

# EE460: Thai Economy

## Coping with the 1998 crisis

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Lecture 5

# 19 years later

	<b>December 1997</b>	<b>July 2014</b>	<b>Jan 31 2016</b>
Baht/dollar	55.5	32.6	35.8
International Reserves	\$27 million	\$167.5bn	\$156bn

# Outline

- Consequences of capital inflows
- Macroeconomic management and sustainable growth
- Export supply and demand functions
- The roots of the financial crisis
- V-shaped recovery
- Lessons from the 1998 crisis
- Debt deflation

# African countries can learn valuable lessons from the rise and fall of Southeast Asian economies

African countries can learn some valuable lessons from the rise and fall of Southeast Asian economies. It can be argued that macroeconomic stability was the cornerstone of the rapidly rising per capita income in Southeast Asian economies between the 1980s and the early 1990s. Successful financial liberalization requires price stability in terms of low and controllable inflation rates. Inflows of foreign direct investment, which enhance factor productivity through technology transfer, require a stable macroeconomic environment in host countries in the forms of sustainable current account deficit and stable exchange rates. The cost of external funds can be reduced by establishing exchange rate stability, since the forward premium of the exchange rate would be small. Thus macroeconomic stability facilitates rapid growth for developing countries, even if some developing countries are constrained by low level of domestic savings. Economic growth in Southeast Asia was driven mainly by rapid expansion of the industrial sector, which was stimulated by foreign direct investment. The output growth was the result of increasing both the quantity and productivity of labour.

# Lessons from the rise and fall of South East Asian Economies

- Macroeconomic stability is the cornerstone of rapidly rising per capita income.
- Economic growth is driven by industrial sector, which is the result of rising FDI.
- Output growth is generated by increasing quantity of factor of production as well as rising labor productivity.

# Changing structure of capital flows

% of total

■ FDI   ■ Loans   ■ Portfolio investment



1990-1996

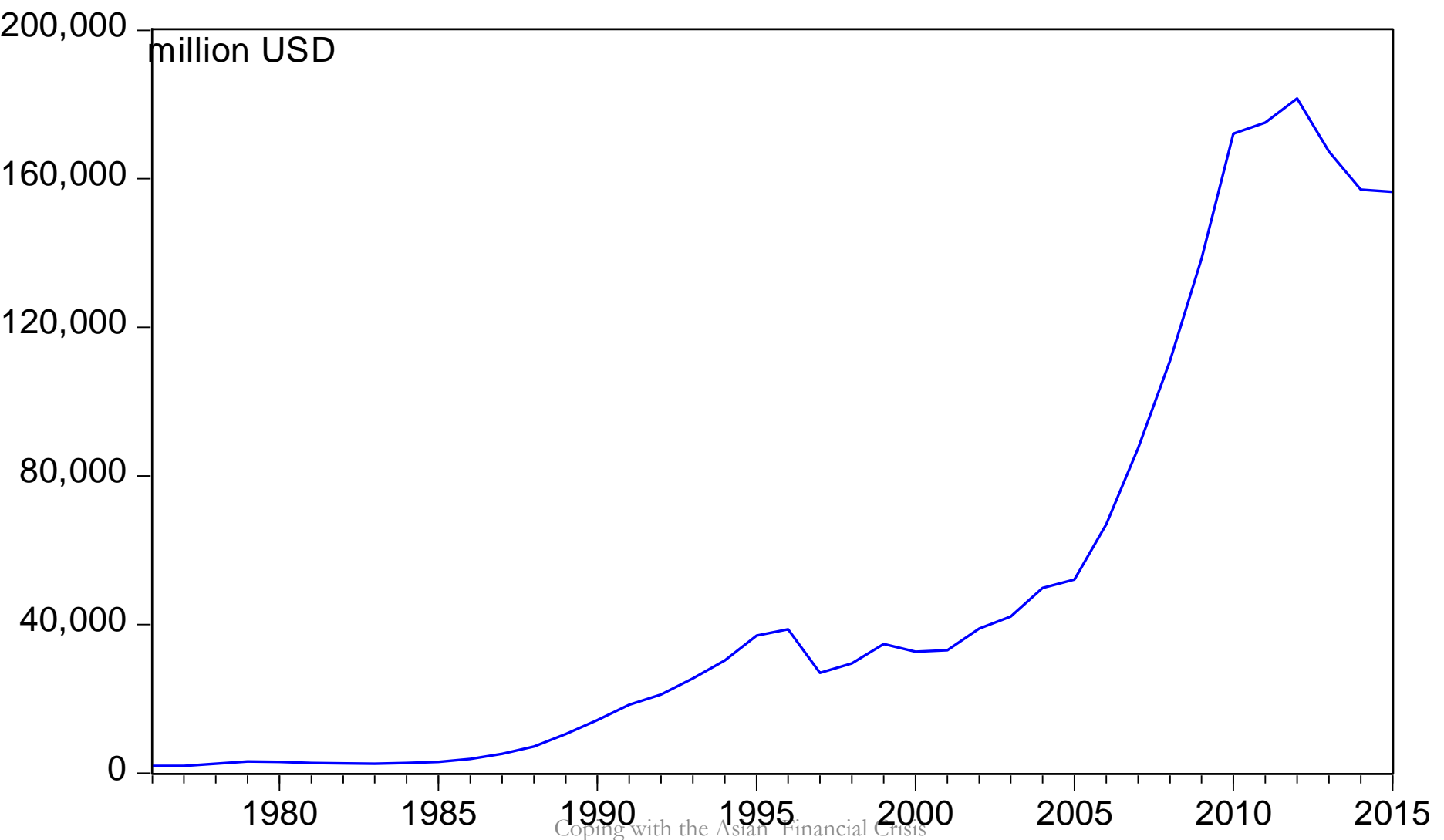
1997-1998

1999-2006

2007-2009

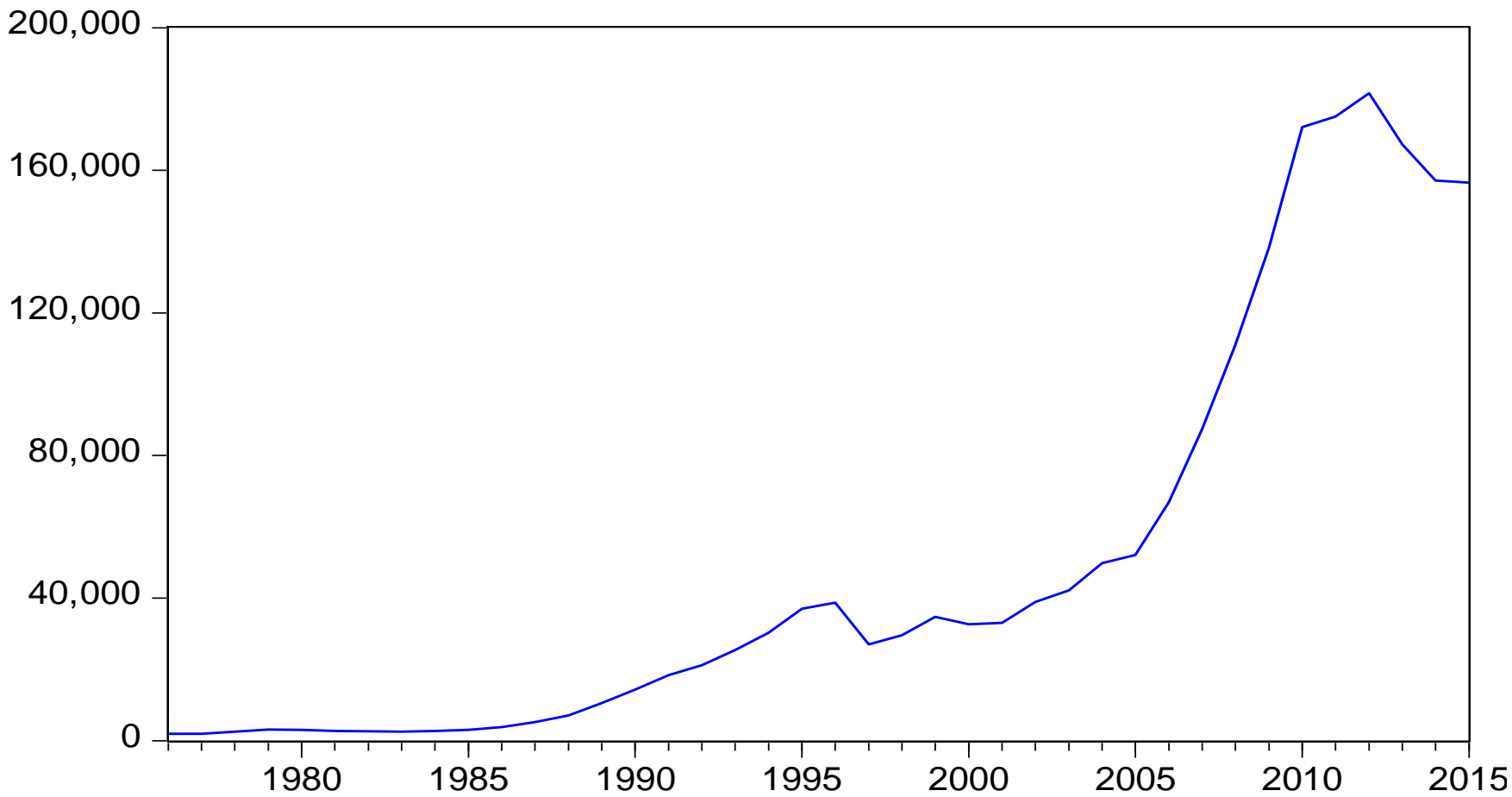
*Bonus Question: How about 2010-2015?*

# RESERVES



# International Reserves

(Million USD)



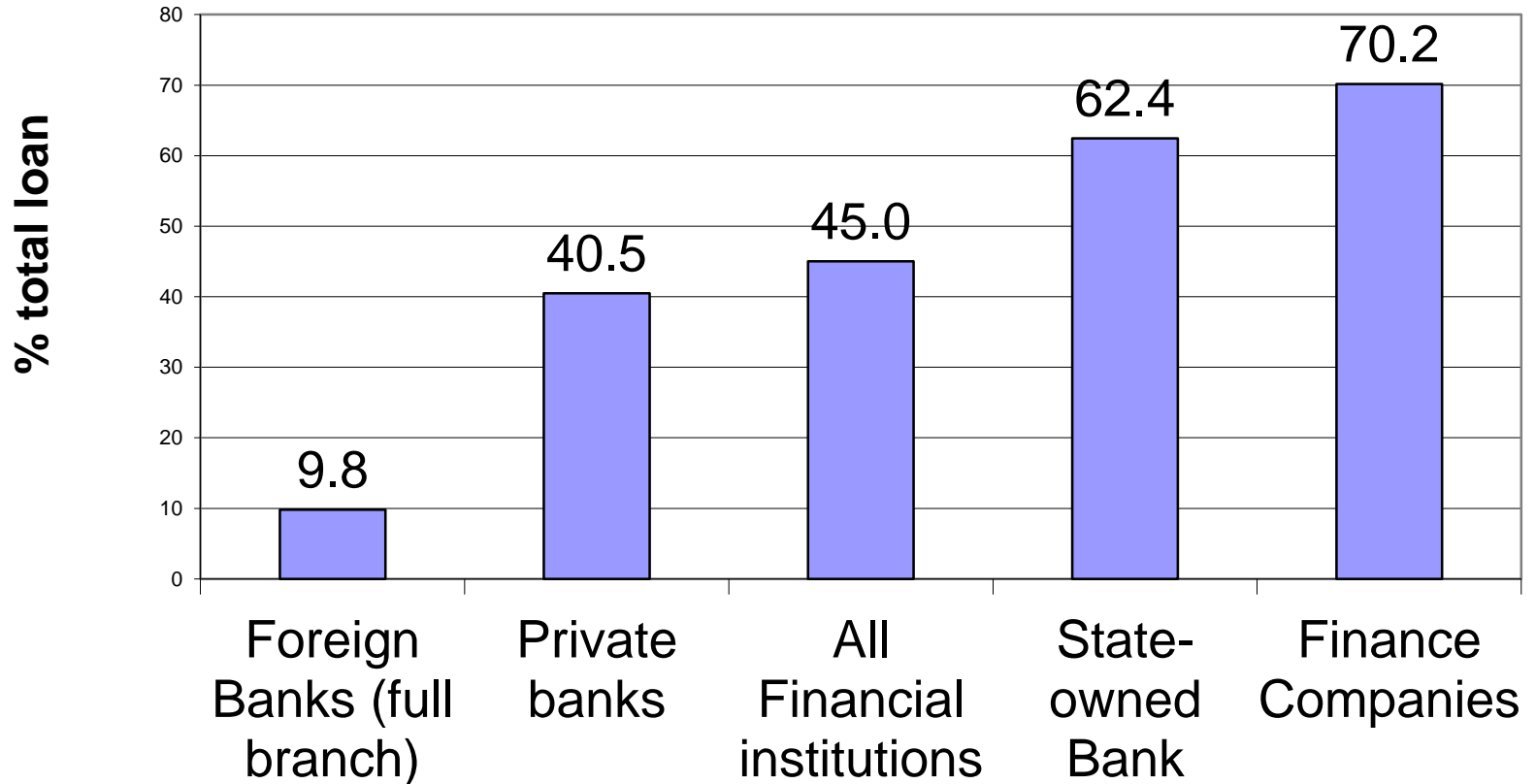
# Adverse Consequences of Capital Inflows: Dutch disease

## CONCLUDING REMARKS

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. The rise in capital inflows stemmed from external and internal factors. A decline in world interest rates widened the interest rate differentials, inducing excessive foreign borrowings. Also, domestic financial liberalization increased the sensitivity of capital flows to the interest rate differential. High economic growth in Thailand in the early 1990s also contributed to the surge in capital inflows. Finally, the measures undertaken to establish Thailand as a regional financial centre induced short-term capital flows through offshore borrowings by the nonbank private sector.

The surge in capital inflows caused a Thai case of 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. Moreover, capital inflows relax liquidity constraints and stimulate over lending by commercial banks, resulting in a decline in the private savings rate. Although capital flows

# Non-performing loans in 1998



## Lessons from the Currency Crisis

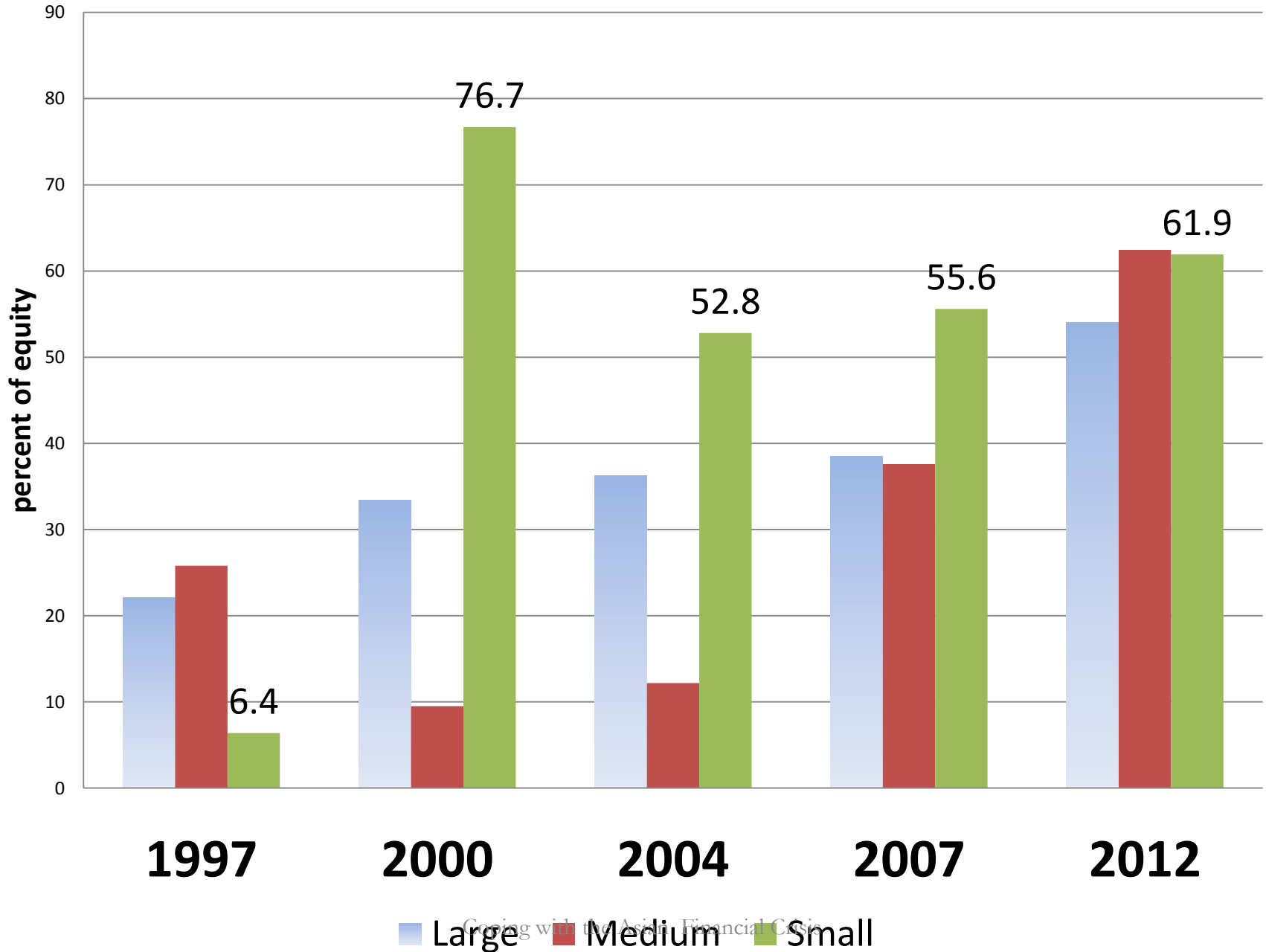
Thailand's experience of currency crisis shows that capital inflows can have both positive and negative impacts. Thailand should have allowed the baht to appreciate during the boom years and should have been satisfied with a lower growth rate. Even if appreciating currency discourages exports, it is better to live with the resulting lower output growth rate and lower level of foreign debt. In addition, capital control relaxation undertaken when bank supervision and financial regulations are not sufficiently stringent can lead to over-borrowing and inefficient lending. A gradual approach to capital account liberalization should be adopted instead. Furthermore, since international 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 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.

January 1998

# Lessons from the currency crisis

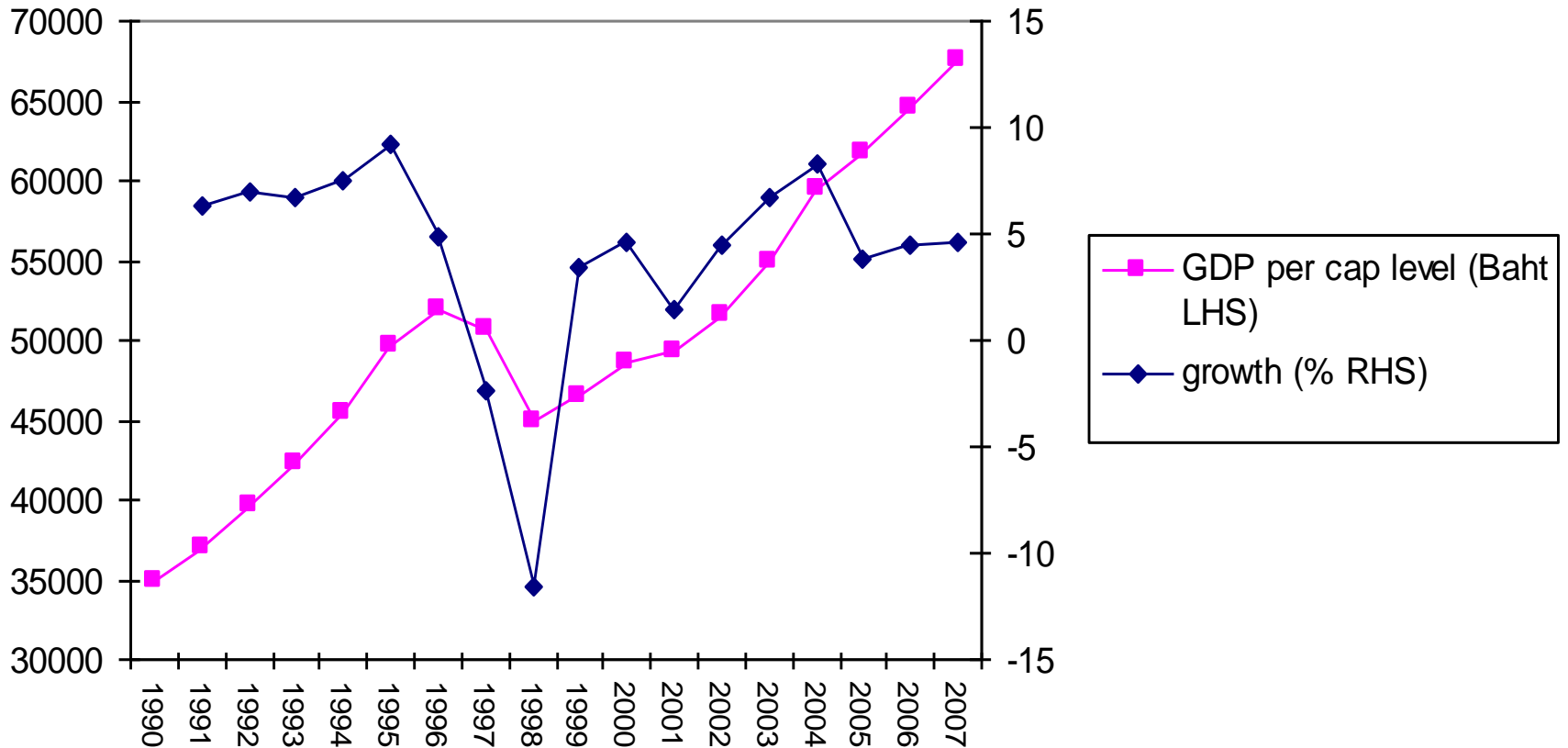
- If the baht should have been allowed to appreciate in the early 1990s when facing massive capital inflows.
- A gradual approach to capital account liberalization is preferable to a big bang approach.
- Accountability is required so that gambling behavior to defend the baht to get out of a crisis could have been avoided.

# Foreign Ownership in Thai Banks



# The V-shaped recovery

Real GDP per capita



# Shocks and adjustments

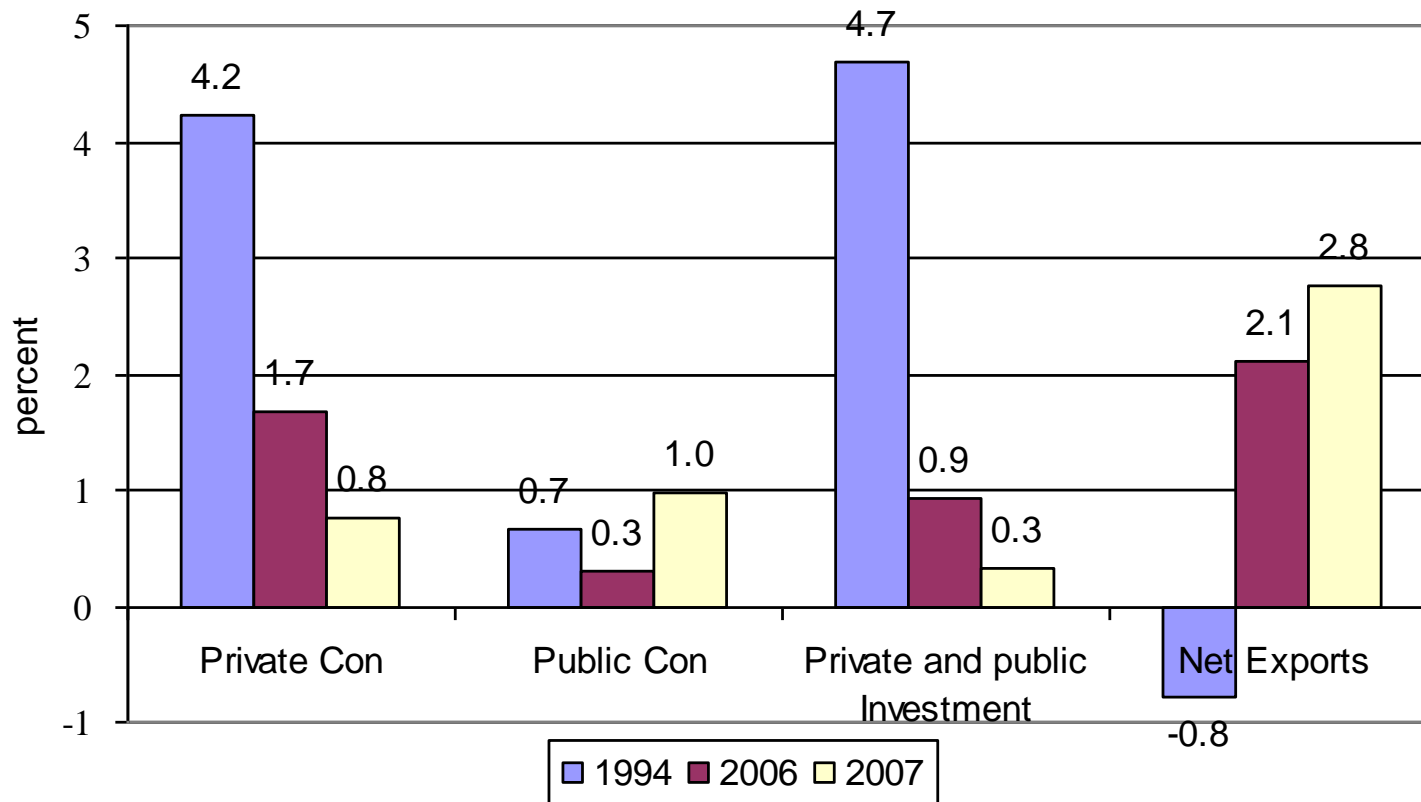
- There exist certain **mechanisms** in the structure of the Thai economy that would lessen the impact of the next economic crisis, whether the shock is internal or external.
- These shocks would not have a long-lasting impact and would simply reduce growth temporarily below a stable growth path.
- The adverse impact of shocks was mitigated by the resilient agricultural sector
- Regained the pre-shock growth part in a few years.
- ***Did that mechanism operate in 2009 and 2015?***

# O learned Thailand

- The Asian currency crisis followed Thailand's decision to float the baht in July 1997.
- What went wrong?
- What could have been done to prevent the crisis?
- The original sin
- The impossible trilemma for an open economy

# Sources of growth: 1994, 2006, 2007 net exports = exports-imports

Growth Decomposition

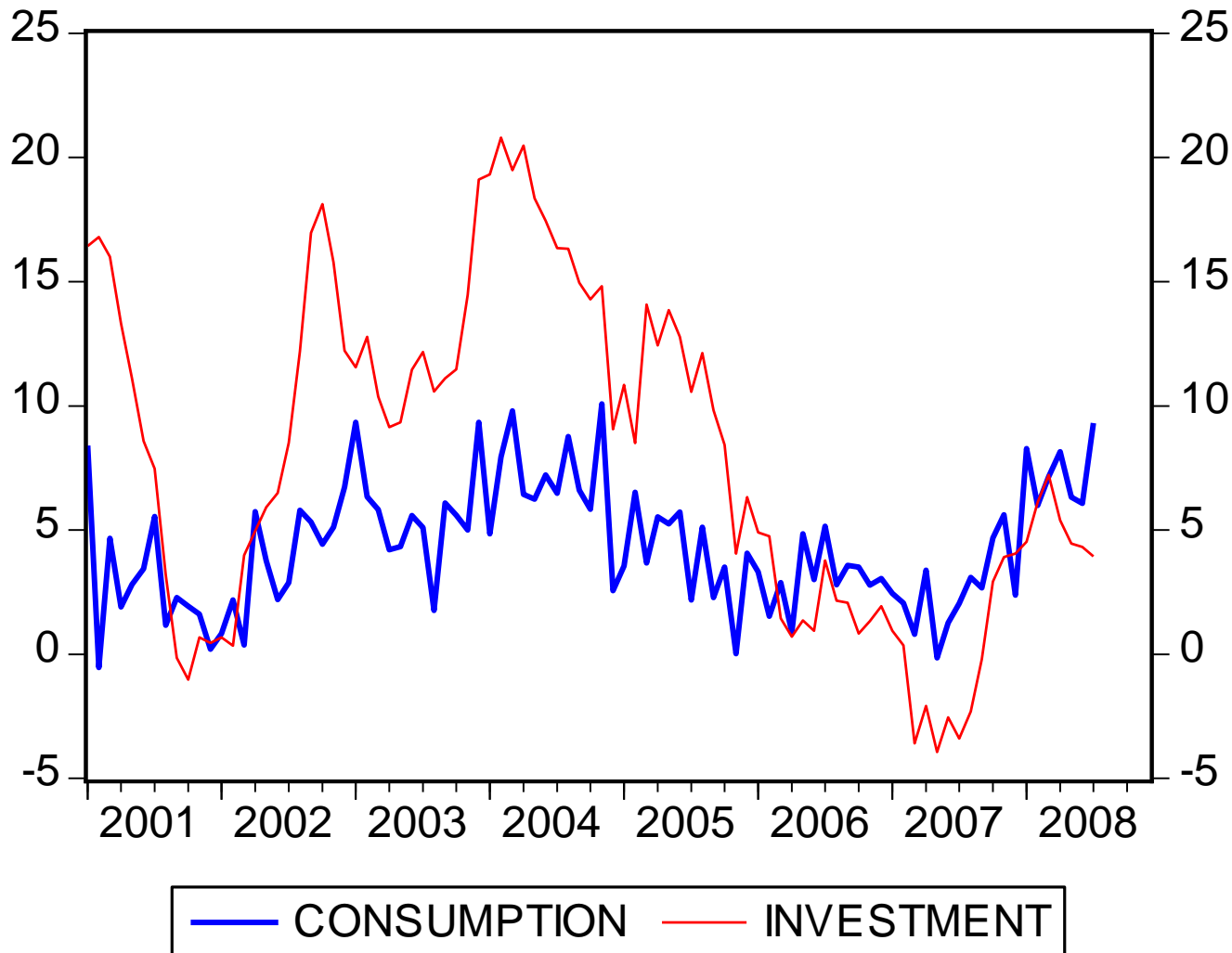


Source: Calculation based on NESDB data

Coping with the Asian Financial Crisis

# Granger Causality: Long run relationship

Data on *investment expenditures in the past can be used to predict current and future consumption*



# Trend (exponential) growth rate

percentage

January 2000-December 2008

	Consumption	Investment
Mean	4.4	7.9
SD	2.4	6.6
CV=Mean/SD	0.54	0.83

# The labor market

- The flexibility of wage rates in Thailand helped mitigate the damaging effect of a sharp fall in output in the aftermath of currency crisis.
- What if downward rigidity exists?
- Unemployment has declined as the economy gradually recovered.
- Inflation remained subdued compared with global inflation
- The resulting fall in domestic interest rates enabled Thai firms to restructure their foreign debts, thereby reducing the degree of vulnerability to **the global financial crisis (2007-2009)**.

# Responses in the agricultural sector

- The agricultural sector has been supporting the Thai economy by generating high income through out the early 2000s.
- Agricultural output responded positively to high prices for world commodities.
- The agricultural sector generates demand for manufactured products and provides a steady pool of labor for the manufacturing and service sectors.
- It can act as a shock absorber during the time of recession: no body dies of starvation.

# Dynamism of the industry sector

- Export-oriented industries had raised output level far above the pre-crisis period.
- These industries were able to respond to the growing demand generated by the upturn in the business cycle.
- The role of foreign direct investment is crucial to the industrial development in Thailand.
- The consistently open policy towards FDI has contributed to continued flows of **technology transfer** and **spillover effect** into local industries.

# Growth rate by sector

## 1990-2007

	Agriculture	Industry	Services
<b>Growth</b> $\mu$	1.8	6.8	4.6
$\sigma$	5.7	6.5	4.9
$\sigma / \mu$	3.2	0.95	1.1
<b>Correlation coefficient between the service sector)</b>	-0.12	0.91	

# Changing vs. switching expenditure policy

- To restore both external and internal balances, domestic demand (sum of consumption, investment and public spending) and the exchange rate must be allowed to play an equilibrating role .
- To reduce the current account deficit:
  - (1) imports must be reduced through output contraction (cut down domestic absorption);
  - (2) exchange rate must depreciate to switch spending from imports to domestic goods.

# Export Demand Function: substitution and income effects

$$\ln(X) = \alpha - \beta \cdot \ln[(P_T/e)/P_w] + \gamma \ln(Y_w) + v$$

$\gamma$  = income elasticity of demand for Thailand's exports

$\beta$  = price elasticity of demand for Thailand's exports

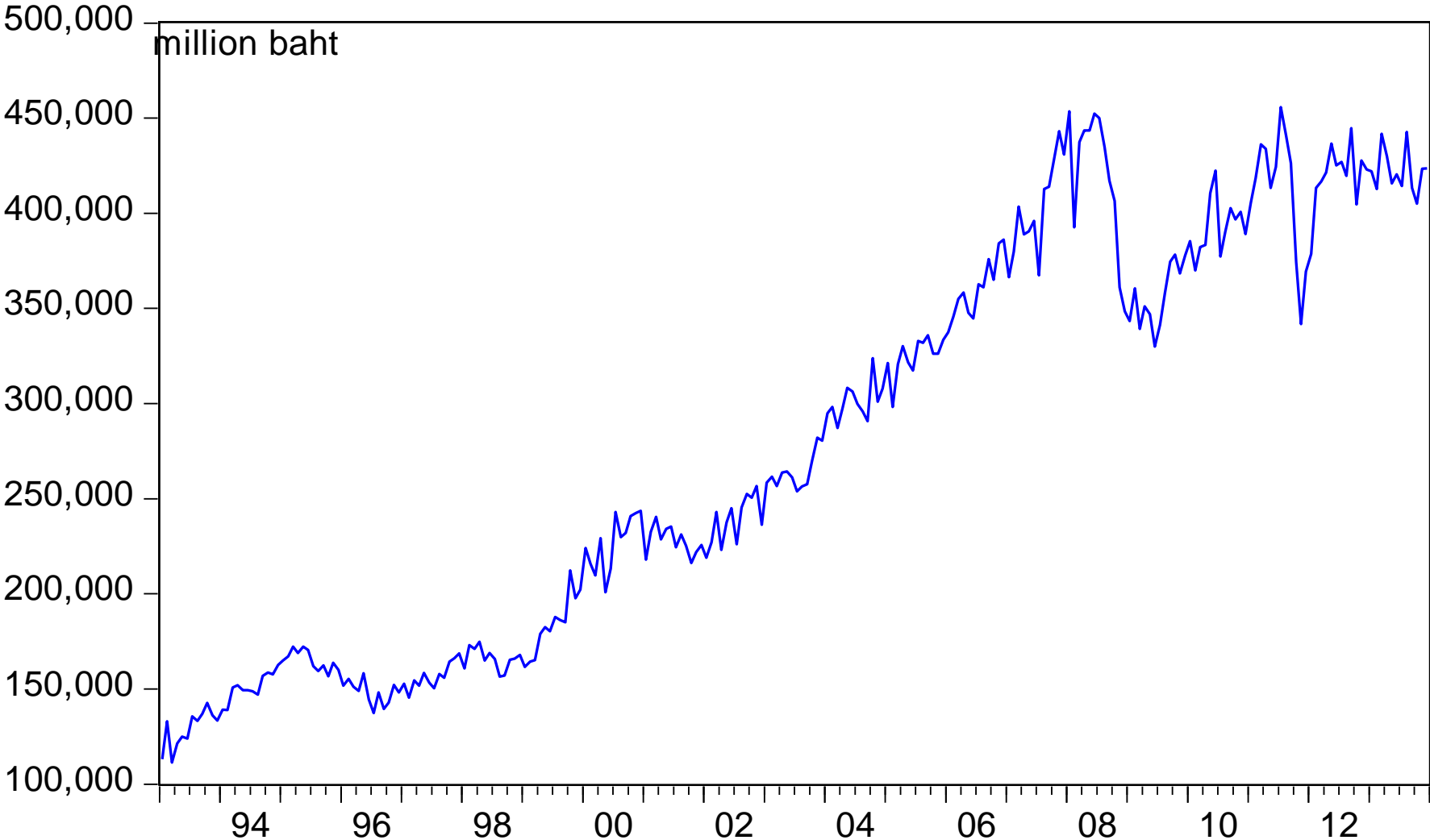
$e$  = Baht/\$

$P_T$  = Thailand's export price (in baht) index

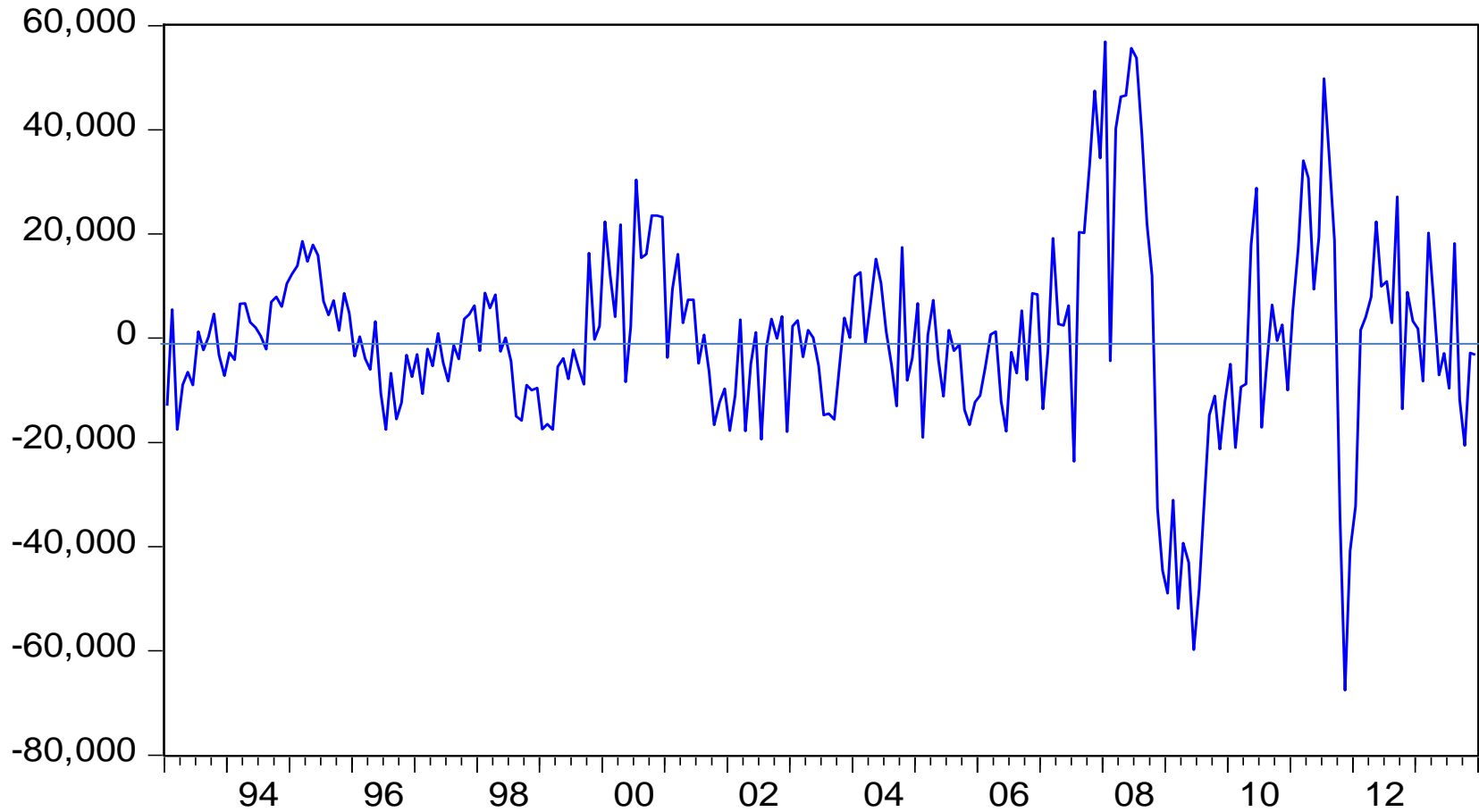
$Y_w$  = World income in dollar

$P_w$  = world price index

# EXPORTS



# Deviations from trend exports



# Import Demand Function: Income and substitution effects

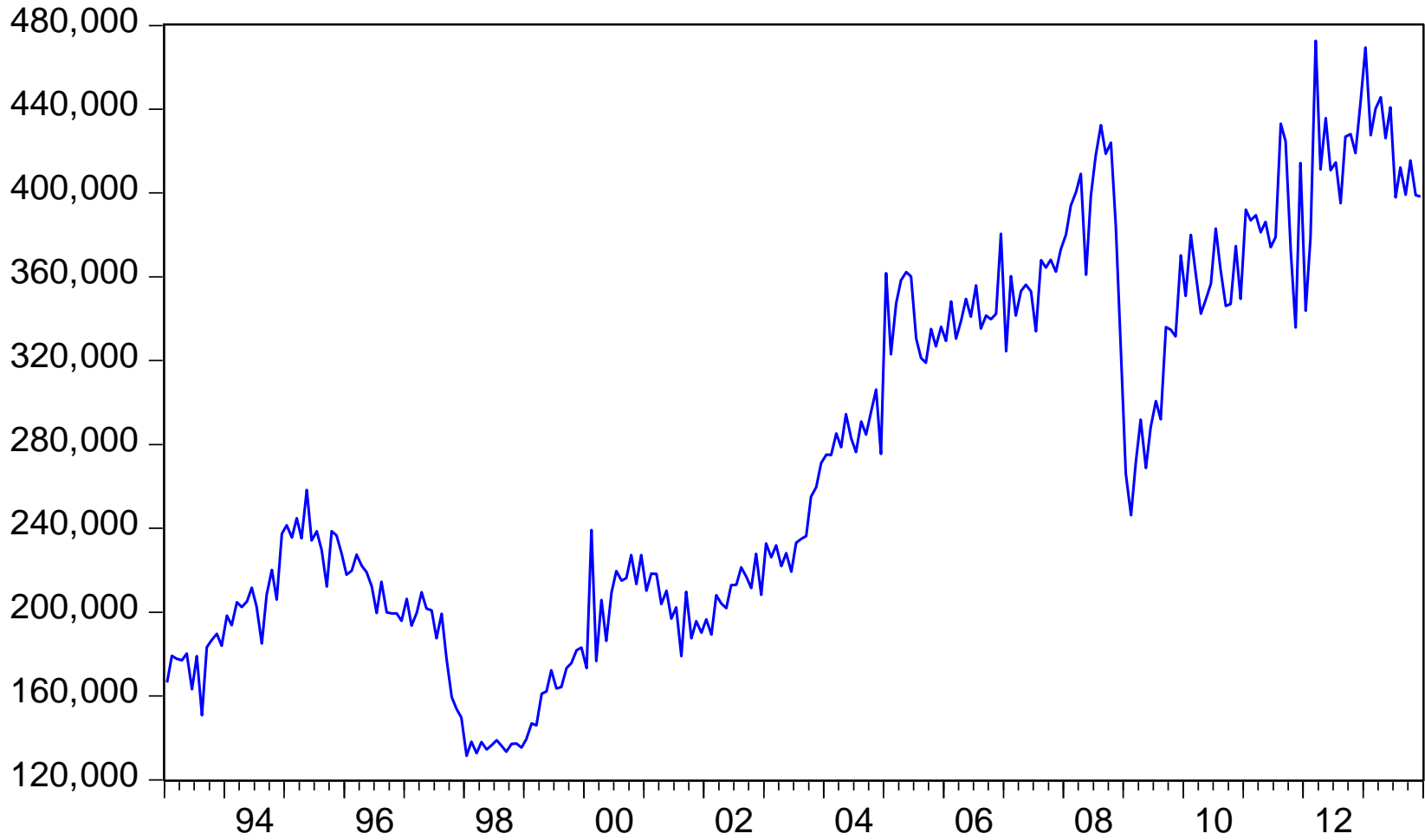
$\tau$  = Tariff rate,  $Y_T$  = Thailand's income

$P_m$  = import price in USD

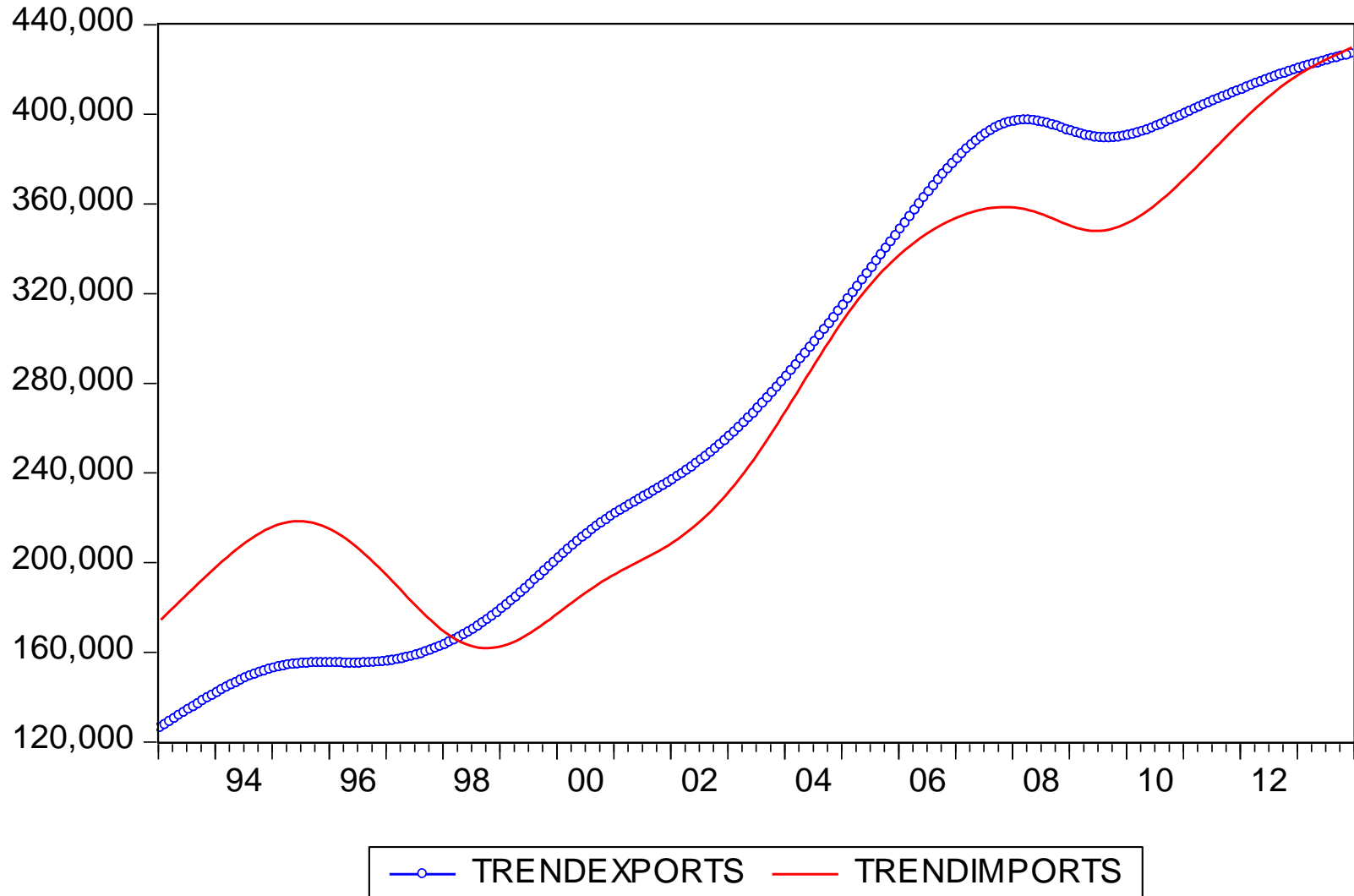
$$\ln(IM) = \mu - \theta \ln[(1 + \tau)(eP_m/P_T)] + \eta \ln(Y_T) + ..$$

Implications of the size of trade elasticities

# IMPORTS



# Unsustainable Current Account Deficit



# Economic Crisis

- A fixed exchange rate regime created an illusion of a zero foreign exchange rate risk.
- Premature relaxation of capital controls over borrowing in foreign currencies.
- The export shortfall in 1996 and widening current account deficit raised doubt about the sustainability of the baht currency peg.

# Currency and financial crises

- With the baht succumbing to speculative attacks, the Bank of Thailand decided to float the baht on 2 July 1997.
- Without a nominal anchor and given the lack of policy credibility, the value of the baht fell 56% through January 1998.
- This large currency depreciation aggravated the foreign debt burden, causing a credit crunch, bankruptcy, and financial disintermediation.

# When consumer confidence plummets

- The loss of consumer and business confidence stemming from the expected recession *exacerbated* the contraction in consumption and investment.

How do we measure business sentiment?

# Pigou Effect

- Consumption =  $f(\text{Net Wealth}/P)$
- In theory, as prices fall during recession, consumption can increase as real wealth increases.
- In practice, prices do not fall large enough to stimulate consumption to move the economy out of recession.
- Irving Fisher (1933) Debt-deflation theory of great depressions, *Econometrica* (1) no.4

# Negative wealth effect: impact of price deflation on real debt

- If net wealth is negative due to rising foreign debt caused by massive devaluation, real debt burden increases when price level falls.
- Hence price deflation increases real value of debt, leading to further contraction of consumption and contraction of output.
- Until the exchange rate rebounded to the level determined by economic fundamentals, the economy will continue this debt-deflation episode.

# Debt-deflation episode in Thailand

*A fixed exchange rate regime can create an illusion of a zero-exchange rate risk, while premature relaxation of capital controls can encourage overborrowing in foreign currencies. Currency and maturity mismatching of Thai commercial banks generated their overexposure to external shocks. The export shortfall in 1996 and widening current account deficit raised doubts concerning the sustainability of the baht currency peg. With the baht succumbing to speculative attacks, the Bank of Thailand decided to float it on 2 July 1997. Without a nominal anchor and given the lack of policy credibility, the value of the baht fell by 56% through to January 1998. This large currency depreciation aggravated the foreign debt burden, causing a credit crunch, high interest rates, bankruptcy, and financial disintermediation. The loss of consumer and business confidence stemming from the expected recession exacerbated the contraction in investment and consumption. Until the exchange rate rebounds to a level determined by economic fundamentals, the economy will continue this debt-deflation episode.*

# Review questions

- How did Thailand cope with the Global Financial Crisis (GFC)?
- Did Thailand learn any lessons from the past mistakes?
- How resilient is the Thai industry when facing external shocks (China slowdown in 2015)?

# Review questions

- What are social implications of Thailand's economic fluctuations?
- How important is the role of macroeconomic policy management for long term growth?