EE460: Exchange Rate Policy lessons from the past

Bhanupong

Lecture 22

Outline

- Adverse consequences of capital inflows and Thailand's optimal policy mix
- Two definitions of the real exchange rate
- Implications of a flexible exchange rate regime
- Fear of appreciation

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 and real exchange rates

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

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

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

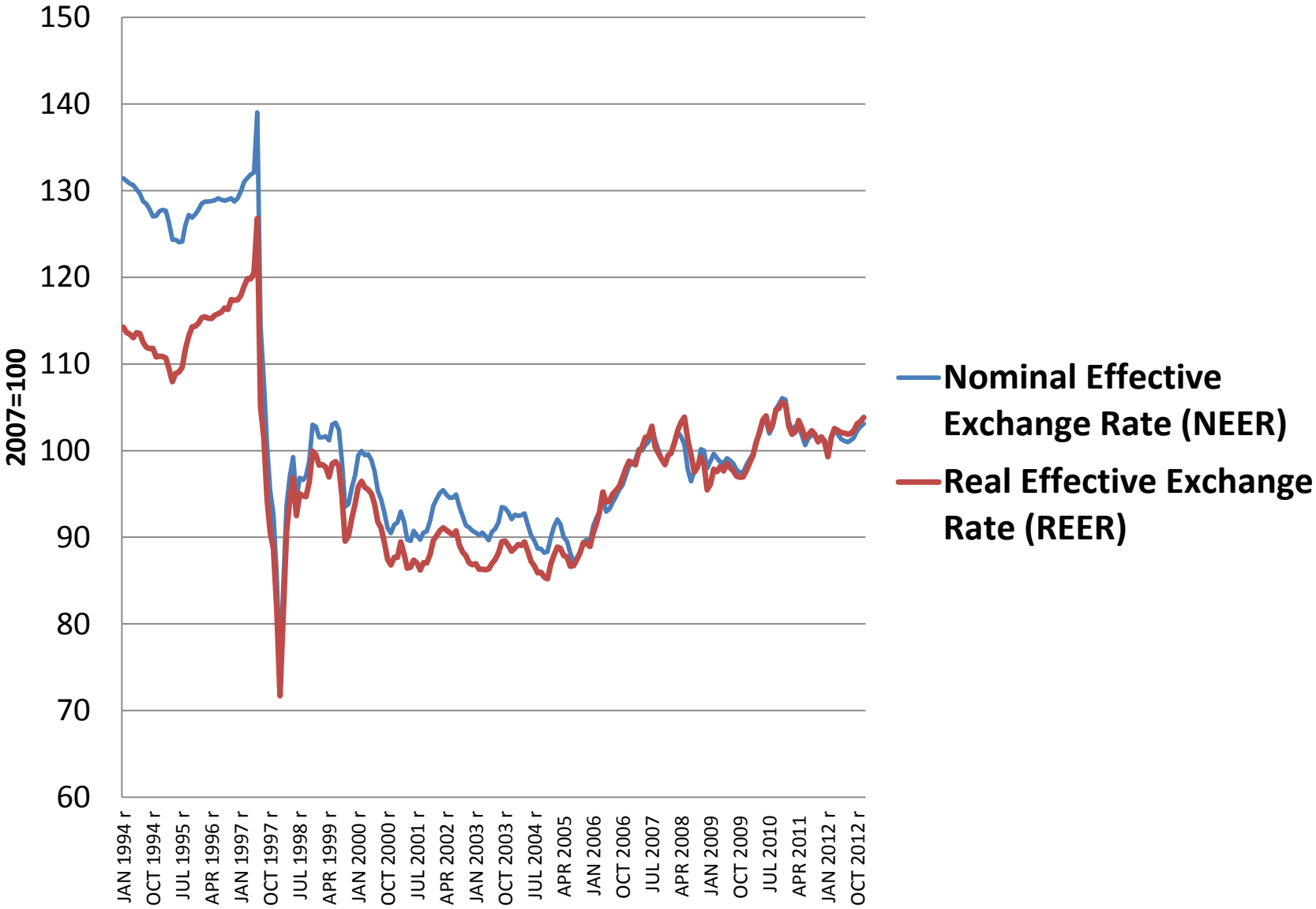
Nominal and Real Effective Exchange rates

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

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

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

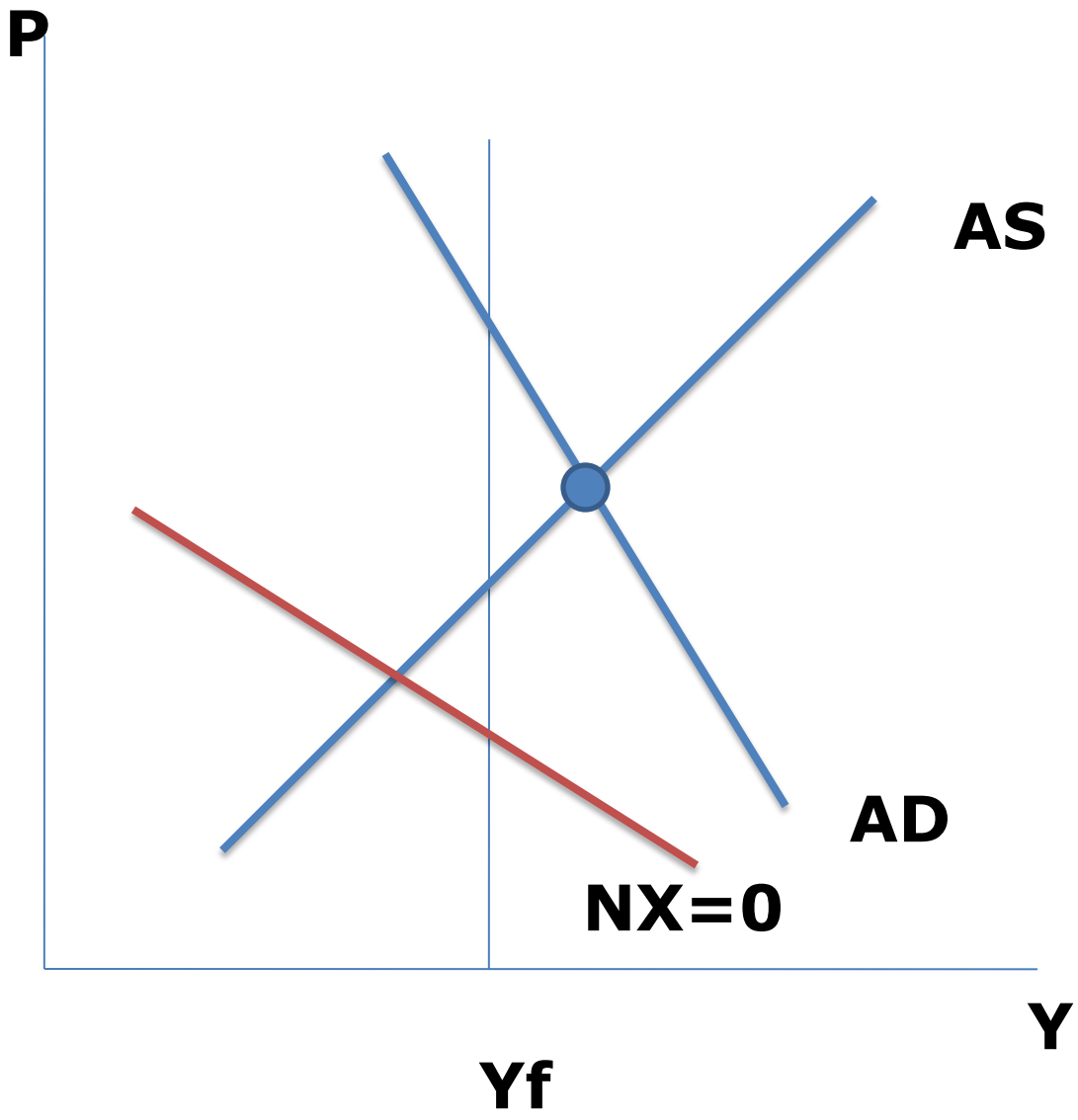
Nominal vs Real Effective Exchange Rates



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.

During the boom: current account deficit, high price level, and excessive output growth



Causes of rapid capital inflows

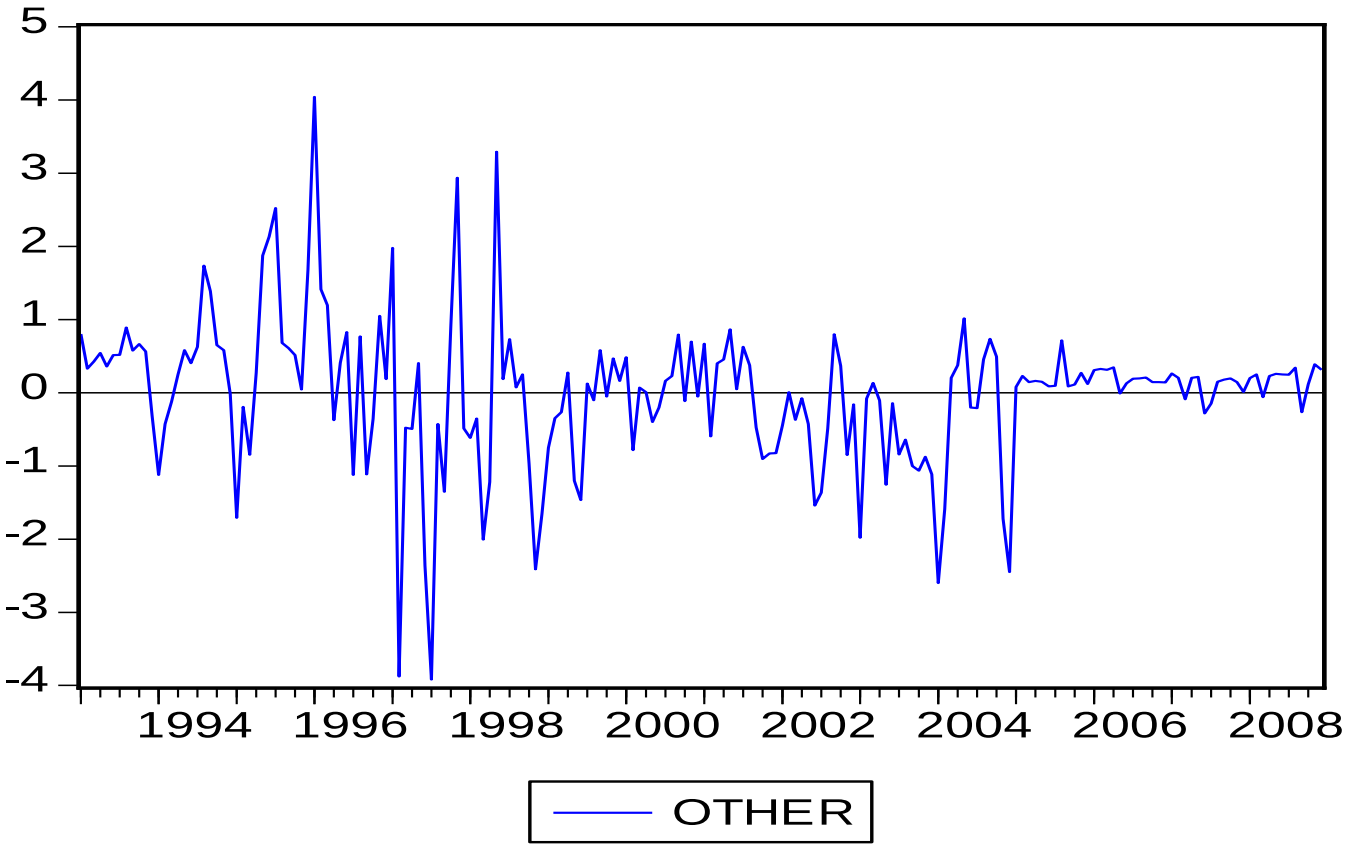
- A declining in world interest rates widened the interest rate differentials, inducing excessive foreign borrowings.
- Domestic financial liberalization increased the *sensitivity* of capital flows to interest rate differential.
- The measures undertaken to establish Thailand as a regional financial sector induced short-term capital flows though offshore borrowings by the nonbank private sector.
- The main culprit: BIBF

Determinants of capital flows

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

The important role of expectations

Speculative capital flows



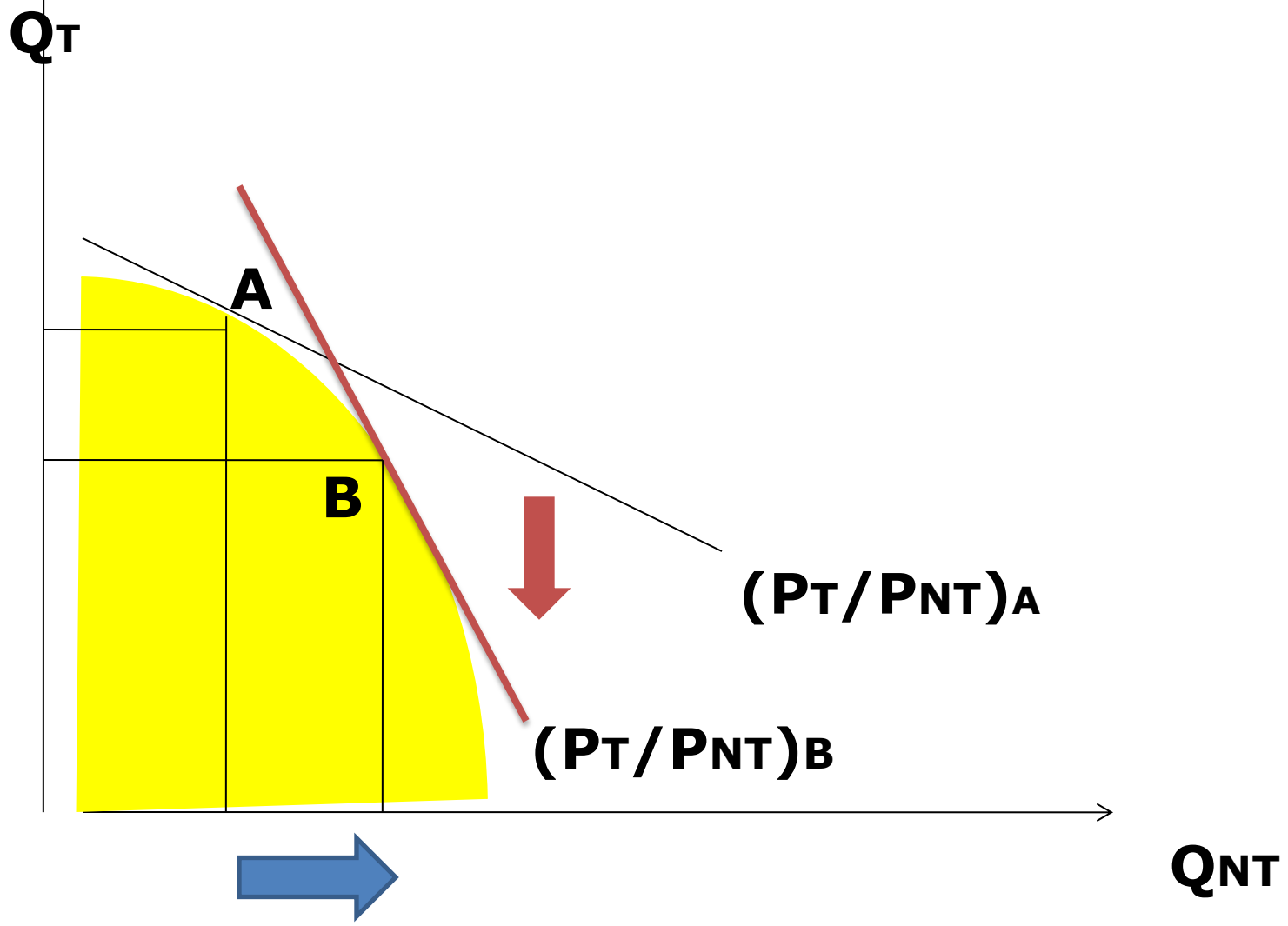
Adverse Consequences

- 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: another definition of the real exchange rate(Pt/Pnt)

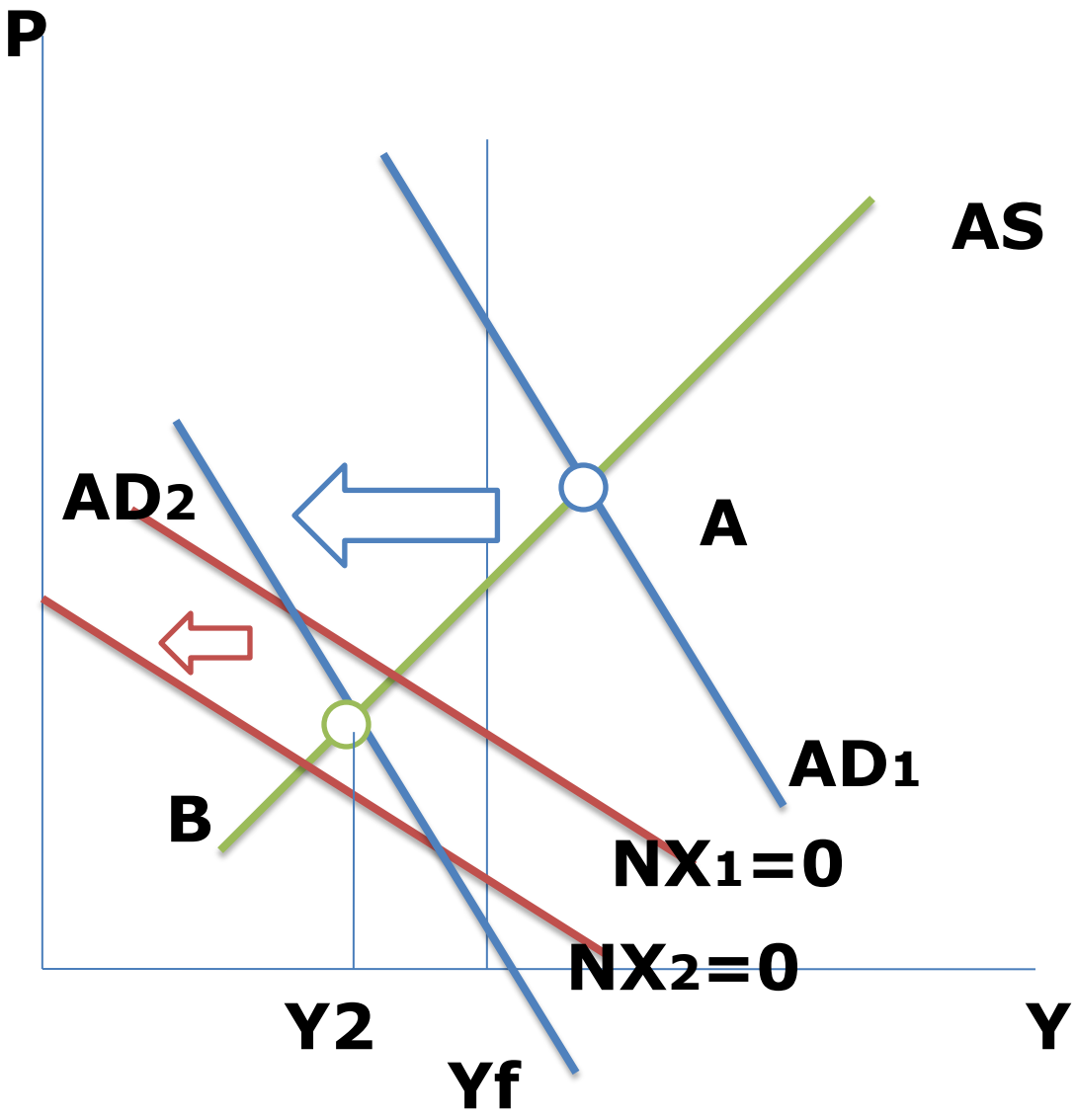
Dutch disease and eroding competitiveness:

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

Resources were transferred to non-traded sector



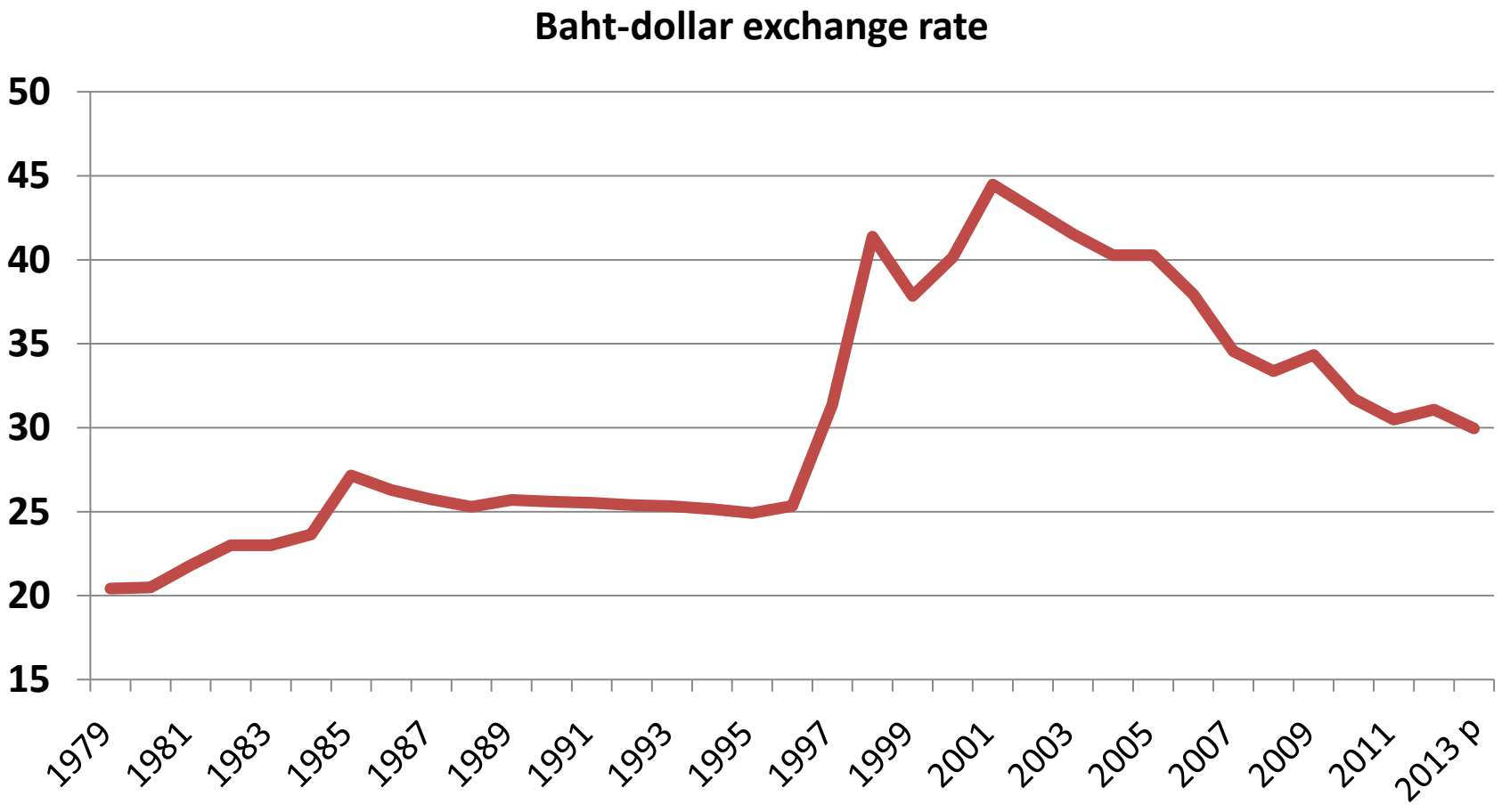
Impact of a sharp decline in exports in 1996 raised doubt about the sustainability of overvalued baht



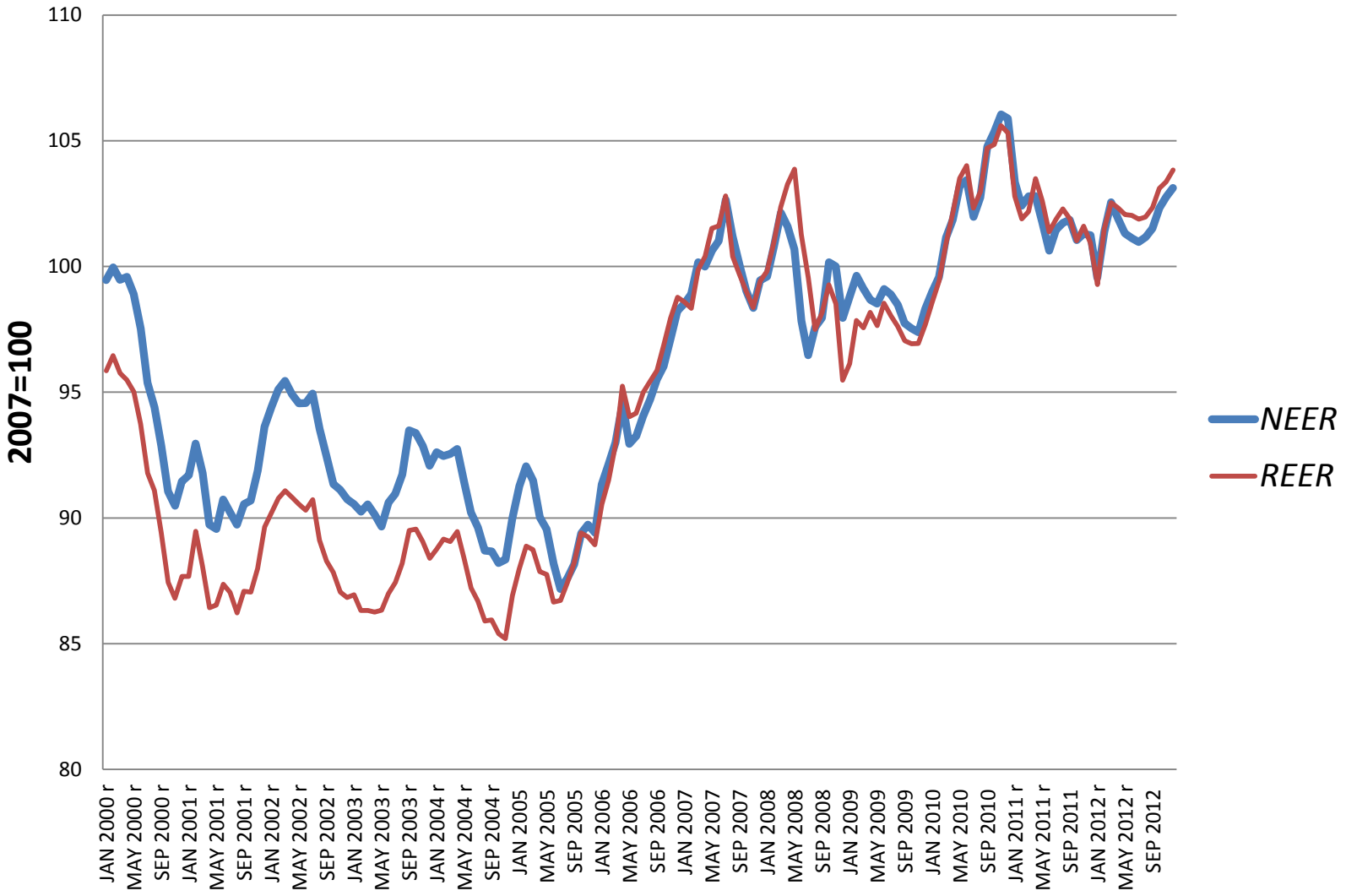
Economic crisis in 1997/98

- 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

From 1979 to 2013



Effective Exchange rates: 2000-2012
Appreciation: upward direction



$$NX = X - (\frac{eP_f}{P})M$$

- In the short run, P and Pf are unchanged as a result of an exchange rate depreciation.
- The relative price of import ePf/P rises.
- If the volume of imports does not change, their value measured in baht unambiguously increases, thus it is possible that devaluation in the short run causes deterioration in the trade balance (The J-curve Effect)
- In the long-term volume effects caused by price changes can be substantial and lead to the trade balance improvement caused by a favorable relative price change.

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).
- $\Delta NFA = \Delta H - \Delta DC$
- Δ 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 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 turmoil.
- The Nukul Commission Report views that political intervention has weakened the ability of the BOT's crisis management.
- ***Should the BOT has absolute independence from the control of the government?***
- Institution independence and policy instrument independence
- Correlation exists between central bank independence and price stability

Lesson 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?

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.

Premature liberalization

- Capital control relaxation undertaken when bank supervision and financial regulations are not sufficiently stringent; it can lead to over-borrowing and inefficient lending.
- A gradual approach to capital account liberalization should be adopted instead.

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.

Flexible exchange rate

- 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.

What is an appropriate level of the exchange rate?

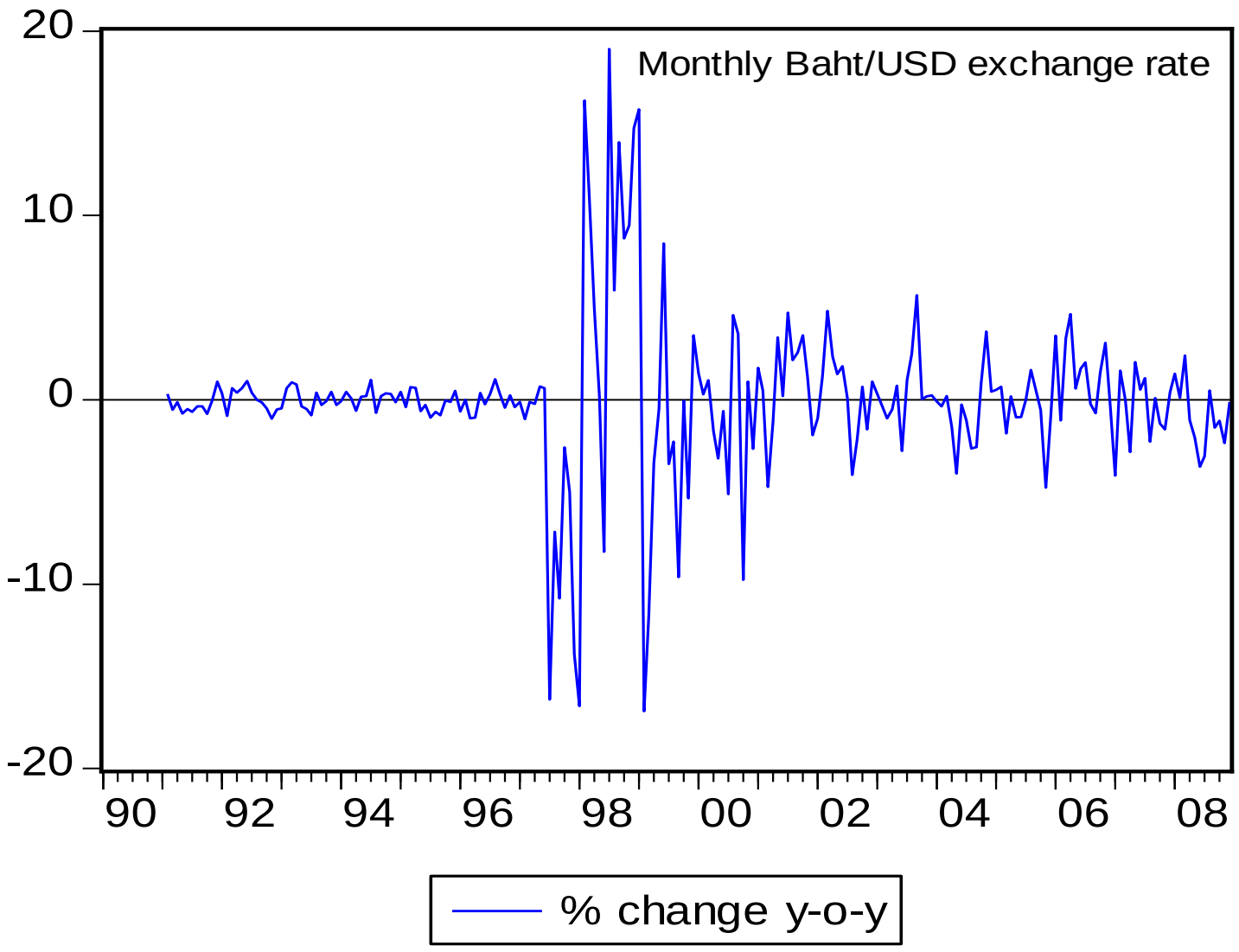
- It is exceedingly difficult to determine appropriate exchange rates using PPP or the current account balance.
- The cost of intervention in foreign exchange markets could be too high to warren the action.
- Intervention should not be employed to change the direction of exchange rate movements.
- There 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.


Monthly Baht/USD exchange rate
20
10
0
-10
-20
90
92
94
96
98
00
02
04
06
08
% change y-o-y

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.

Southeast Asian Experience in 1998 (%)

	Exchange Rate	GDP	**INVESMENT**	credit	Inflation
Indonesia	244.2	-13.1	-39.4	28.7	58.5
Malaysia	39.5	-7.36	-43.0	0.41	5.3
Philippines	38.7	-0.58	-16.3	-2.73	9.7
Singapore	12.7	-0.09	-13.3	18.2	-0.3
Thailand	31.9	-10.5	-50.9	-1.2	8.1

At the threshold

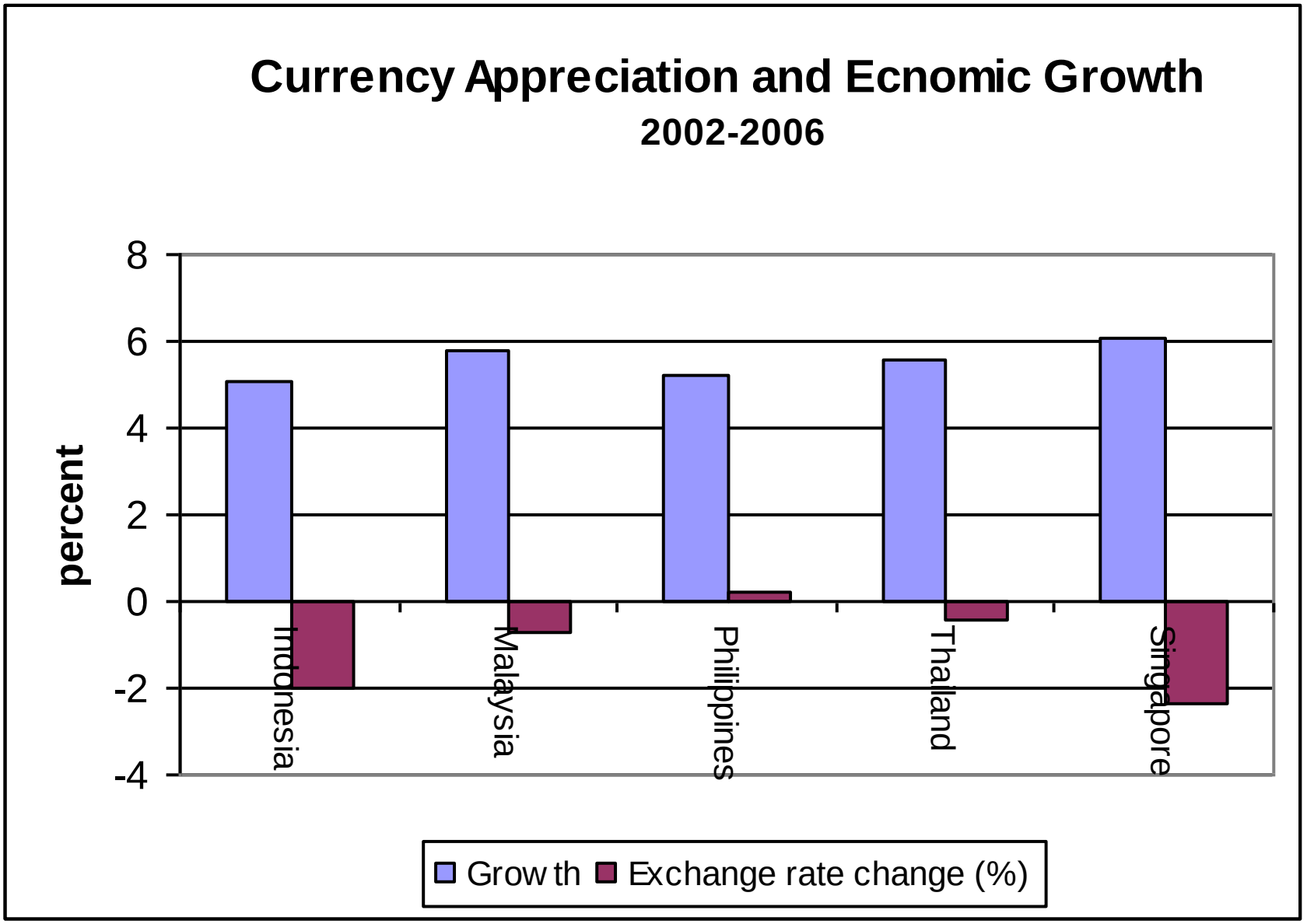
- Mild currency depreciation can stimulate growth through export expansion.
- Currency depreciation can be contractionary when the exchange rate depreciates substantially above the threshold level, causing bank credit crunch.
- Investment depends of availability of bank credit.

At the threshold

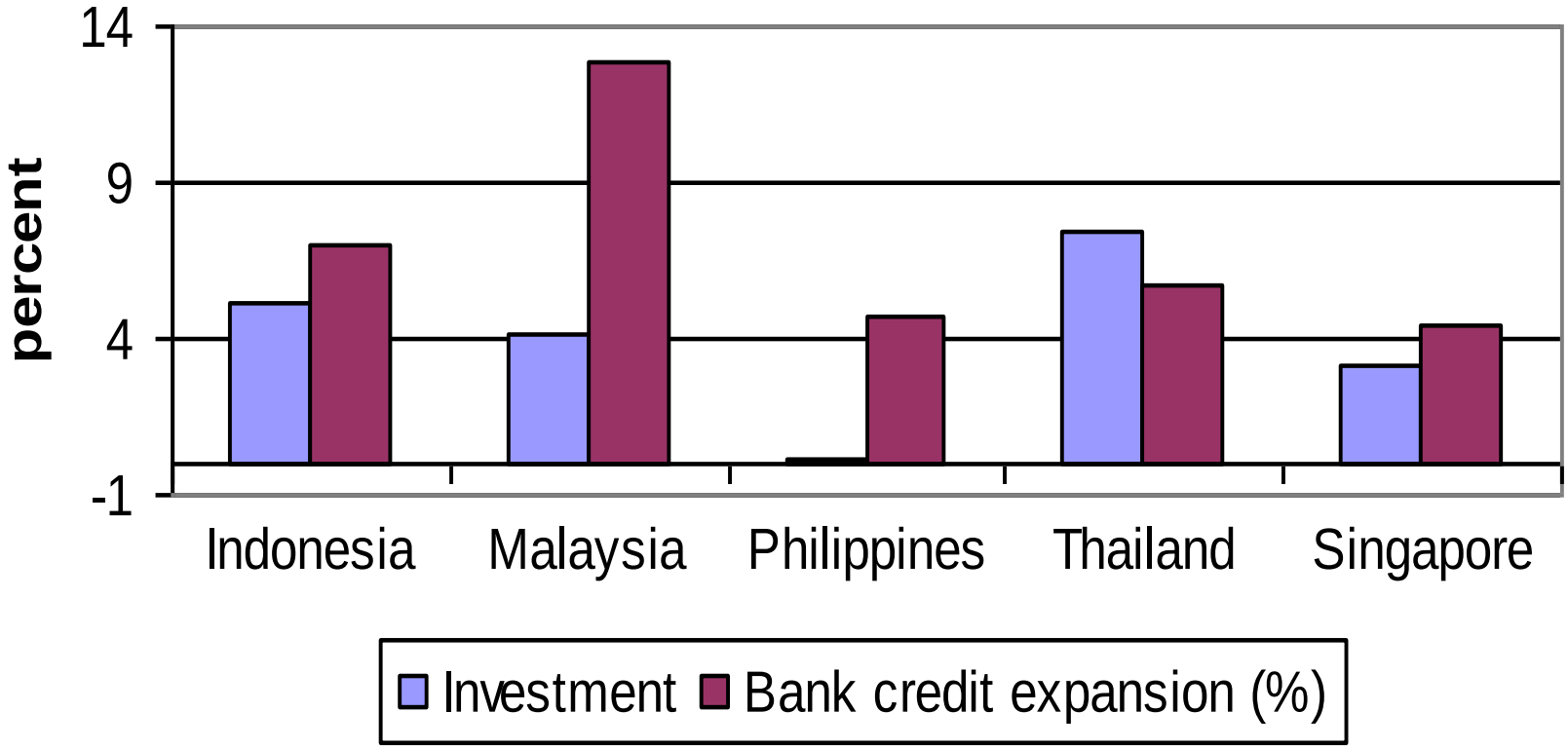
- If firms and banks accumulate large amounts of un-hedged foreign debt, a high rate of depreciation that exceeds the threshold level can trigger technical bank failure and thereby reduce bank lending.
- Shortages of loanable funds may arise from the redistributive effects of bank deposits and withdrawals 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.


Currency Appreciation and Ecnomic Growth
2002-2006
percent
8
6
4
2
0
-2
-4
Indonesia
Malaysia
Philippines
Thailand
Singapore
Growth
Exchange rate change (%)

Investment and Bank Credit expansion 2002-2006



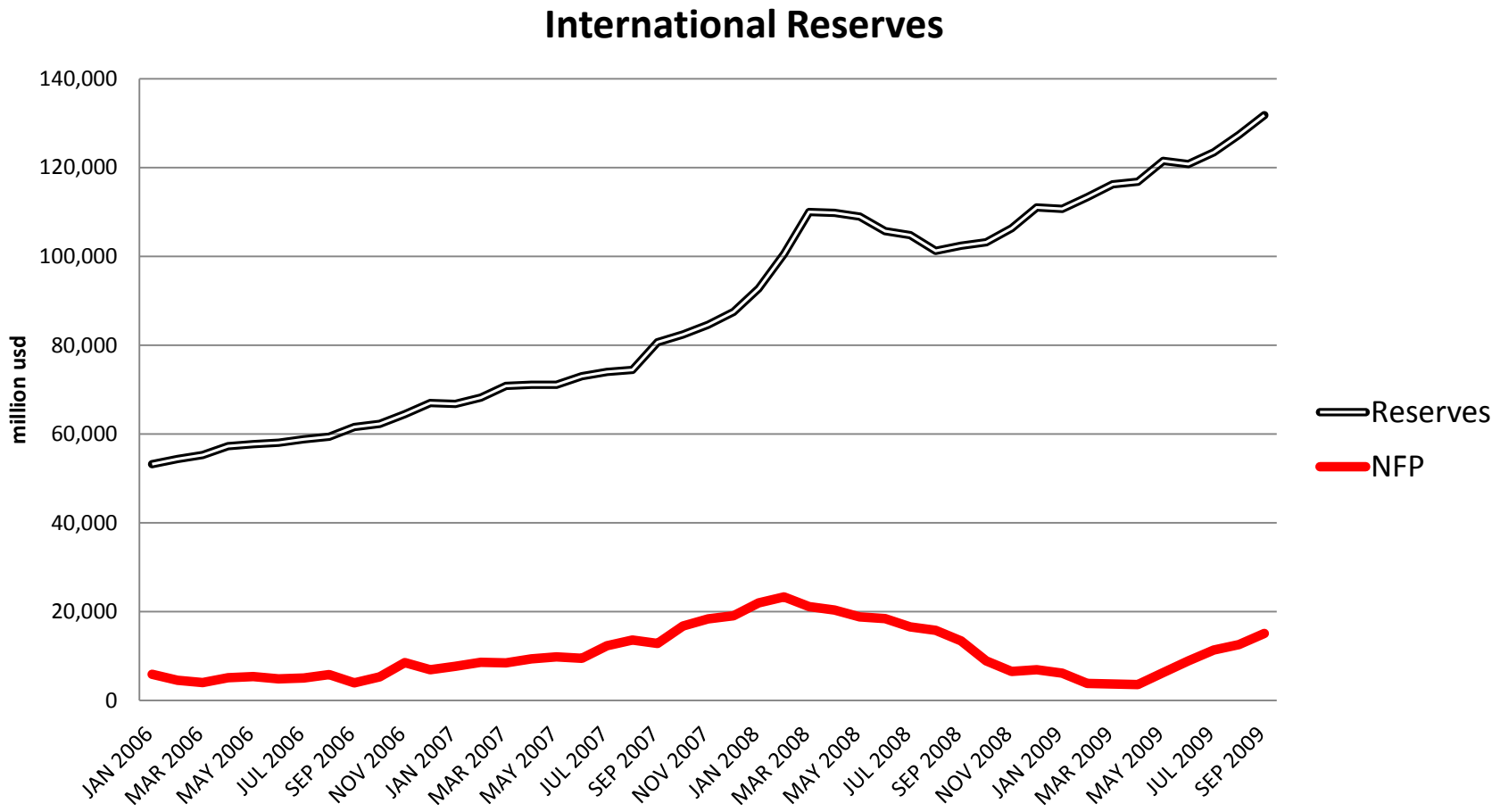
Should the baht be kept undervalued?

- 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.

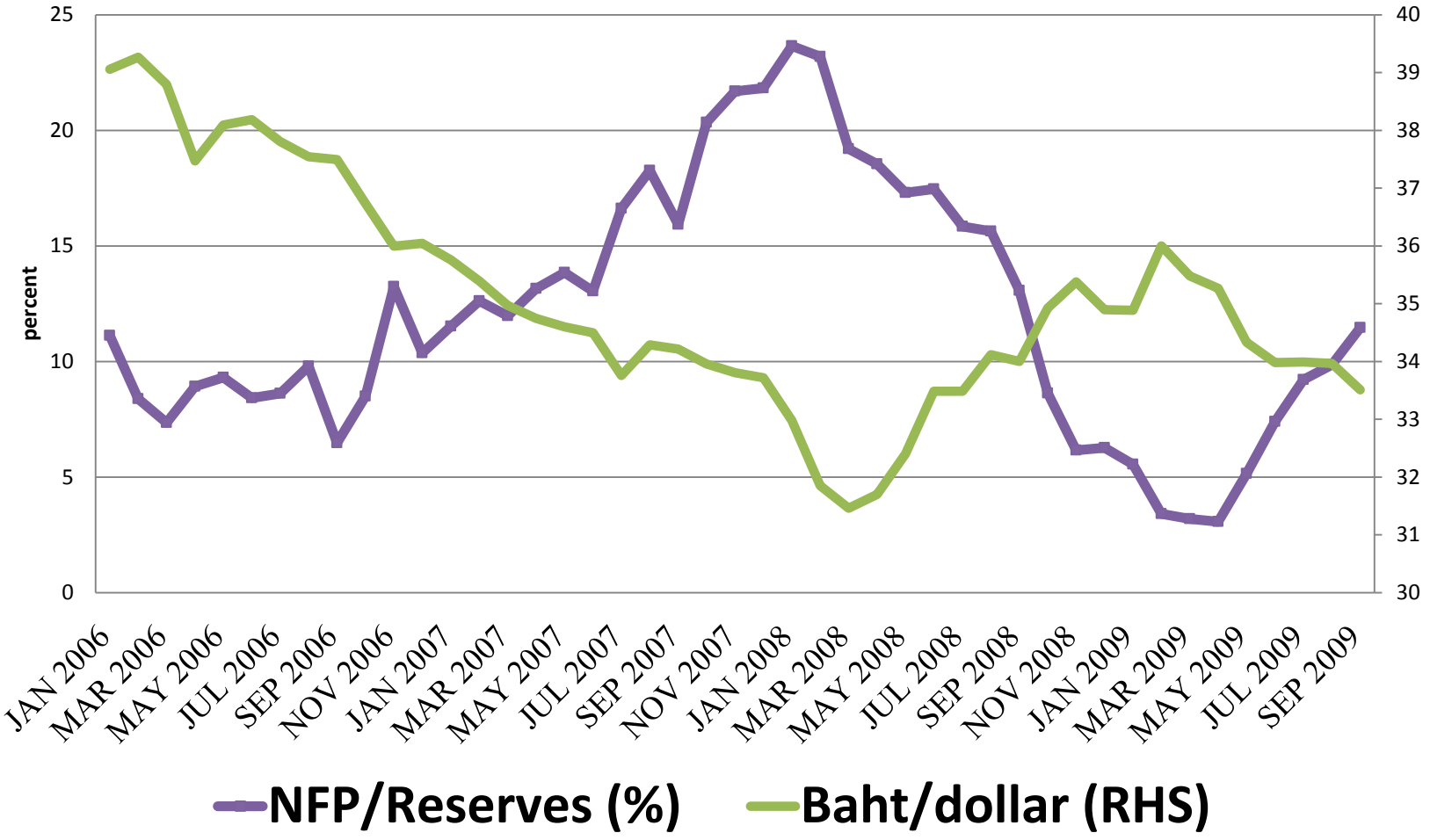
Determinants of the baht-dollar exchange rate

- 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)?

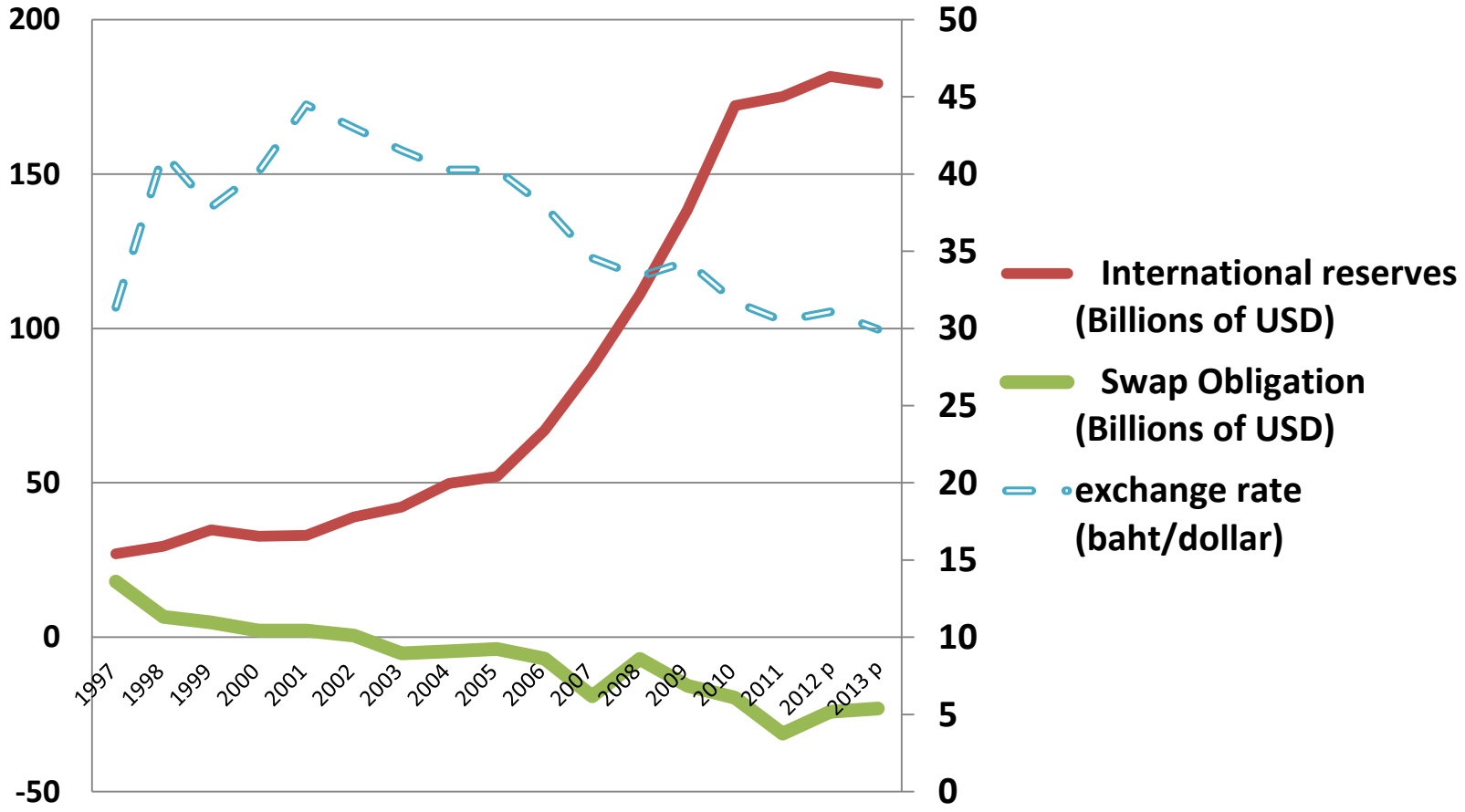
Recent intervention in the forward market



Net Forward Position



Exchange rate intervention



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 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 2013 and 2014?