EE460: Thai Economy
Coping with the 1998 crisis

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Lecture 5

Outline

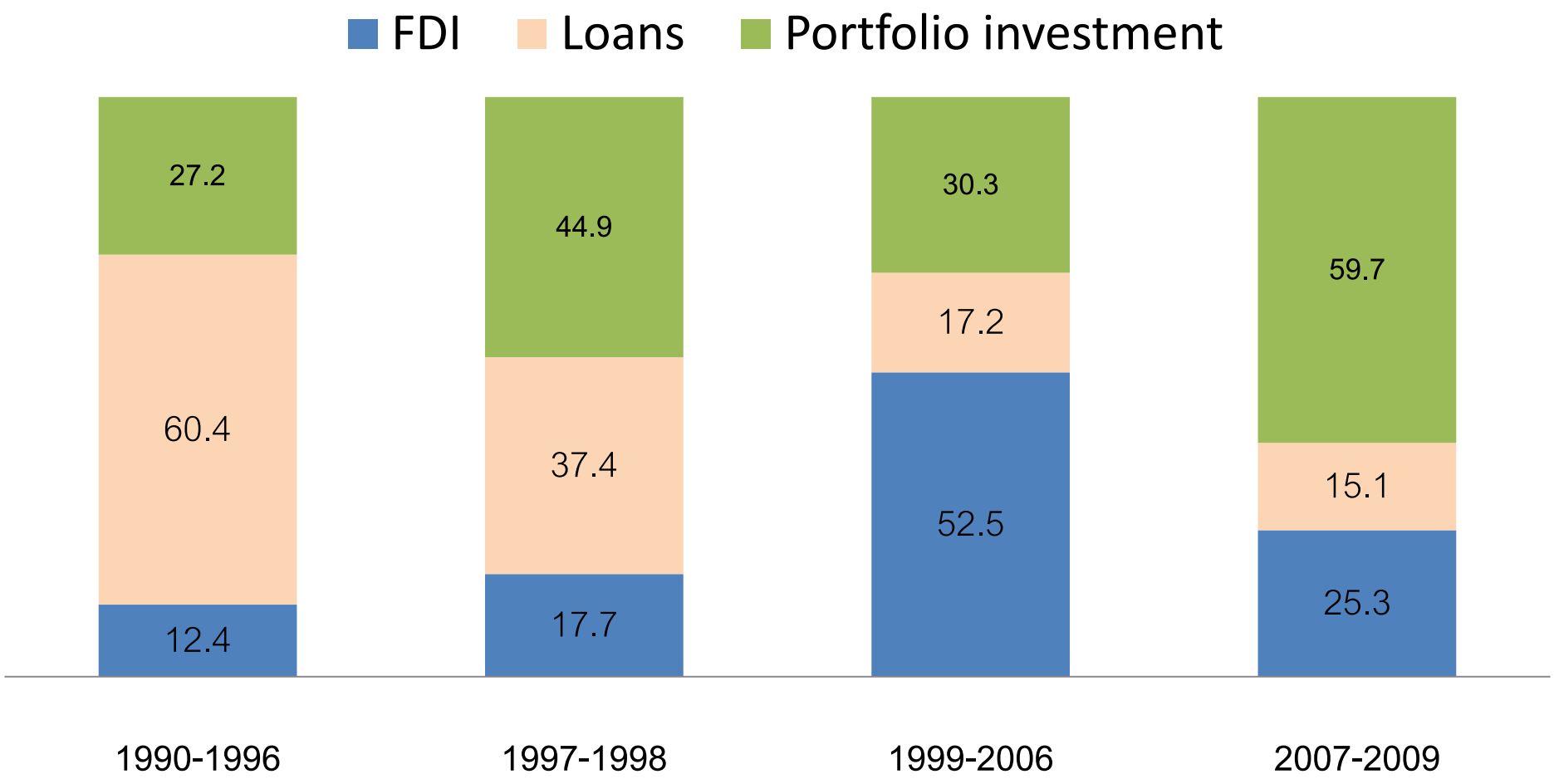
- Macroeconomic management and sustainable growth
- The roots of the financial crisis
- V-shaped recovery
- Lessons from the 1998 crisis
- Growth accounting
- Debt deflation episode
- Underground economy

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.

Changing structure of capital flows

% of total



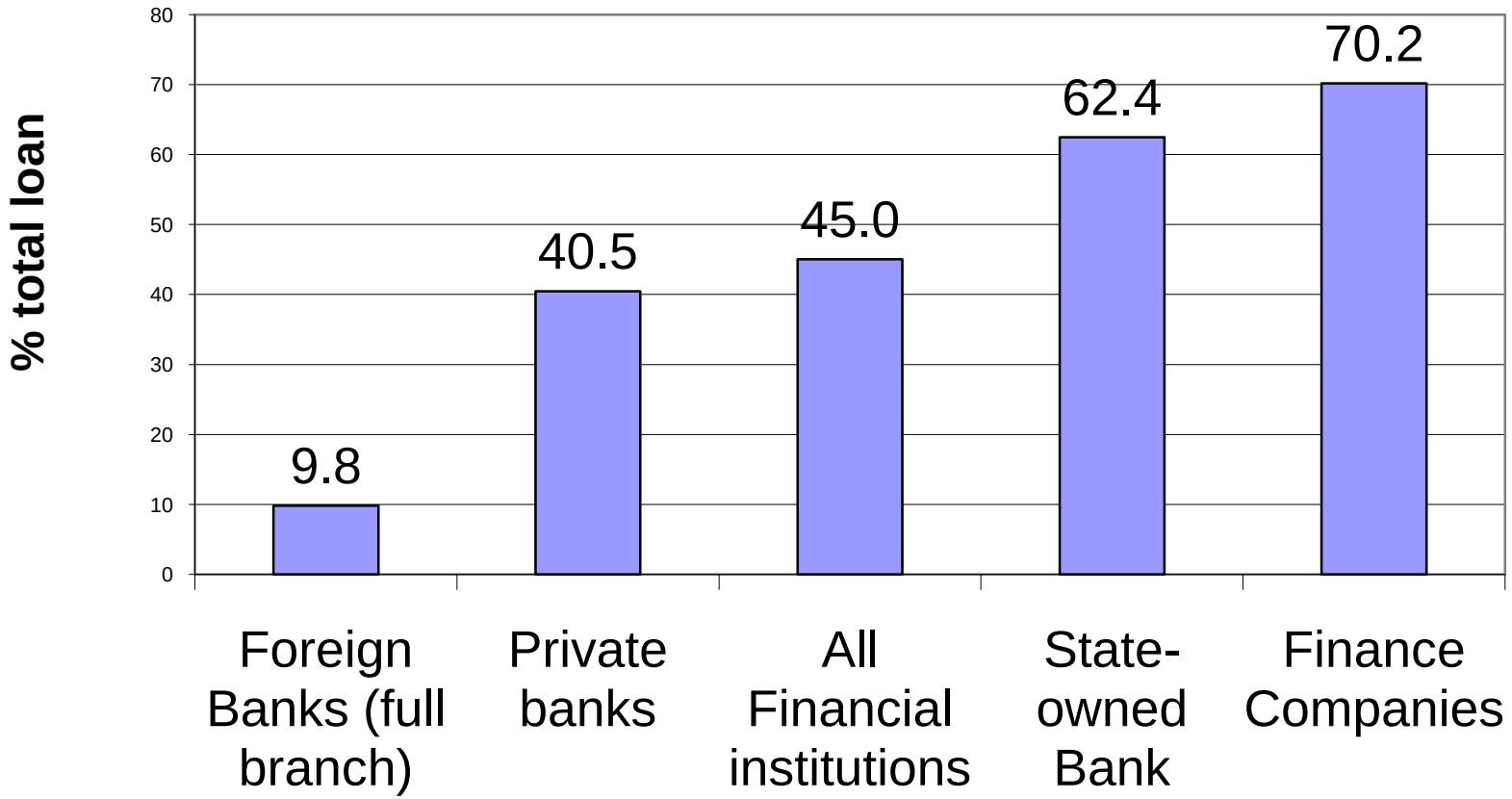
Adverse Consequences of Capital Inflows

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

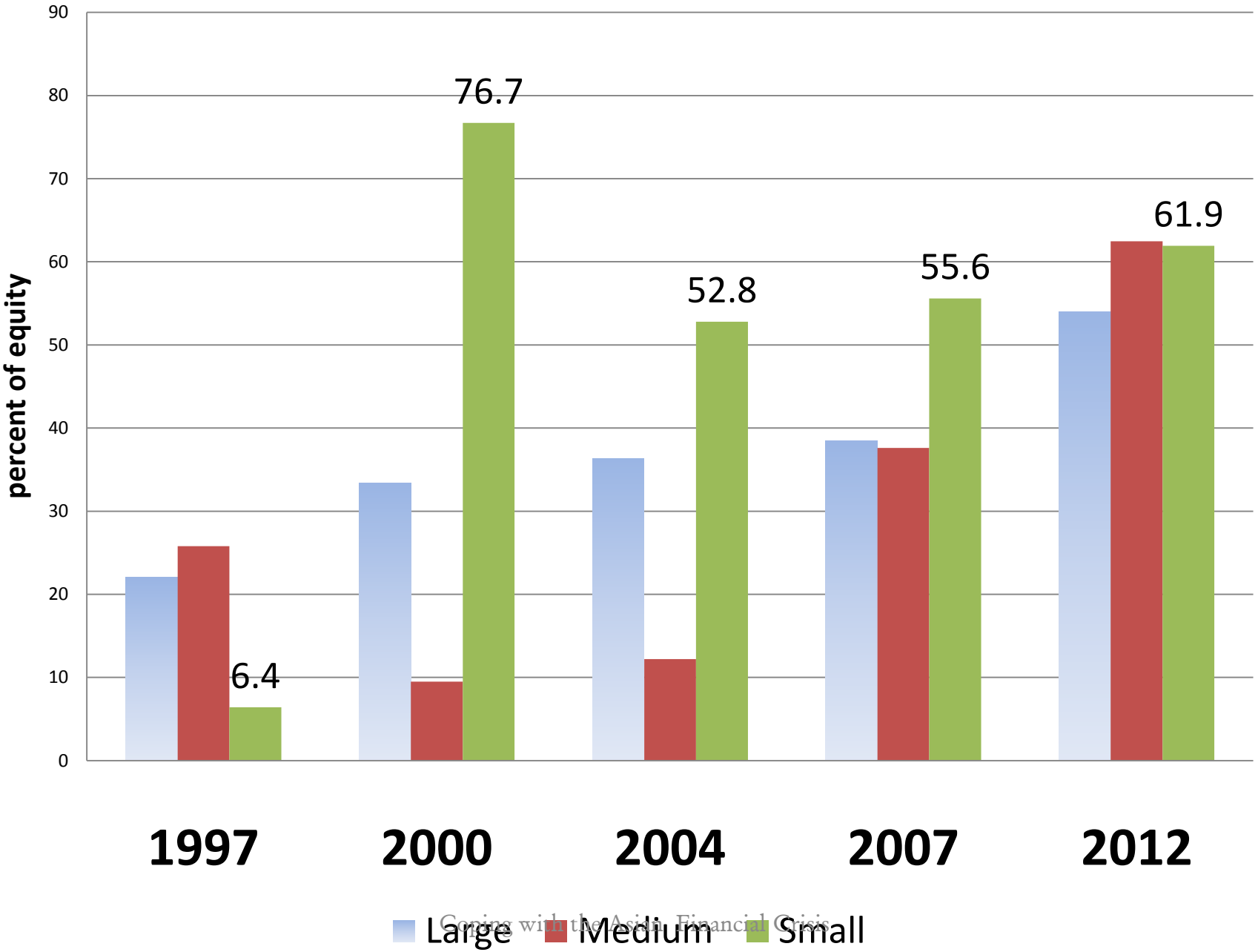


Lessons from the Currency Crisis

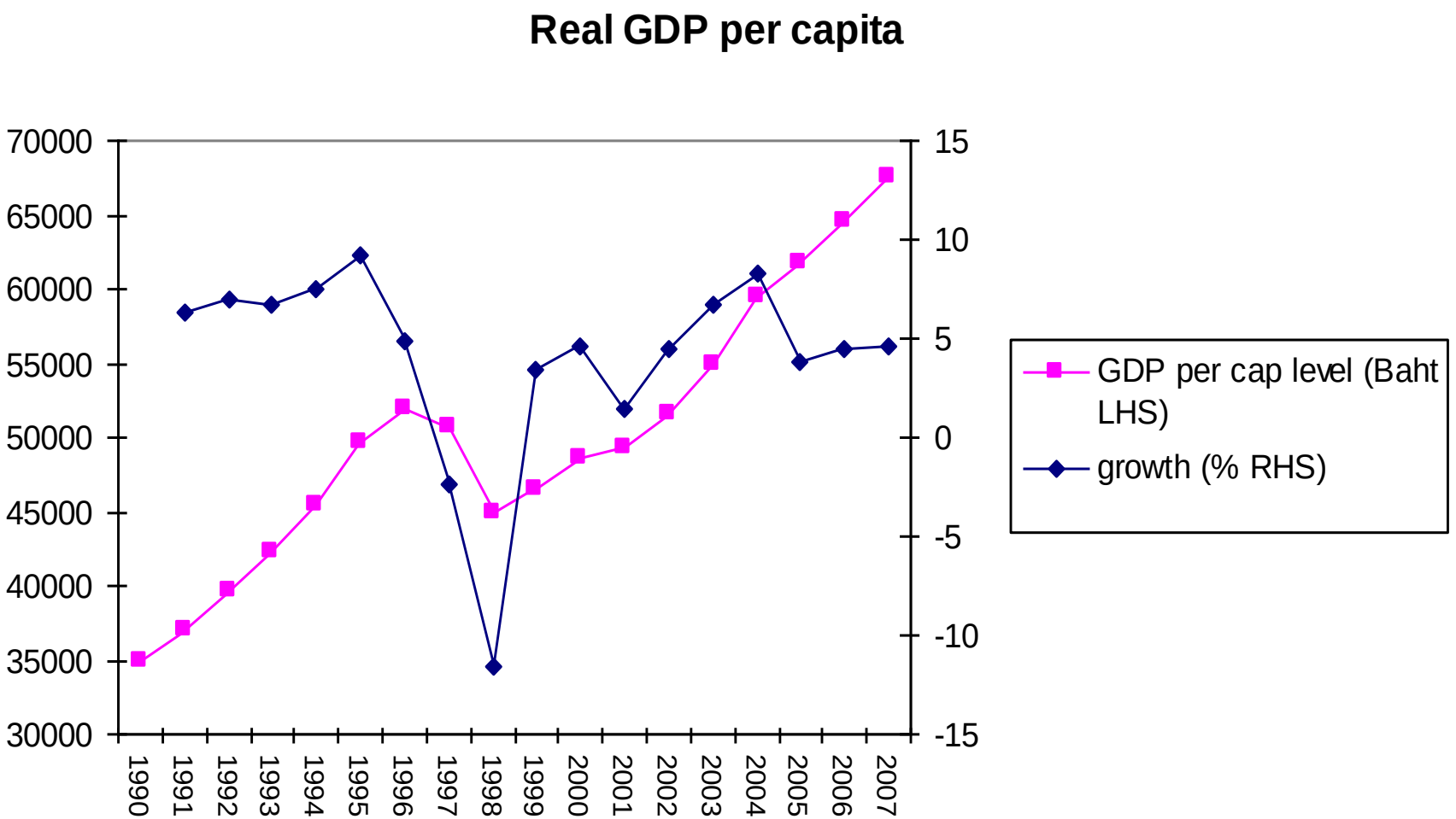
Thailand's experience of currency crisis shows that capital inflows can have both positive and negative impacts. Thailand should have allowed the baht to appreciate during the boom years and should have been satisfied with a lower growth rate. Even if appreciating currency discourages exports, it is 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

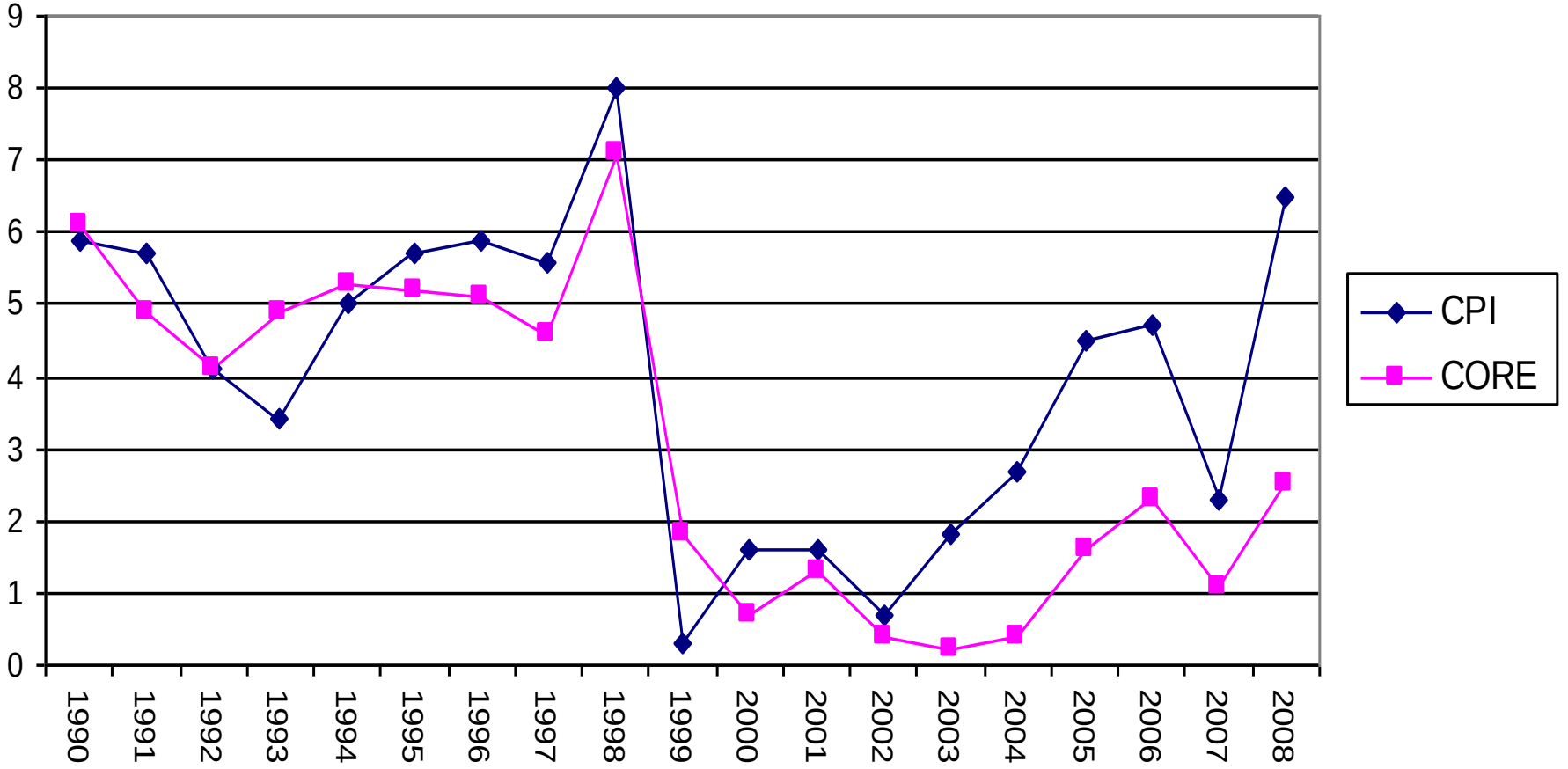
Foreign Ownership in Thai Banks



The V-shaped recovery



Headline and core Inflation



Source: BOT

Shocks and adjustments

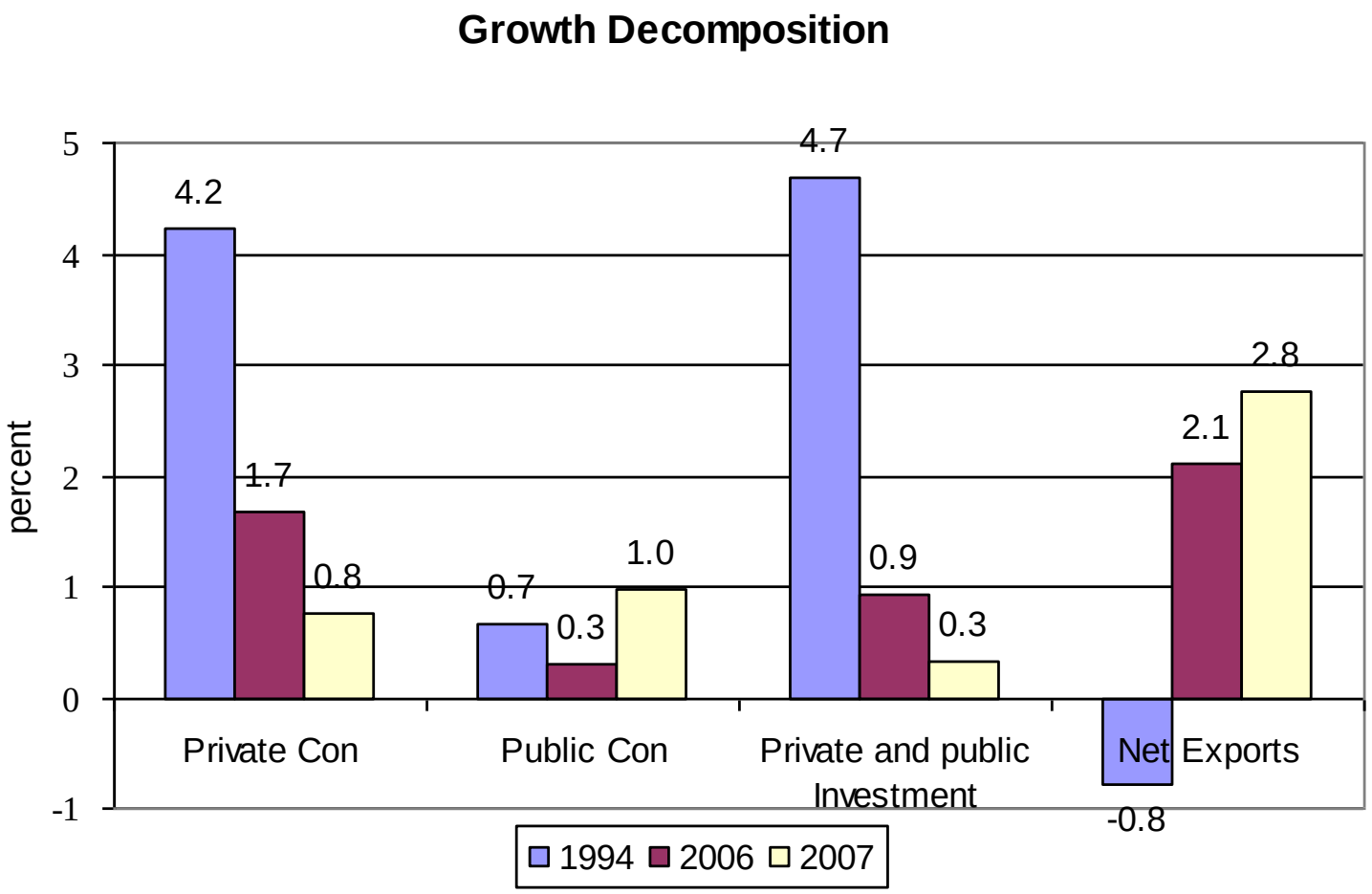
- There exist certain **mechanisms** in the structure of the Thai economy that would lessen the impact of the next economic crisis, whether the shock is internal or external.
- These shocks would not have a long-lasting impact and would simply reduce growth temporarily below a stable growth path.
- The 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?***

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

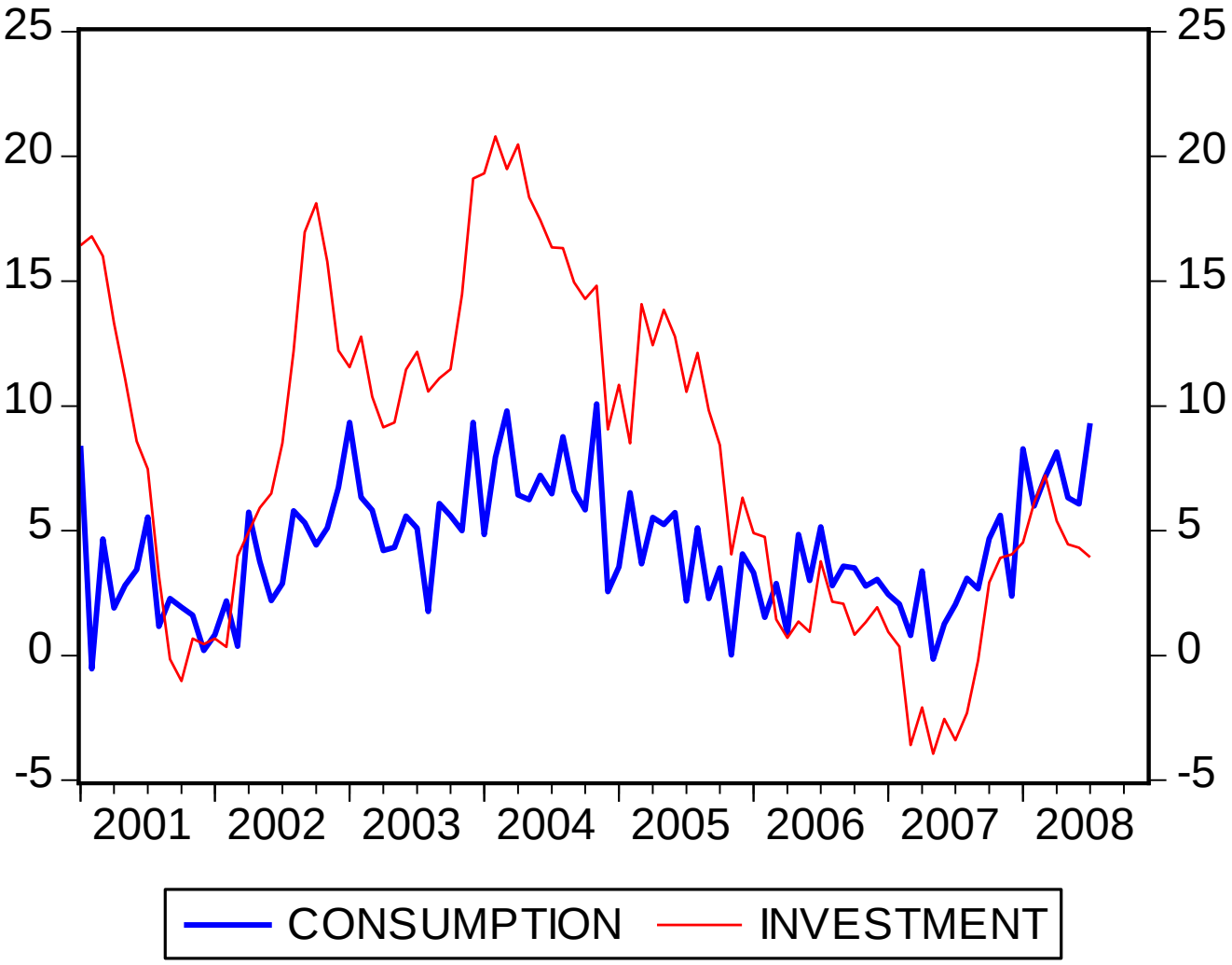
net exports = exports-imports



Source: Calculation based on NESDB data

Long run relationship

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



Determinants of consumption and investment

- Investment expenditures in the past can be used to predict current and future consumption.
- Flexible accelerator model
- Neoclassical theory of investment
- Life cycle hypothesis of savings
- Liquidity constraints

Trend (exponential) growth rate

percentage
January 2000-December 2008

	Consumption	Investment
Mean	4.4	7.9
SD	2.4	6.6
CV	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 a 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
Growth μ	1.8	6.8	4.6
σ σ / μ	5.7 3.2	6.5 0.95	4.9 1.1
Correlation coefficient between the service sector)	-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

$Ln(X) = \alpha - \beta [\ln(P_T/e)/Pw] + \gamma \ln(Yw) + \nu$

γ = income elasticity of demand for Thailand's exports

B = price elasticity of demand

e = baht/usd

P_T = Thailand's export price index

Yw=world income

Pw=world price index

Import Demand Function
Income and substitution effects

$\boldsymbol{\tau}$ = Tariff rate

Pm = import price in USD

$$Ln(M) = \mu - \theta \ln[(1+\boldsymbol{\tau})(ePm/P_T)] + \eta \ln(Y_T) + ..$$

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.

- The loss of consumer and business confidence stemming from the expected recession exacerbated the contraction in consumption and investment.
- Until the exchange rate rebounded to the level determined by economic fundamentals, the economy will continue this debt-deflation episode.

Pigou Effect

- C = f(Net Wealth/P)
- In theory, as pieces 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

- 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.

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.

After a recovery: Structural problems remain

- Although the Thai economy seems to be resilient, riding on the expansion of world trade, there are still some structural problems.
- Public enterprises which enjoy monopoly power and high economic rents must be reformed to make them more efficient and competitive.
- Free trade agreements with other countries can help speed up the structural reform.

Remaining structural problems

- Dependence on imported oil makes Thailand vulnerable to oil price shocks.
- Adverse impact of the oil shocks had been postponed through public subsidy, but the surge in inflation and the loss of competitiveness became apparent as wage and price adjustments began to take place.

Remaining structural problems

- The exchange rate must be made more realistic with little intervention so as the cushion the economy from external disturbances.
- Resilience requires sensible policies such as realistic exchange rates and macro prudential policy.
- **A Big Mac Index** may provide a clue to exchanger rate undervaluation or over valuation.

Underground economy

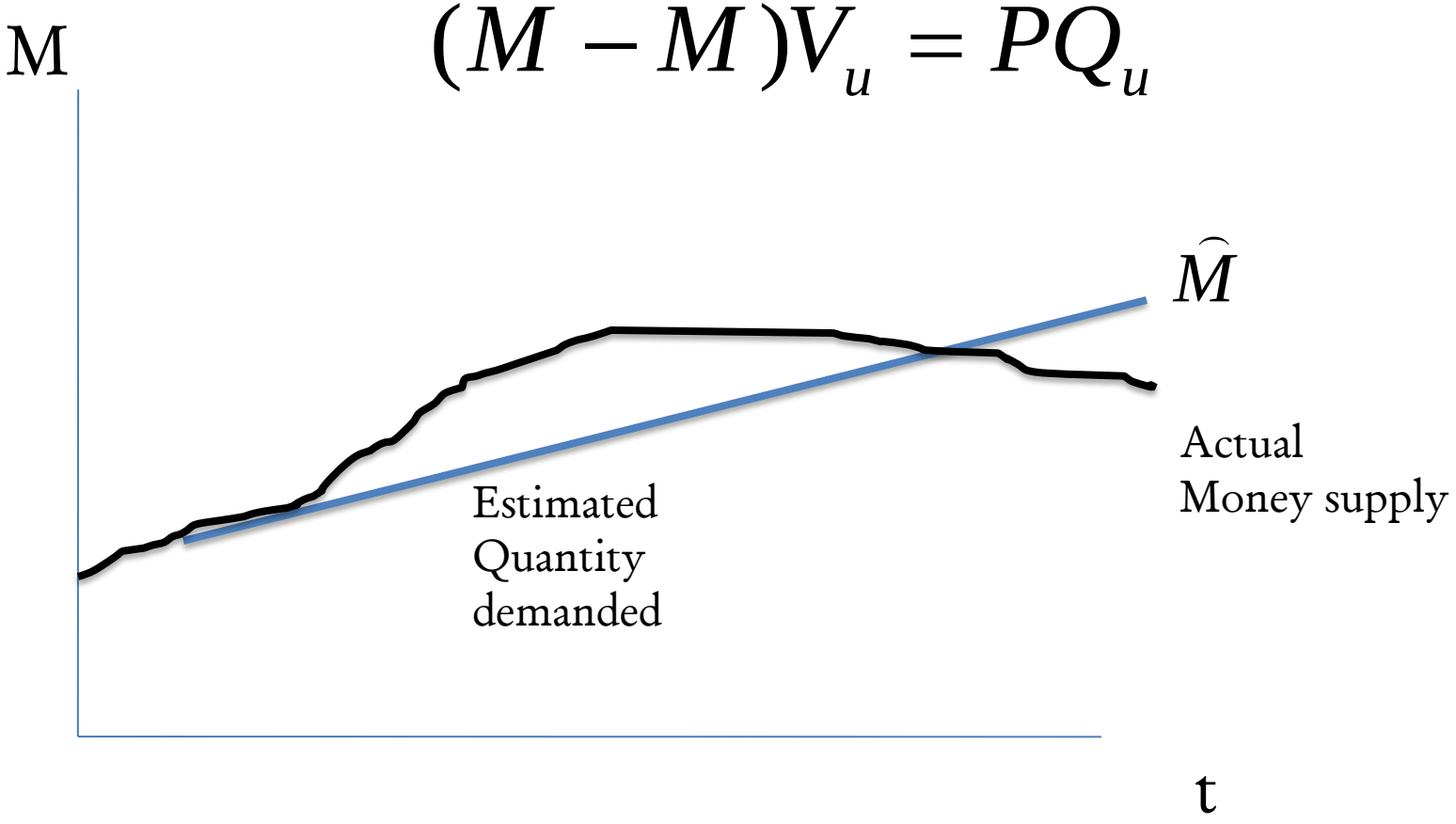
- In the shadow economy (informal sector, or underground), business goes off the books.
- The shadow economy is spreading, including both legally earned income and illicit activities, such as drug dealing, prostitution, and gambling.
- The government knows less about what is really going on in the economy
- The underground economy overstates the actual level of unemployment
- The government has difficulty taxing those earned income.

Missing quantity of money

- Friedrich Schneider, a professor at Austria's Linz university, estimated unreported activities in **17** rich countries by examining the amount of **unexplained** cash sloshing around the economy.
- The basic assumption is that the shadow economy works on cash, so more unreported transactions mean greater demand for cash.
- Schneider estimated that the shadow economy account for more than one-fifth of GDP in Belgium, Italy and Spain.

MV=PQ

$$(M - \hat{M})V_u = PQ_u$$

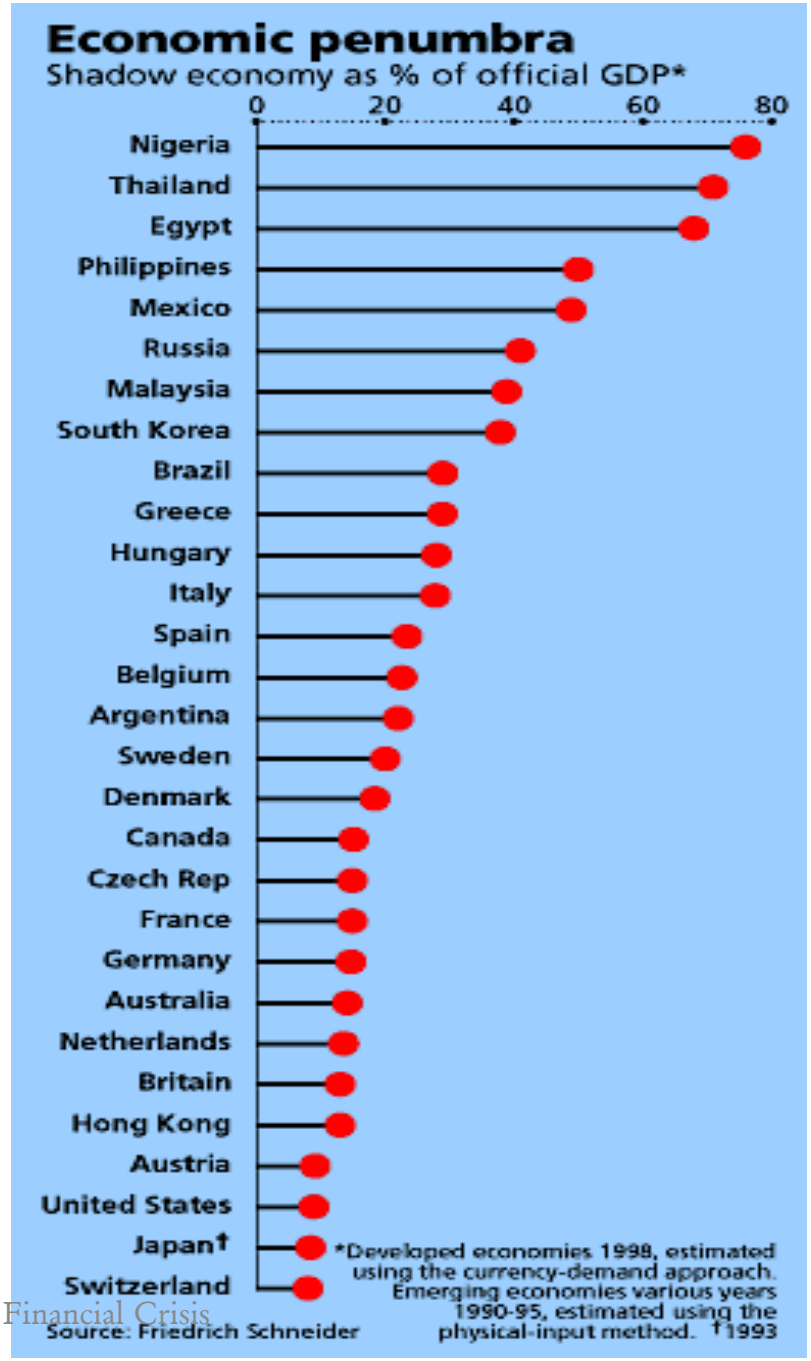


The size of the underground economy

(% official GDP)

Emerging economies: 1990-95

Developed economies: 1998



Tax burden and tax evasion

- Nigeria and Thailand had the world's largest black economies, accounting for more than 70% of official GDP.
- Note that China was excluded from the study.
- The shadow economy is not so much driven by the incentive to evade taxes as by a desire to evade the law. True, false, or uncertain?
- How many Thais pay income tax? How many people pay at the 37% tax bracket and how many percent of total income tax revenue?

Cash approach

- Thailand's thriving shadow economy largely consists of crime: gambling, narcotics and the sex industry (according to Prof. Schneider).
- Thailand was ranked ahead of Egypt, Philippines, Mexico, Russia, Malaysia, South Korea, Brazil and Greece.
- Shadow economy in the OECD countries is usually attributed to high taxation and onerous labor regulation.
- In transition economies and LDCs, the driving forces of shadow activities are usually tax and regulation avoidances, corruption, and general distrust by citizens of the political system.

Substitution or complement to above ground activities ?

- According to Schneider, the underground economy would mark a turnaround in its fortunes after nearly a decade of decline.
- He estimated the value-added of the shadow economy in 21 of the 30 OECD countries.
- On average, it was equivalent to 16.8% of GDP in 1999.
- By 2008 that figure had fallen to 13.3%.
- In 2009 he forecast it would ***rise*** to 14%.
- Is there any relationship between GDP growth and the size of the underground economy? Will the underground economy in Thailand expand or contract in 2014?

Discussion questions

- In his recent study, Mr. Schneider's calculations exclude illegal activities.
- The size of the underground economy is equivalent to less than 8% of GDP in the United States, whereas in Greece it reaches 25% and in Italy 22%.

Source: The Economist, April 2, 2009

Thailand's underground economy expands during recession and contracts during recovery (True, false, or Uncertain?)

Review questions

- How well 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?

Review questions

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