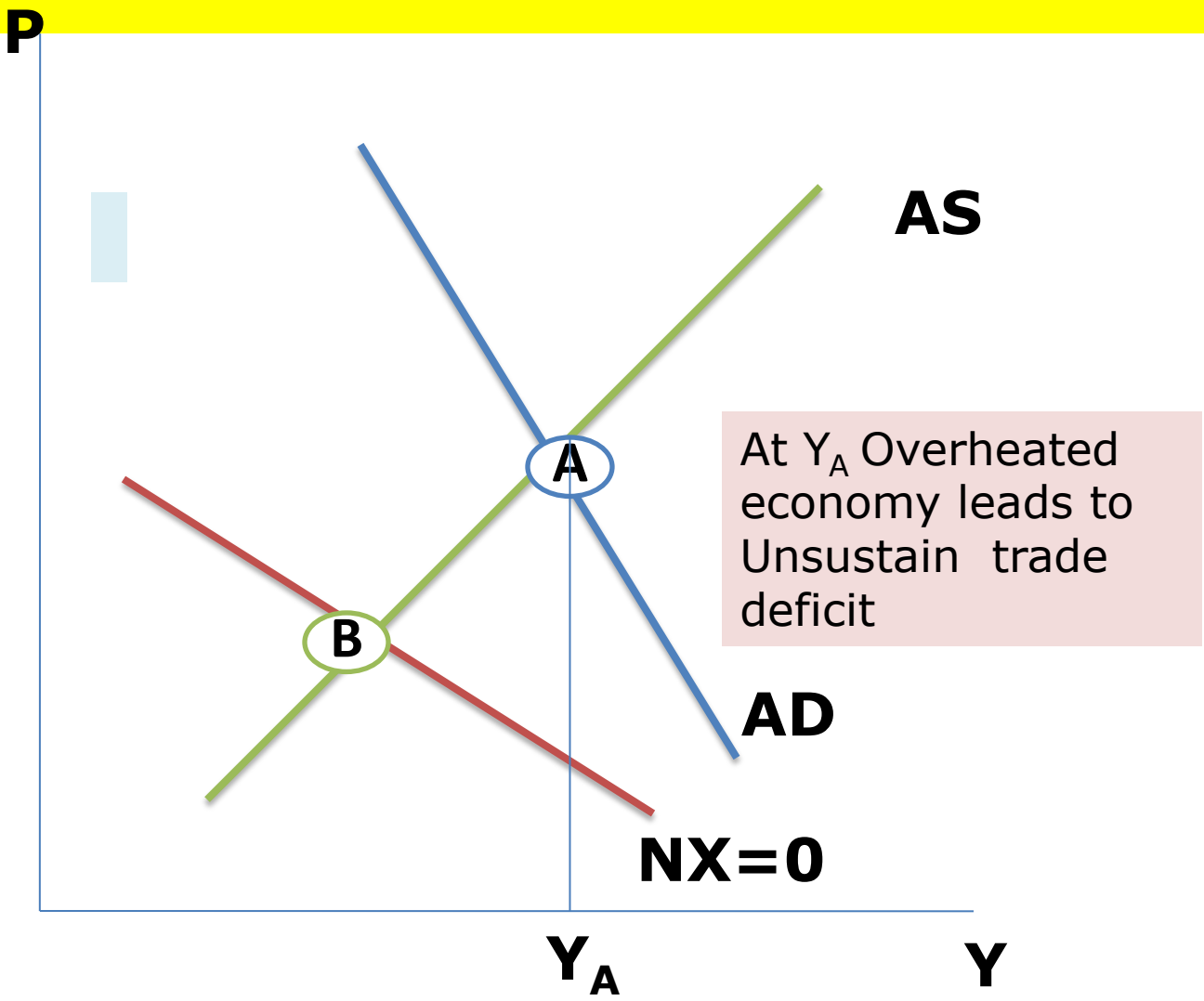
D shifts as a result of capital inflows
P_T remains unchanged

In the non-traded sector, where the supply is price inelastic



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

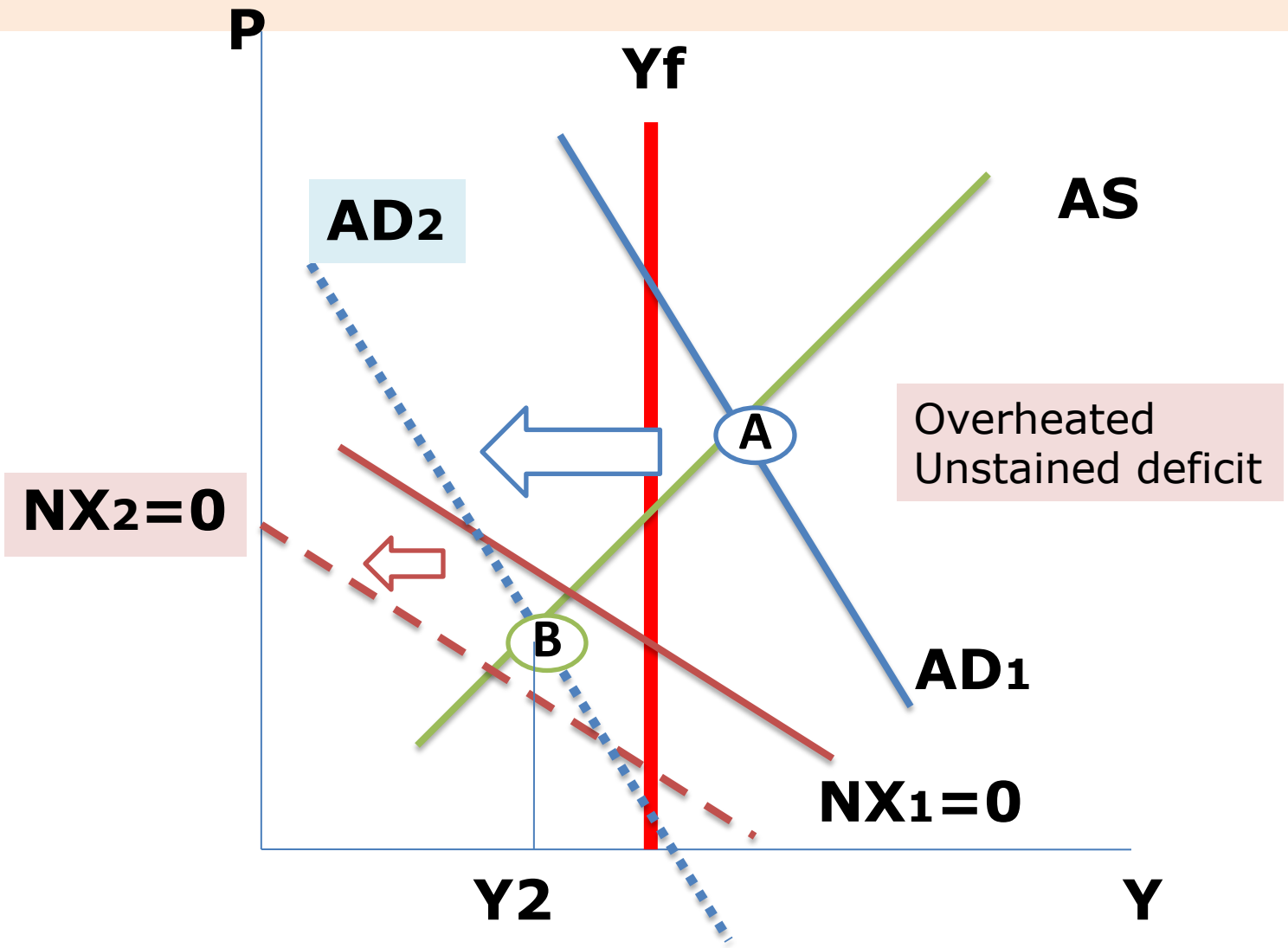
High growth leads to inflationary pressure and current account deficit



At Y_A Overheated economy leads to Unsustain trade deficit

NX=0 curve is downward slopping, If P is high, Y must low to restore X=IM

A sharp decline in exports in 1996 raised doubt about the sustainability of overvalued baht prior to the 1997 crisis

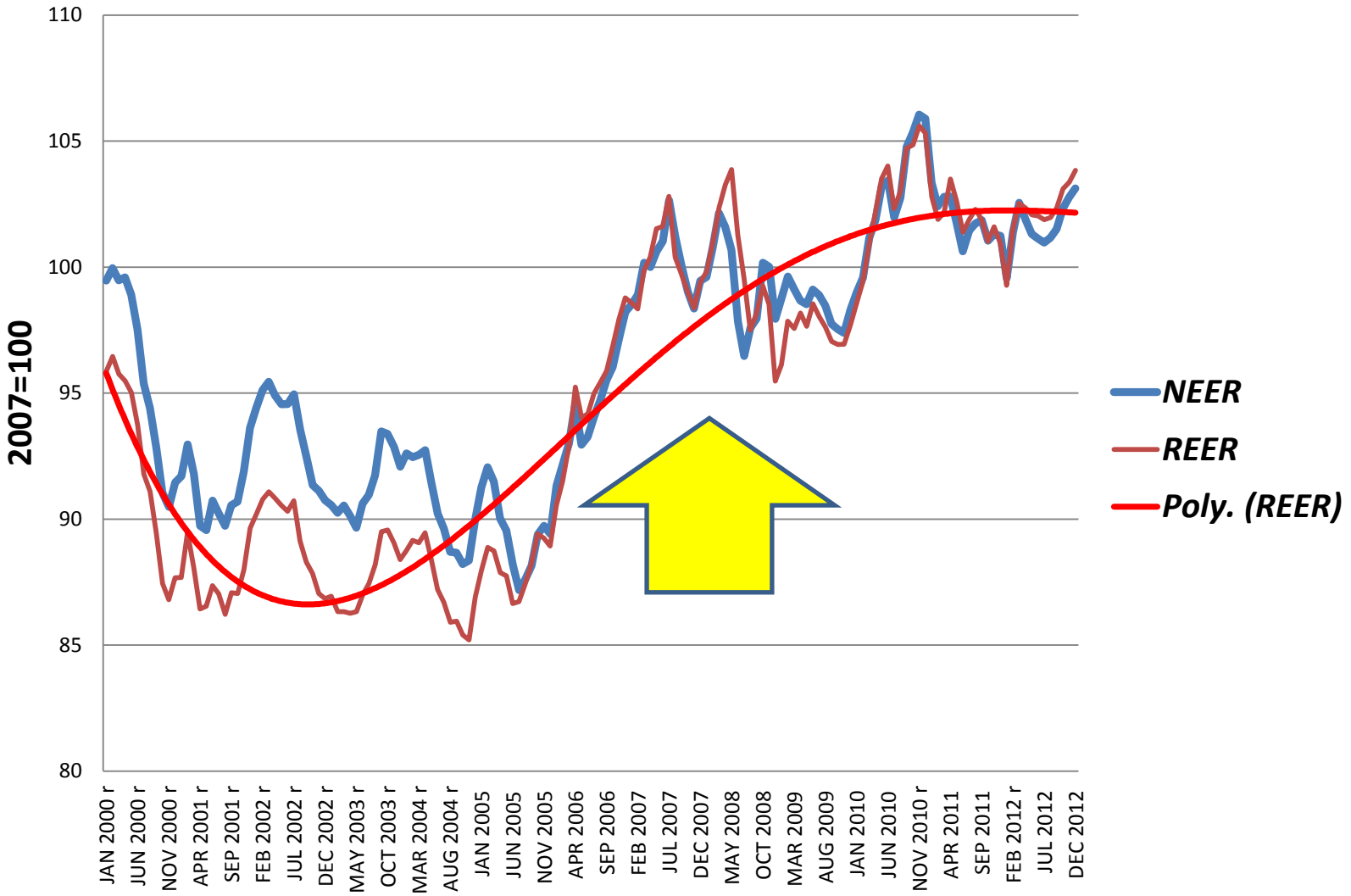


Required adjustments: output contraction and depreciation

Economic crisis in 1997/98

- 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 substation effects: expenditure switching and reducing

Effective Exchange rates: 2000-2012
Appreciation: upward direction



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 reflects conditions in 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 to reduce H (borrowing from the central bank).

The monetary approach to the balance of payments and the (old) IMF approach

- 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

Monetary Approach to exchange rate determination: the long run view

- In the long run, inflation rises at the same rate as the monetary growth
- Exchange rate depreciates by the rate of inflation expectations.
- The ultimate consequence of the QE: dollar would depreciate in the long run as inflation starts rising.

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 turmoil.
- The Nukul Commission Report views that political intervention has weakened the ability of the BOT's crisis management.
- Reputation is earned through the long history of policy commitment and it can be destroyed by a single mistake.

Central Bank Independence

- Institution independence and policy instrument independence
- Can the minister of finance sacks the governor of the central bank?
- Negative correlation exists between central bank independence (measure by the turnover of the governor) and inflation rate
- Should the BOT has absolute independence from the control of the government?

Lesson learned (or have not 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 1997 crisis?

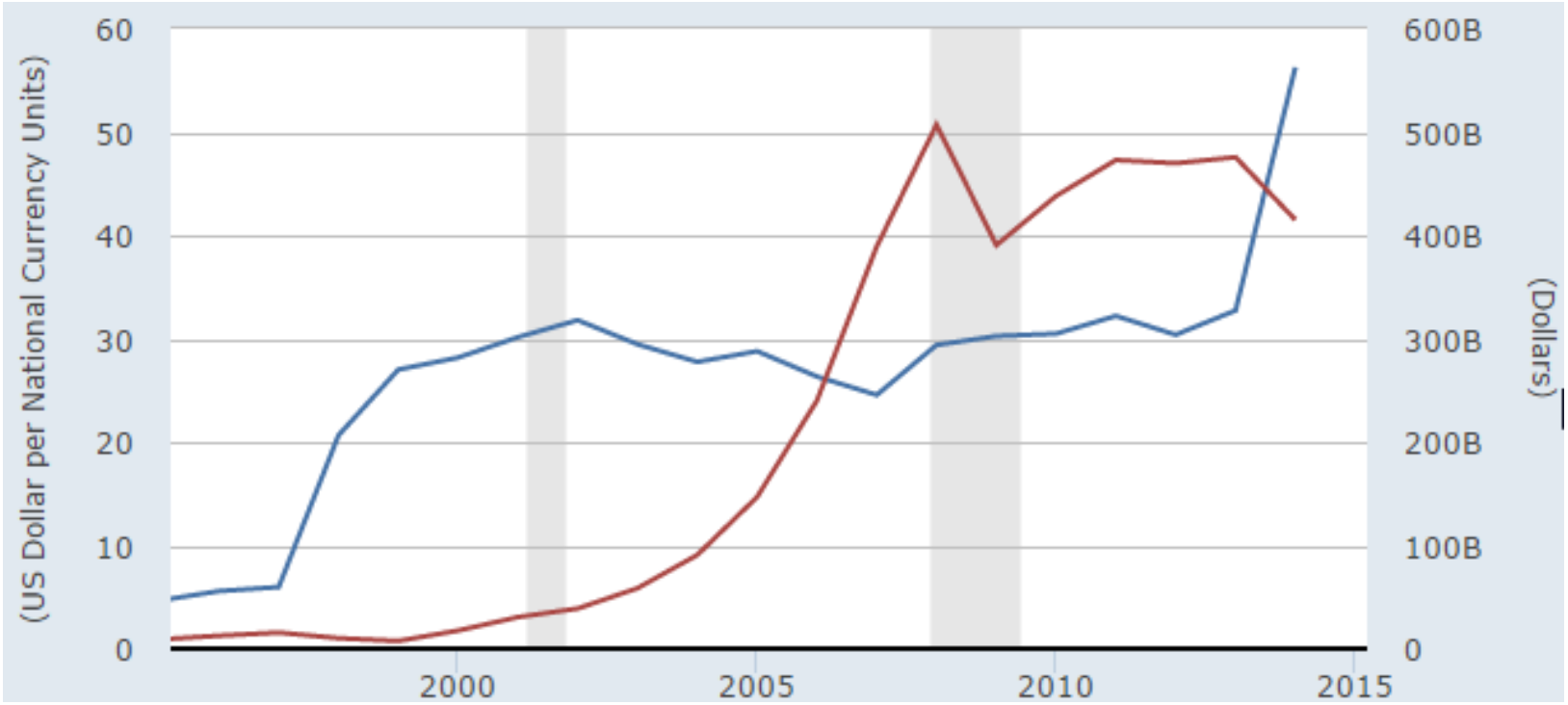
Lessons from the currency crisis

- 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 as the bank intervened heavily to prop up the ruble when the oil price declined.

Russian international reserve
Ruble-dollar exchange rate



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.
- Market participants lacked experience in the flexible exchange rate system.

To lean against the wind (against the dollar volatility)

- 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.

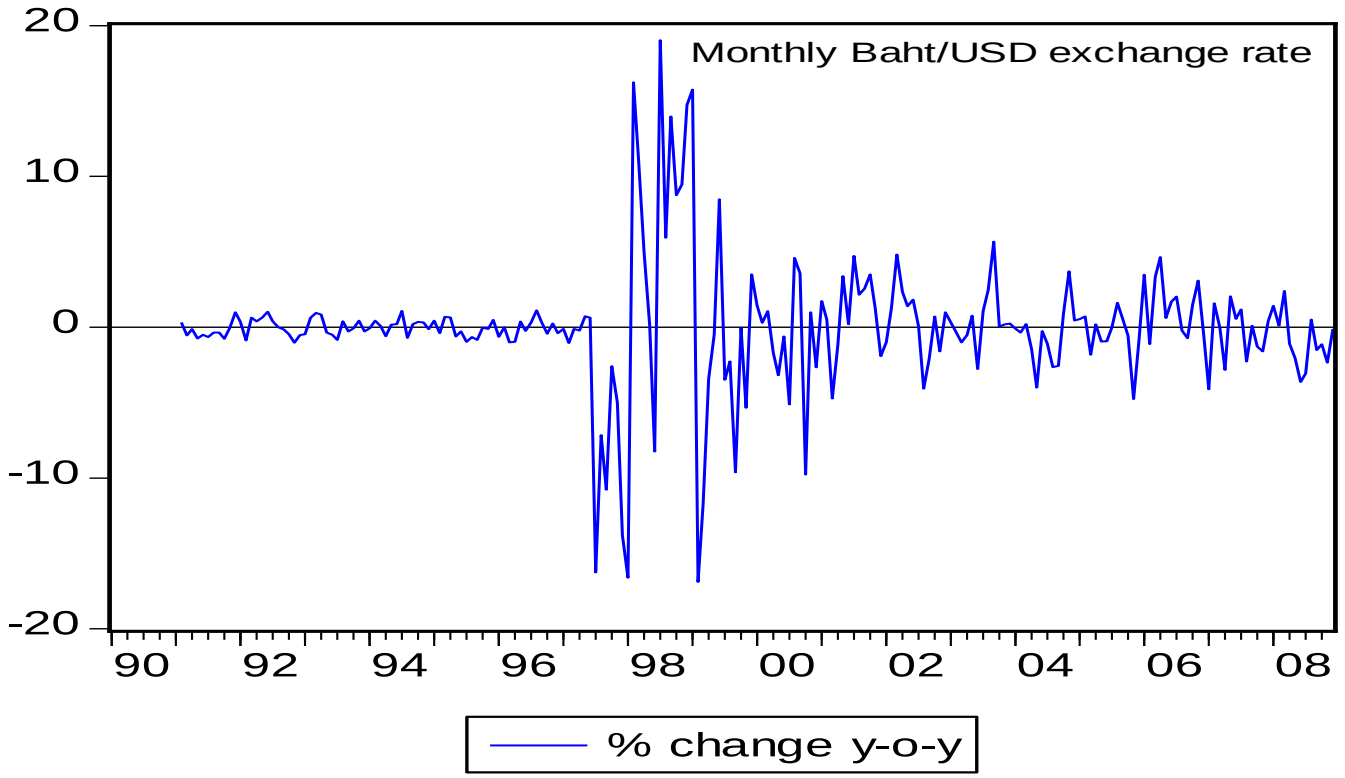
Benefits of a flexible exchange rate

- 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.

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.

A period of intense exchange rate volatility



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.
- 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.

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 an reduced their credit risk exposure and attempted to rebuild their equity capital.

Currency and banking crises and related

- It is equally possible that currency appreciation can stimulate growth despite its negative impact on net exports.
- Baht appreciation dampens inflationary pressure from strong growth and encourages imported capital goods.
- The crucial impact of the currency depreciation is the effect on bank credit growth.
- A country can experience currency appreciation and economic growth as long as domestic credit increases at a normal pace.

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, China, and Japanese economies is closely related with Thailand's export performance.

The law of one price

$$P^i_{Thai} = E_{B/\$}(P^i_{US})$$

$$E_{B/\$} = \frac{P^i_{Thai}}{P^i_{US}}$$

The i^{th} commodity is a traded commodity
We exclude cost of transportation, insurance, and tariff.
Why one price only?
Answer: Arbitrage

Can we find the appropriate level of the exchange rate?

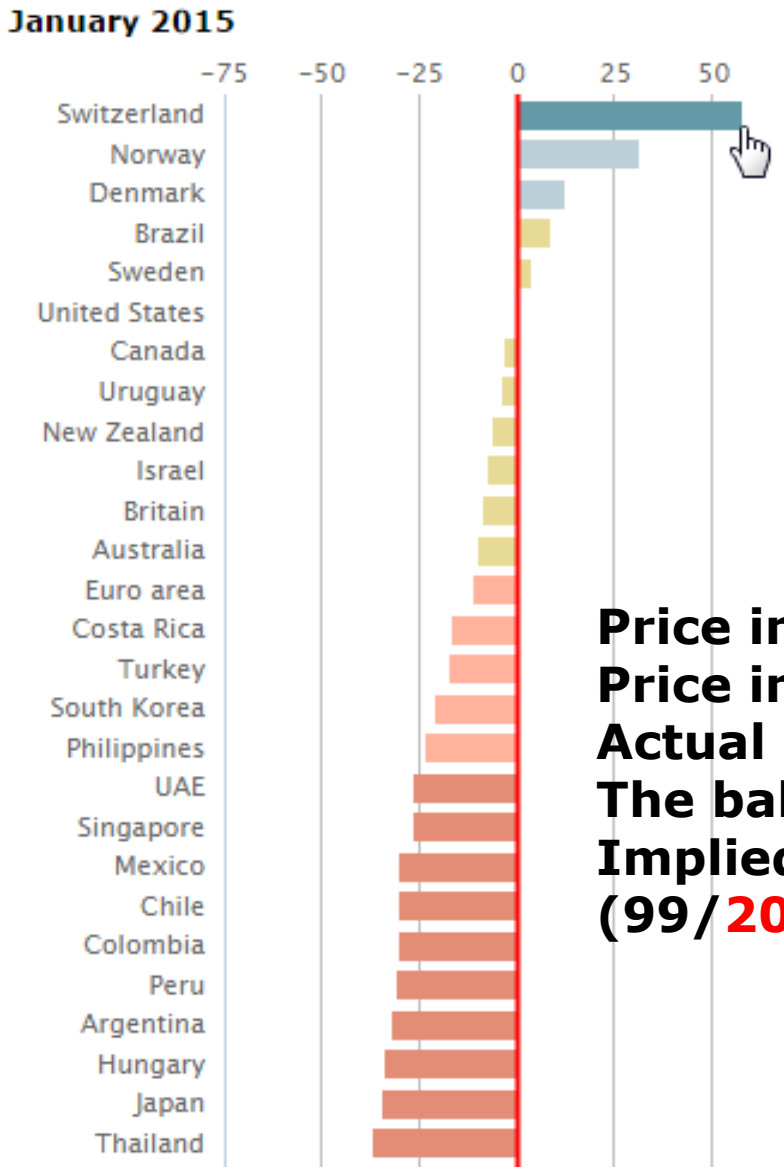
- Can we use the price ratio of the US and Thailand to calculate the appropriate level of the baht/dollar rate?
- It is exceedingly difficult to determine appropriate exchange rates using PPP or the current account balance.
- We can come up with an index of traded price in the US and Thailand to calculate the exchange rate predicted by the PPP.
- But the PPP is a long run concept based on the tradable goods.

The Breakdown of the PPP in predicting the exchange rate

- Bear in mind that the price of tradable goods also contain the price of services (non traded goods) such as marketing and labor services.
- The PPP theory does not perform well in predicting the nominal exchange rate movements as it focuses solely on monetary factor, ignoring real factors such as technological change, structural changes in labor markets.
- The reason for the breakdown of the relative PPP in predicting the exchange rates is the omission of real factors that determine the real exchange rate.

Burgernomics: An application of the law of one price

- 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.

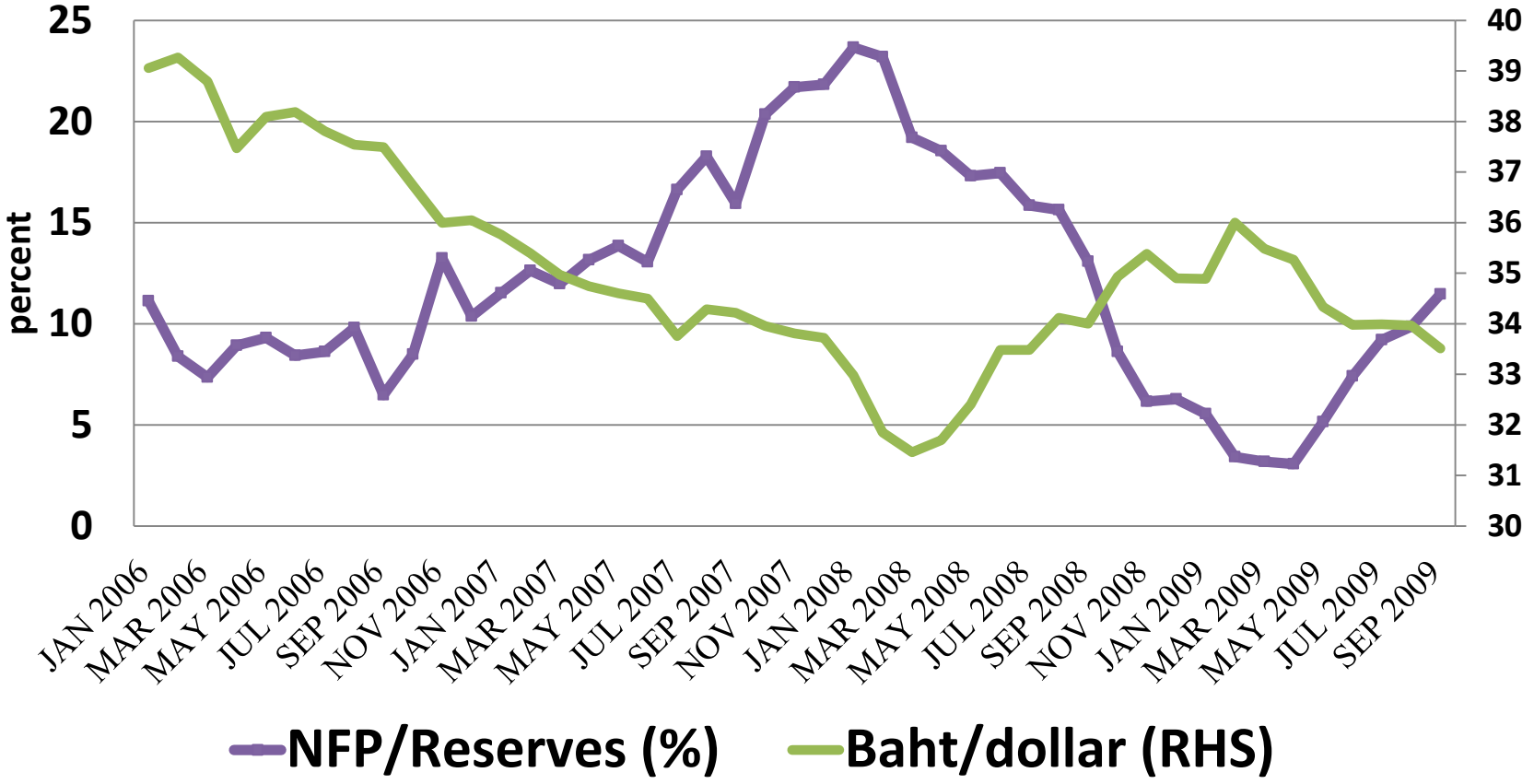


Price in USA: $4.79
Price in Thailand: $3.04 (99 baht)
Actual exchange rate: 32.6 baht/$
The baht is undervalued by 36.6%
Implied exchange rate: 20.7
(99/20.7=4.79)

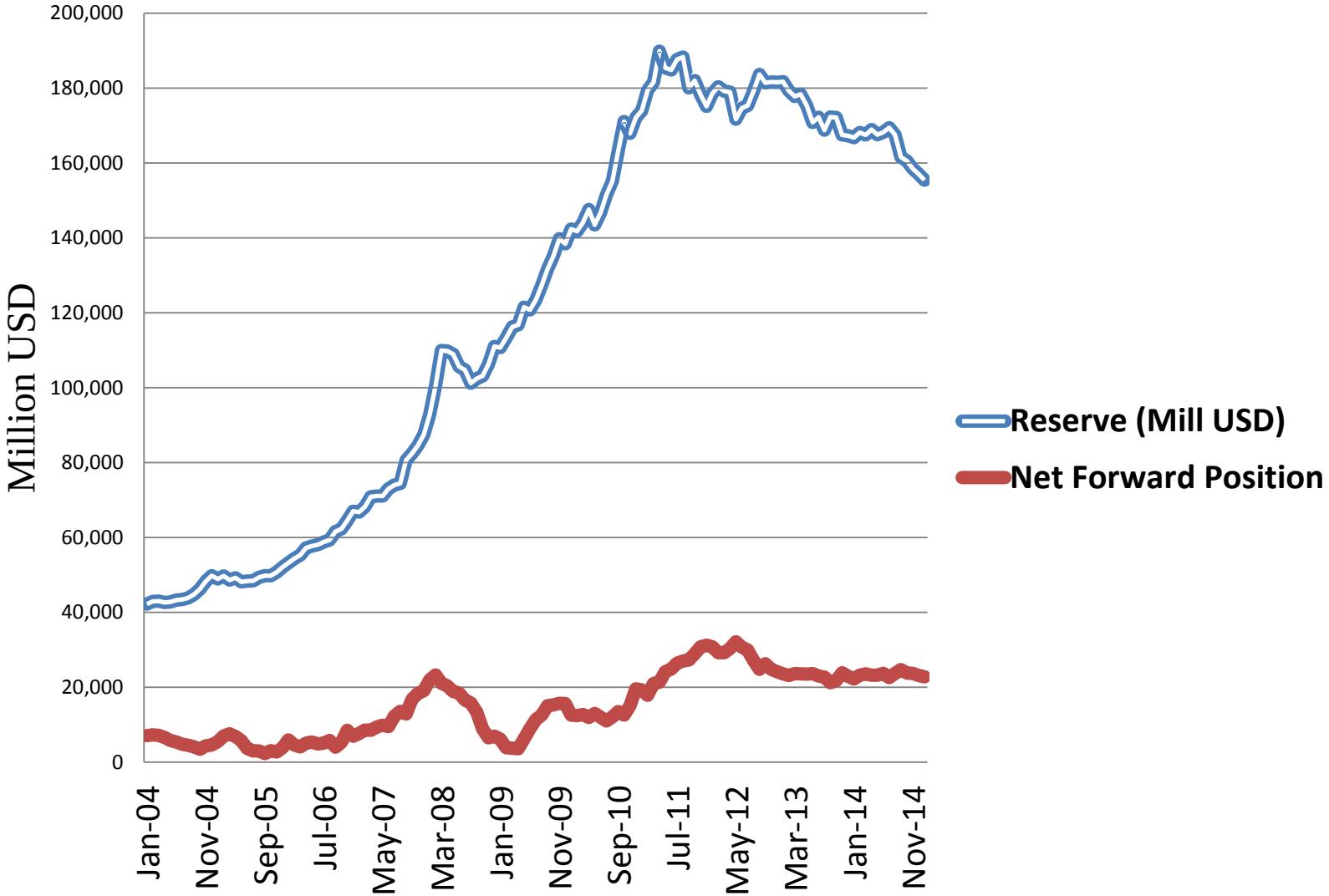
Determinants of the baht-dollar exchange rate

- When the dollar appreciates (depreciates) against major currencies, baht depreciation (appreciation) is a natural consequence.
- Inflation differentials, interest rates, and output growth matter.
- 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



Thailand's International Reserves



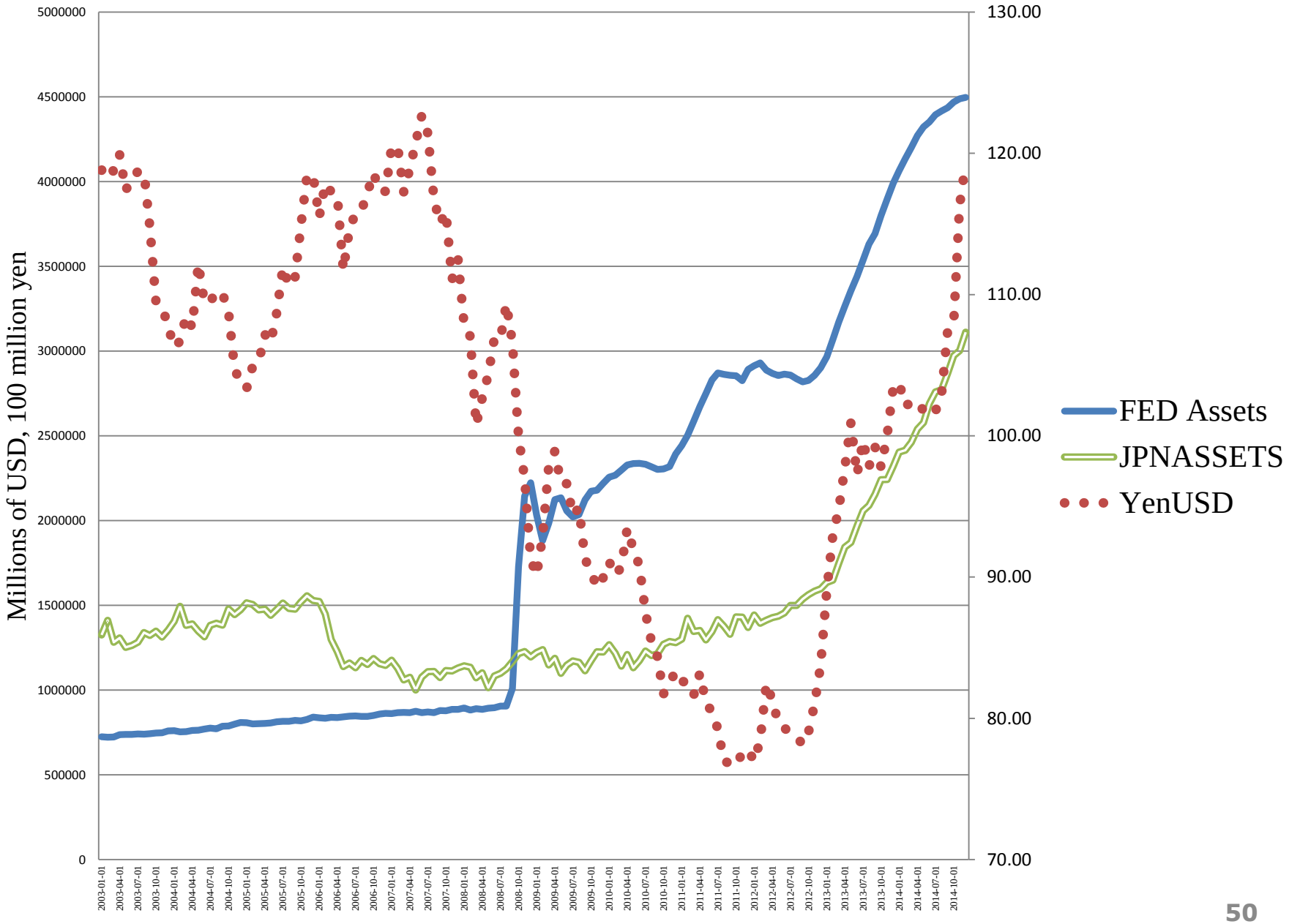
A record high: high opportunity cost

- Thailand's level of international reserve reached the all-time high at 181 billion USD in May 2011, 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.

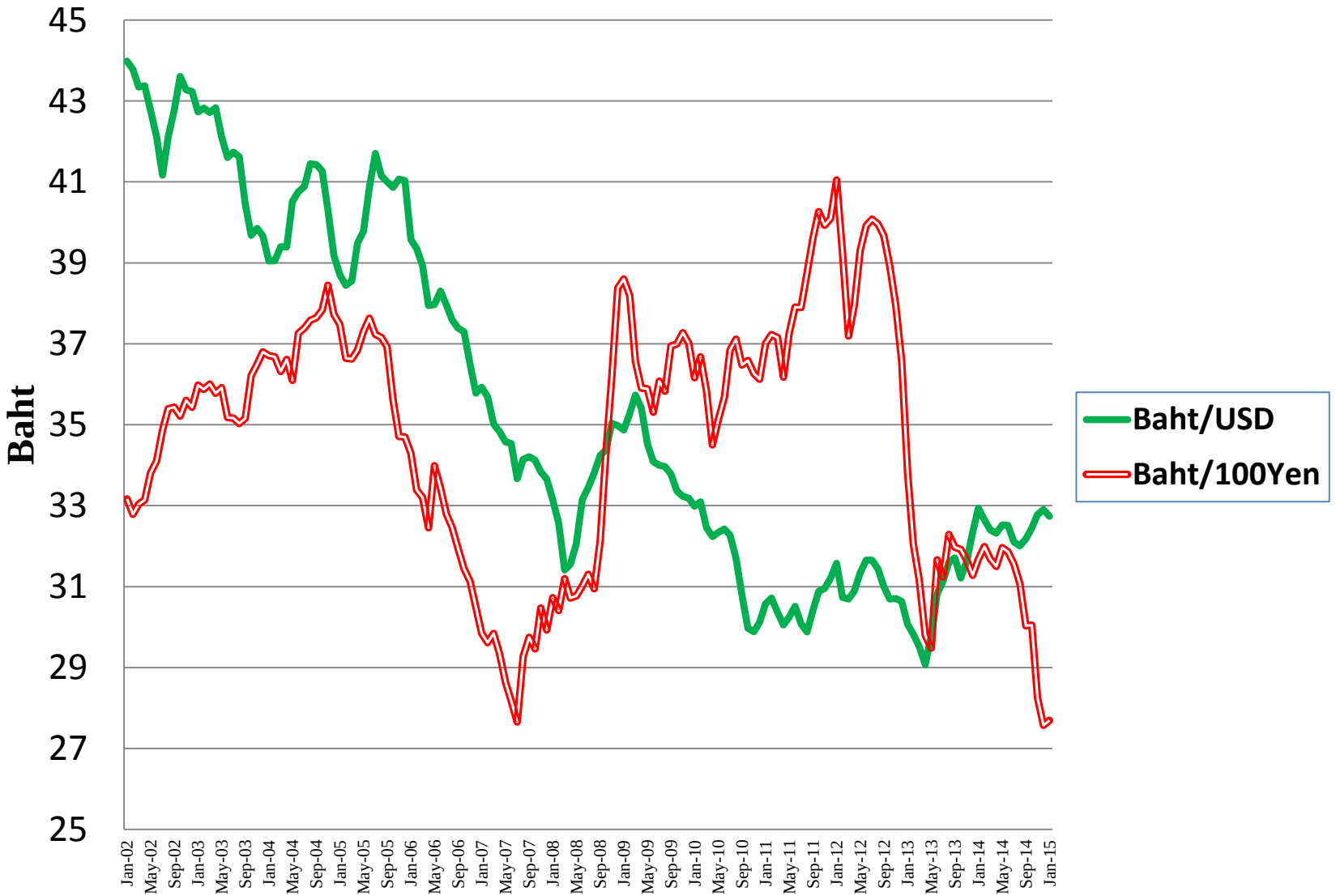
In 2016, BOT is permitted use international reserves (3% of total) to buy foreign assets in order to reduce the adverse consequences from dollar fluctuations

- Theory of inventory demand for money should be the guideline
- The need for liquidity and the choice of exchange rate regime.
- Profit vs. liquidity
- Accountability must prevail: Who is going to pay when the investment in foreign assets turns sour?
- Alternative uses of the international reserves such as infrastructure development

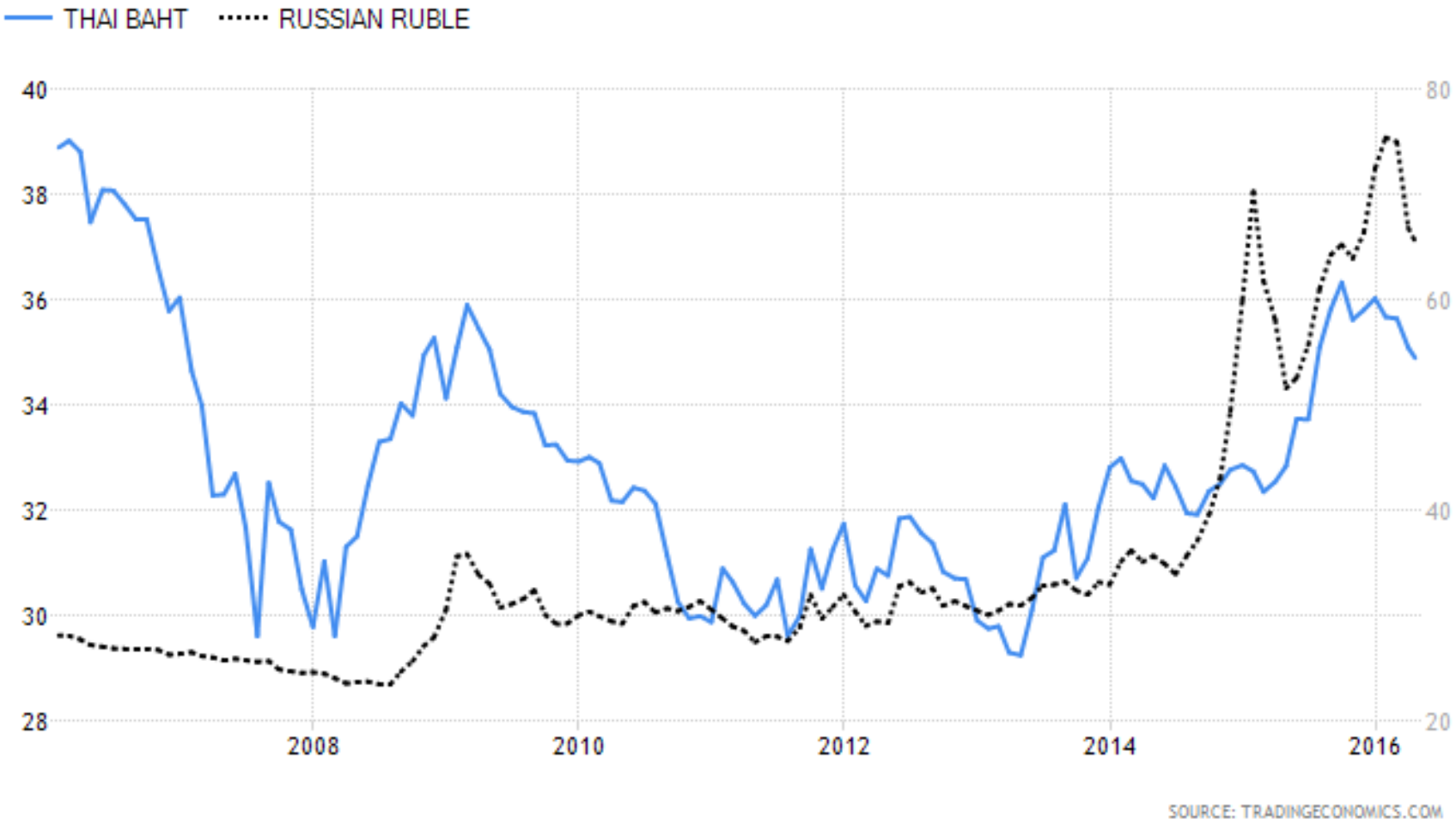
QE in USA and Japan: Impact on the Yen-USD rate



QE impacts on the baht prices of USD and JPY



The baht, the ruble, and the banks



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

- 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 exhibited consistency of market intervention.
- Output recovery depends on consumption rebound which requires consumer confidence.
- Export growth, an important growth engine of Thai economy , 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 between 2013 and 2015?