EE 460: External Influences and Disequilibrium Adjustment

"The global financial crisis and macroeconomic policy in Southeast Asia" In ***Hand Book of Southeast Asian Economies,*** edited by Ian Coxhead, Routledge, 2015.

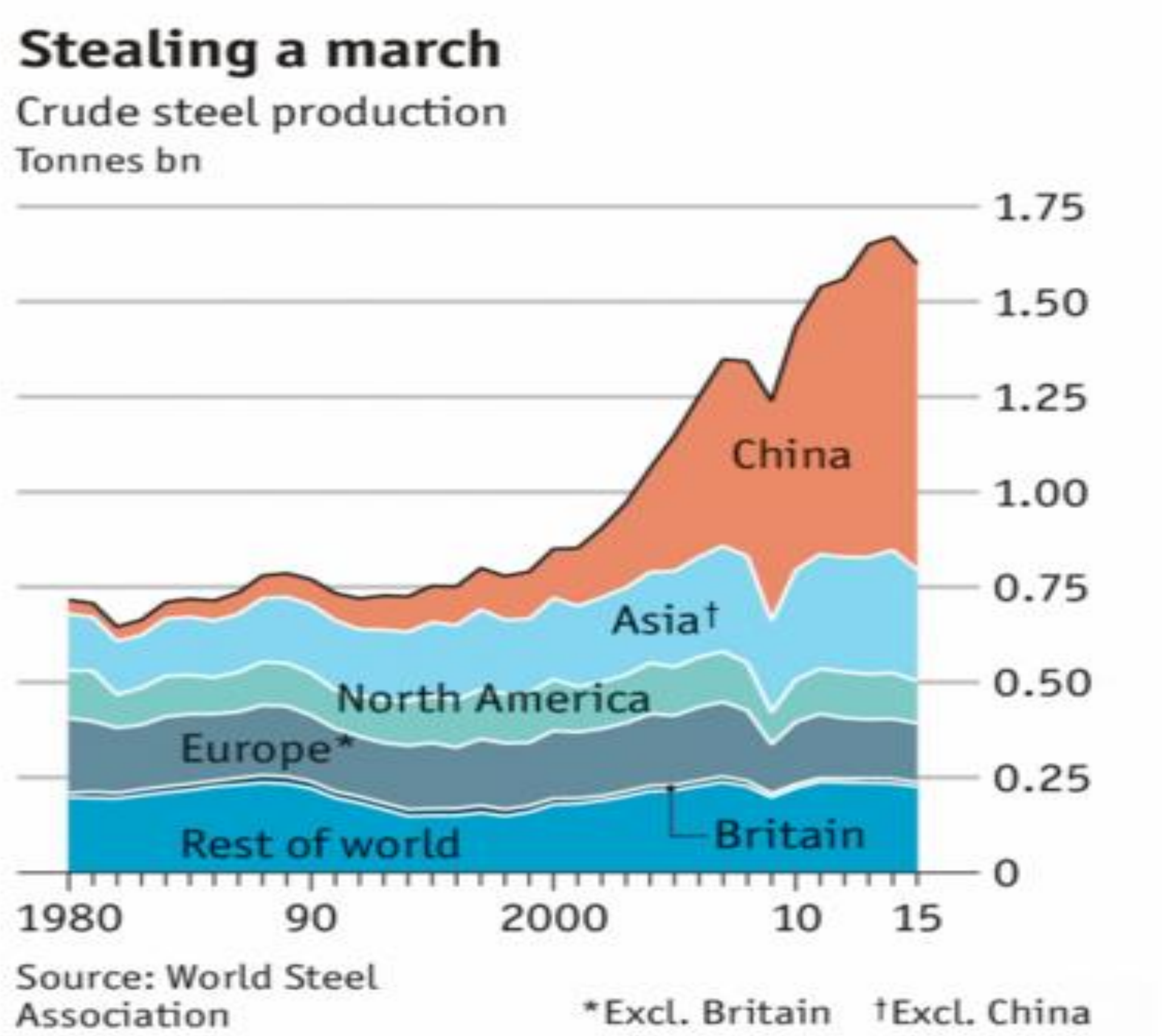
"The ASEAN business cycle and China's slowdown" *The Philippine Review of Economics*, Vol. LII no.2 December 2015, 203-221.

Lecture 21

Mr. Bhanupong

Lifeline of steel: rescue at Port Talbot?

- Sanjeev Gupta, boss of the commodities firm Liberty House, will surely demand generous government support before buying Tata Steel's loss-making plant in South Wales, the center of a huge political row in Britain (meaning: beware big promises).
- Ambitiously, Mr. Gupta pledges to save all 4,000 jobs by converting the plant to use domestic scrap, rather than imported raw material.


Stealing a march
Crude steel production
Tonnes bn
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0
China
Asia†
North America
Europe*
Rest of world
Britain
1980
90
2000
10
15
Source: World Steel Association
*Excl. Britain
†Excl. China

Small is beautiful

- In America, such “***mini mills***” indeed do better than the traditional kind: electricity costs are lower and labor less encumbered by pension and health-care costs.
- Crucially, they are easier to switch off during a glut—like the current one, in which profits of marginal steelmakers around the world are being ***smelted*** by surplus Chinese production.
- But America has swinging ***anti-dumping tariffs*** against Chinese steel; Britain doesn’t.
- Electricity costs are higher, the steel market smaller, and Tata is encumbered by its former workers’ huge pension bill. Expect steely-eyed bargaining.

The ASEAN business cycle and China's slowdown

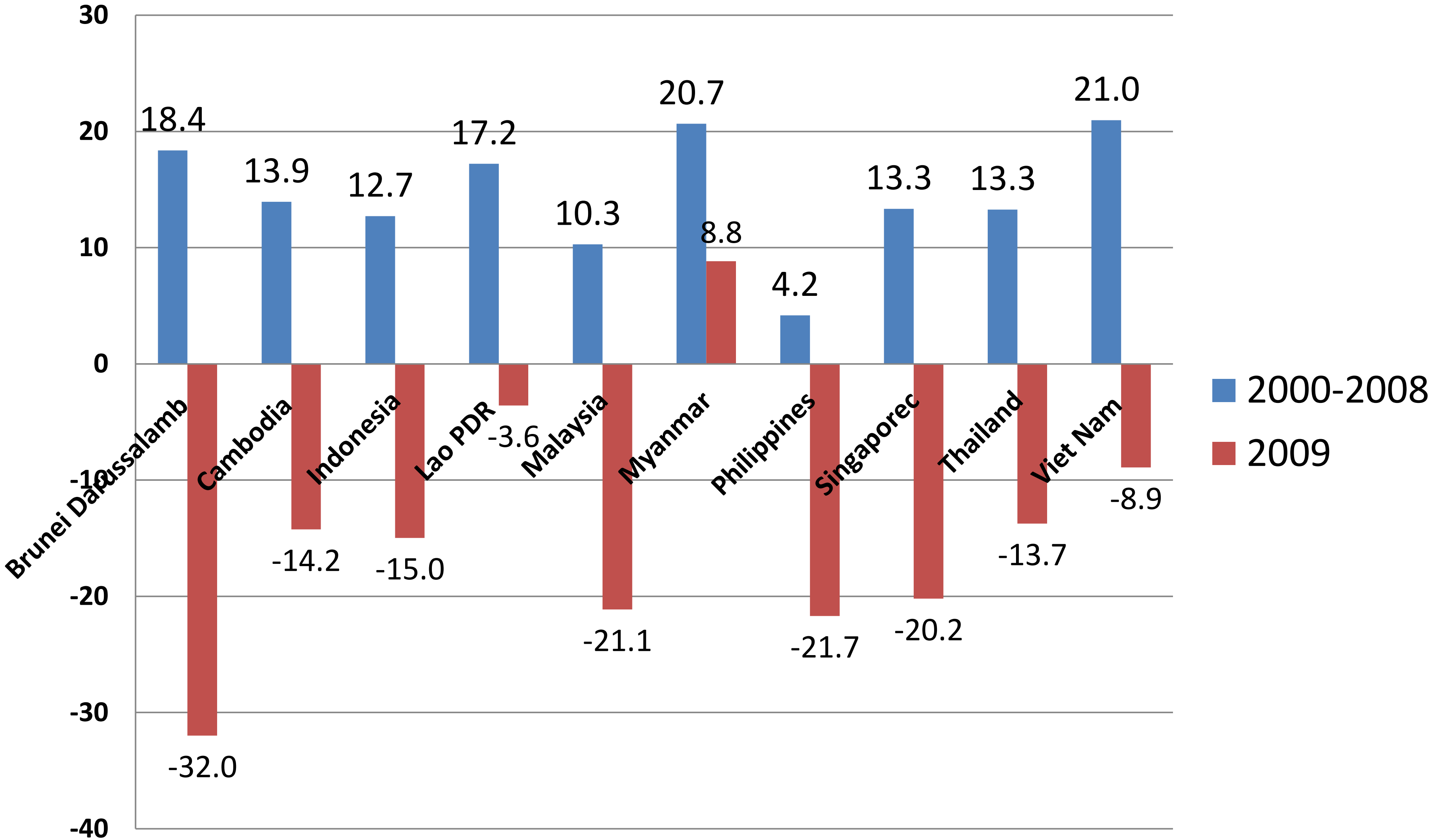
Bhanupong Nidhiprabha

The economies in the Association of Southeast Asian Nations (ASEAN) have been integrated through increasing trade relations intensified by tariff reductions and increasing openness to foreign direct investment. Rising volume of networks trade has deepened interconnectedness between ASEAN and China, a recent growth locomotive in the world. ASEAN business cycle is shaped by volatile China's trade volume. As China's expansion slows down, adverse consequences on ASEAN economies have become more pronounced. The extent of the damage depends on each member of ASEAN's trade exposure and China dependency. This paper identifies the most vulnerable ASEAN economies to China's business cycle. The slowing down of the Chinese economy would undoubtedly result in a decline in long-term growth of some ASEAN economies, unless appropriate policy responses can be implemented.

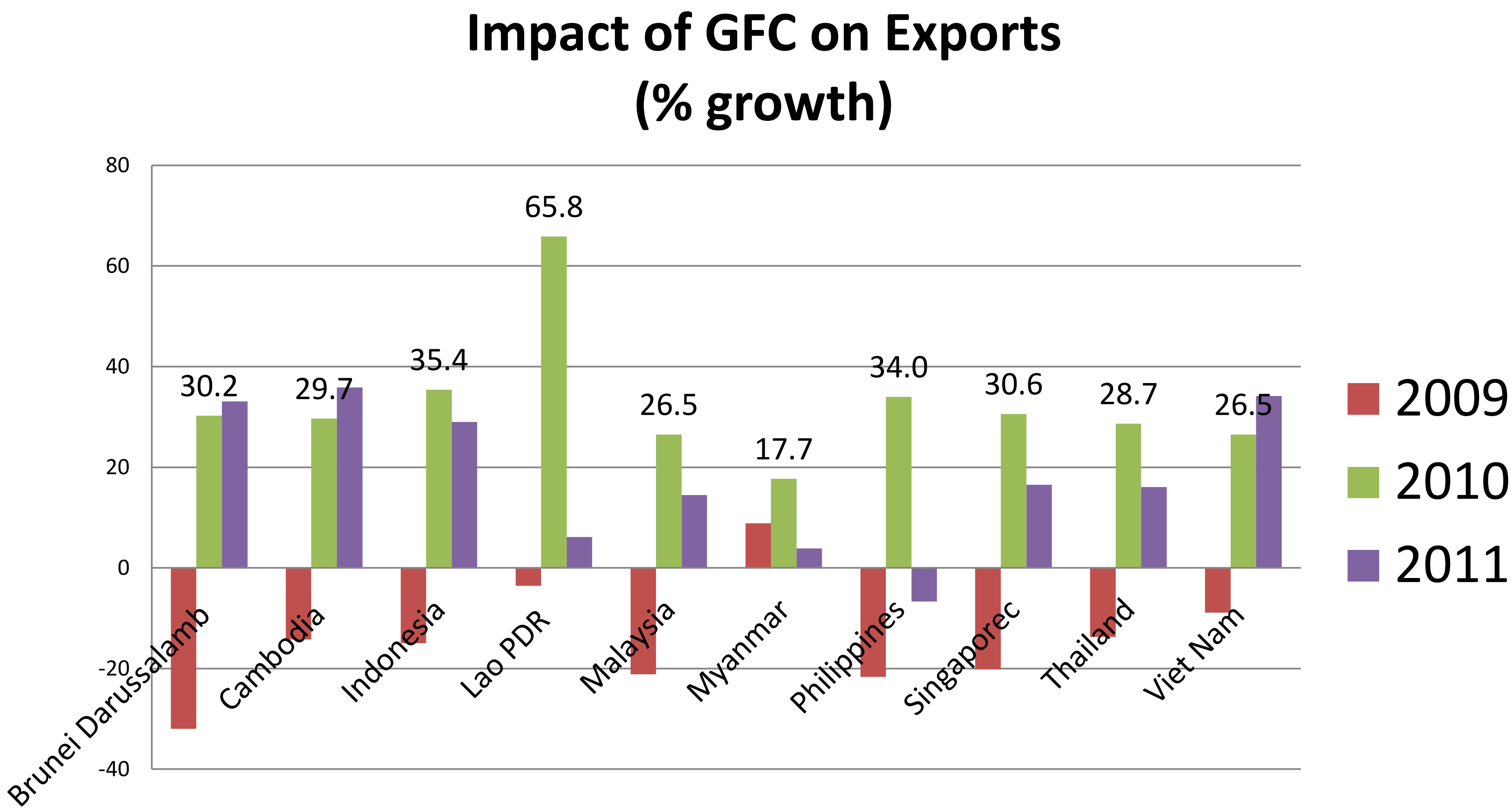
Main themes

- ASEAN Business Cycle Synchronization
- China’s slowdown and China Dependency
- Saving, investment, and growth nexus
- Role of exchange rate adjustments
- Policy responses to current account disequilibrium

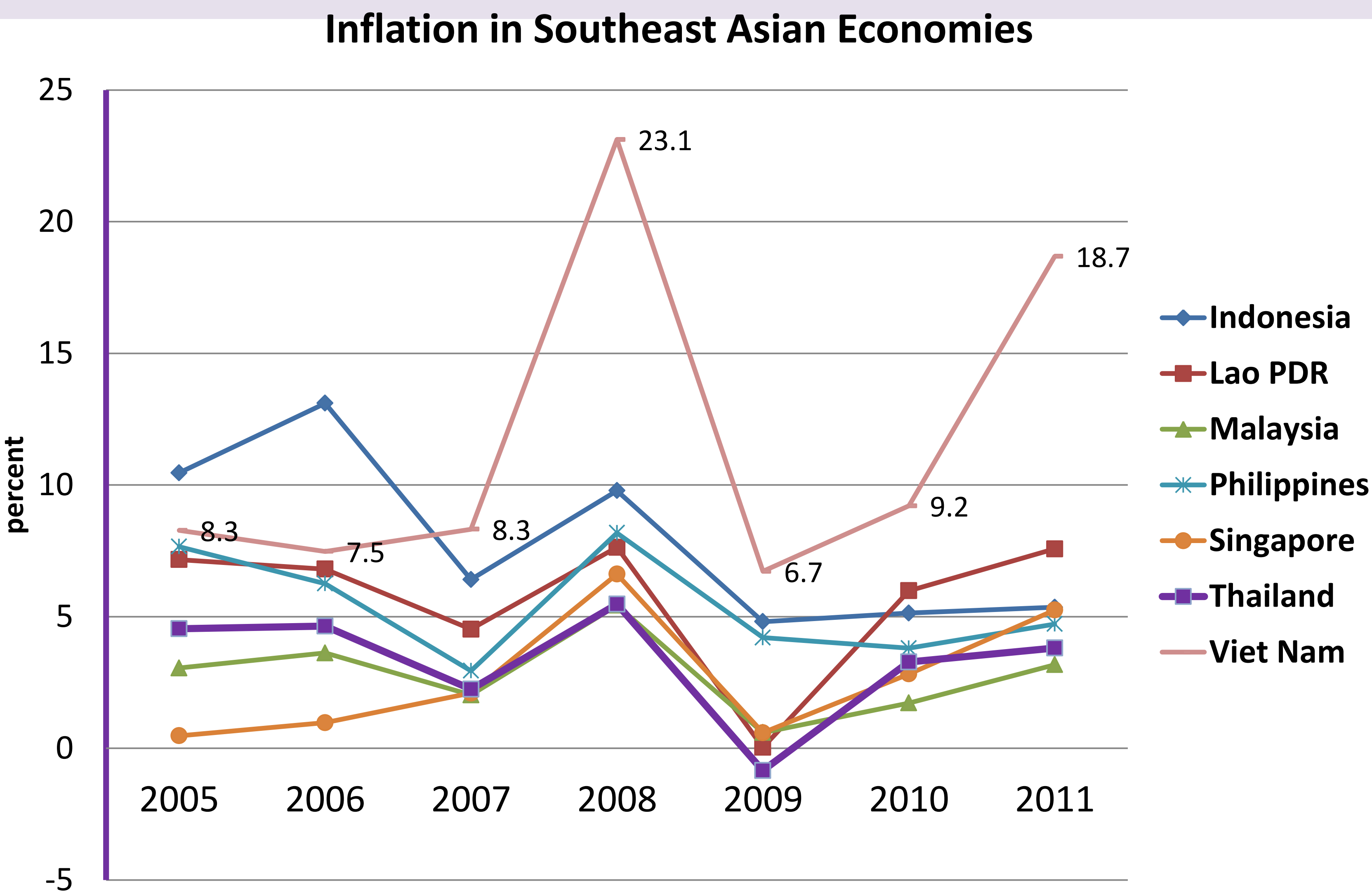
Impact of GFC on Exports (% change)



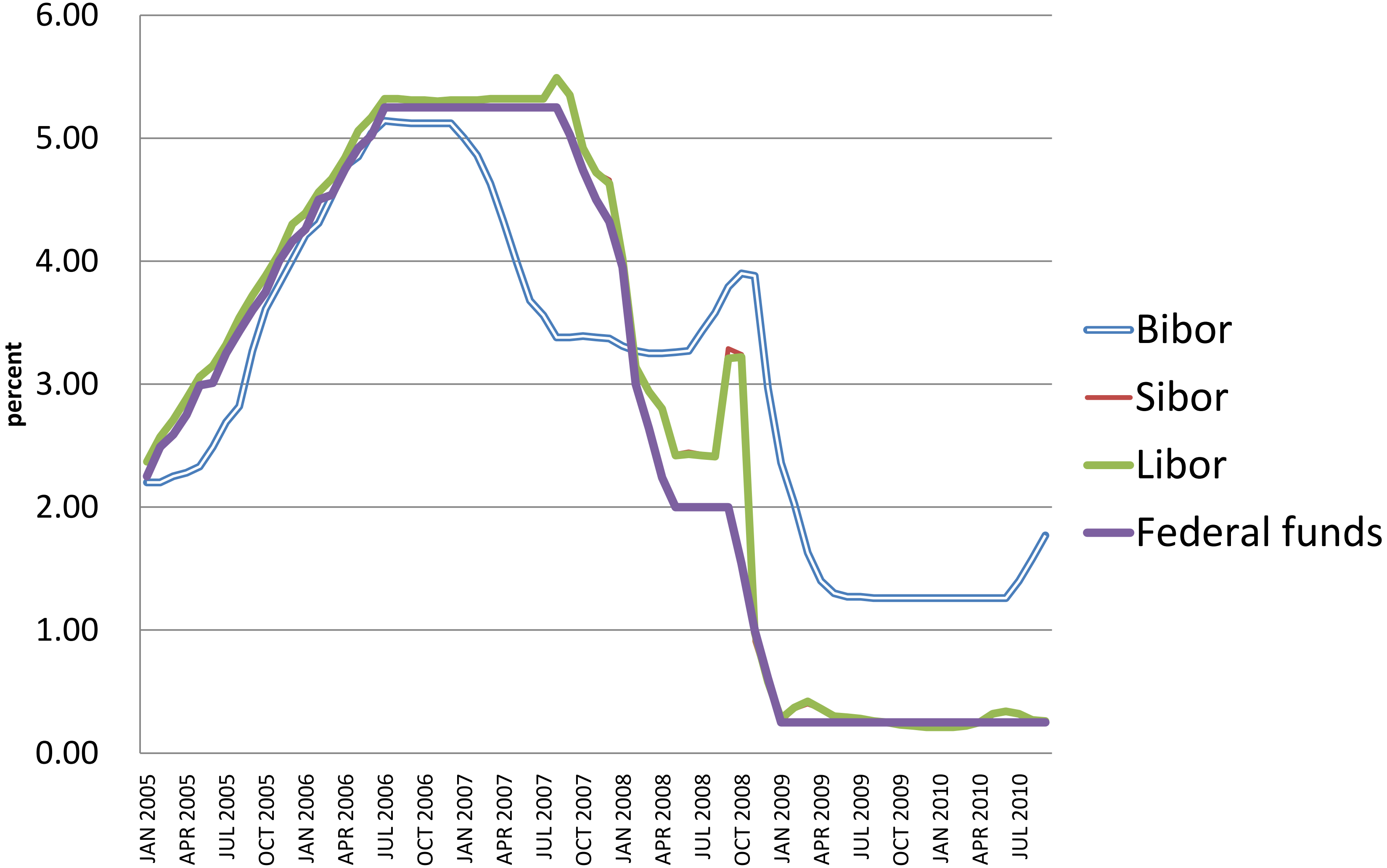
What do ASEAN have in common?



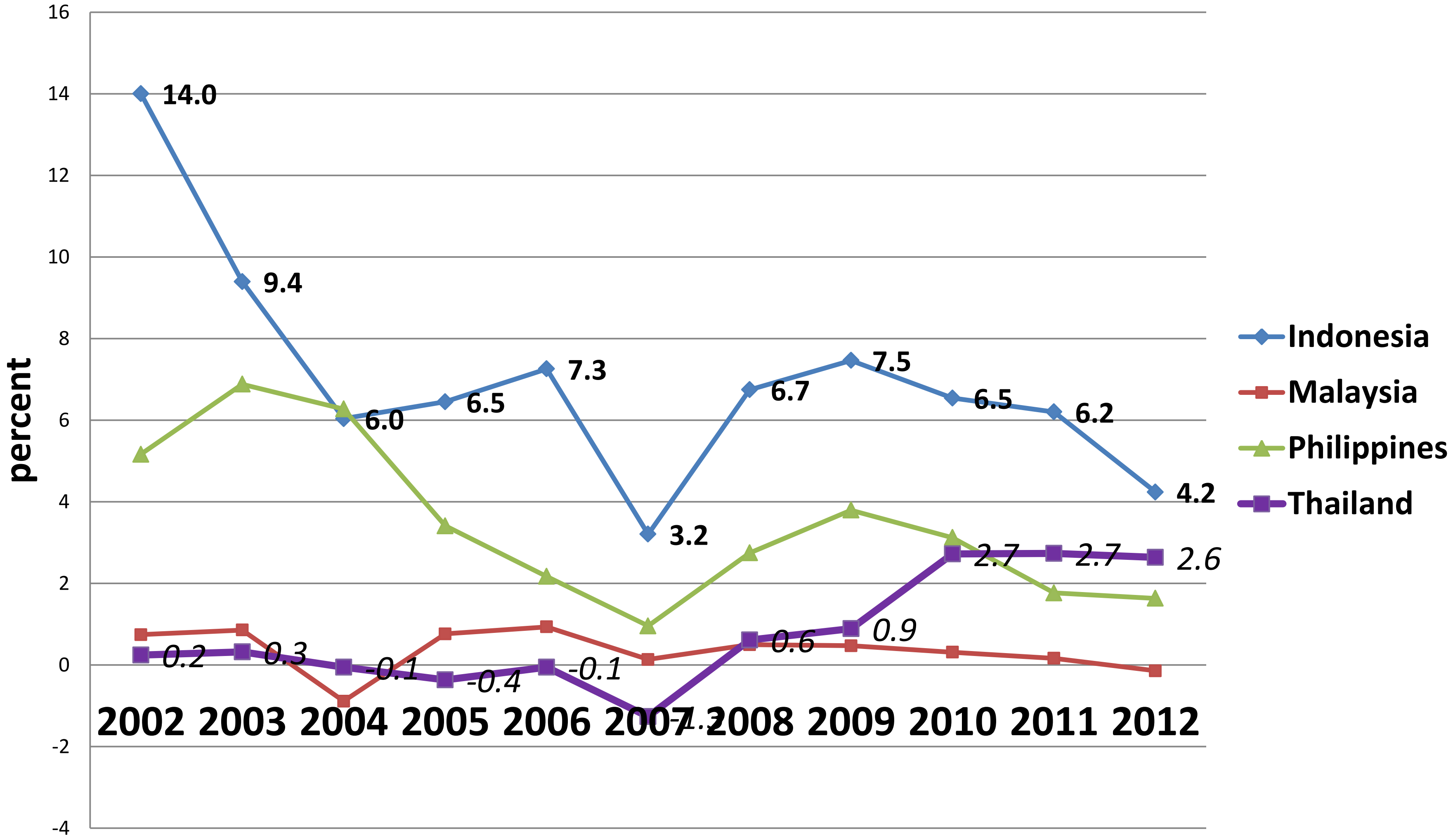
Inflation synchronization



Interbank offered rates: Jan 2005-Sep 2010
(Maturity: one week)



Money market rate differentials vis-à-vis Singapore



Financial globalization

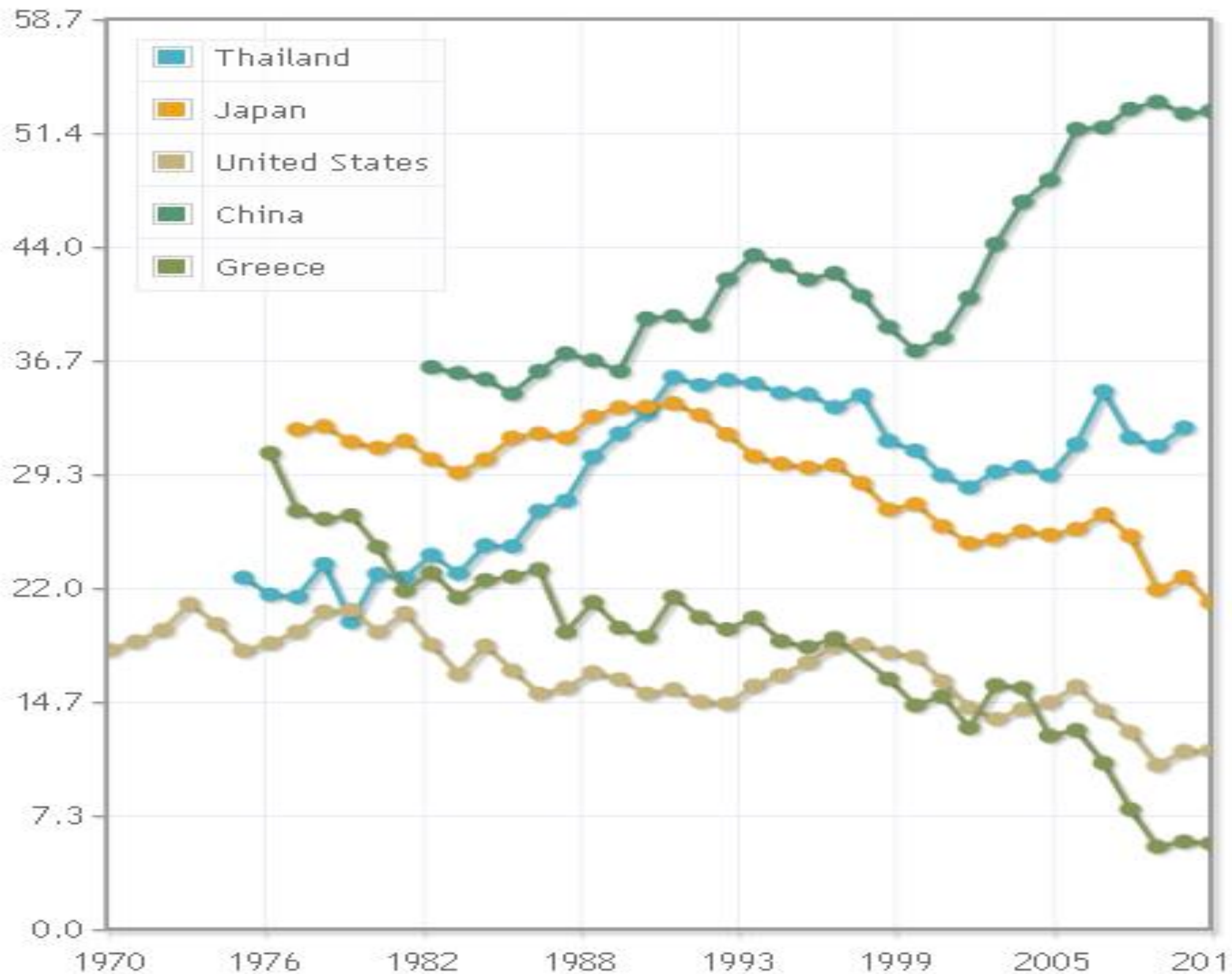
- Short term interest rates are closely related, reflecting free capital movements.
- Singapore’s money market is more closely related to London, when compared to Bangkok’s.
- Short-term money markets are less volatile in Bangkok, indicating higher degree of intervention by the BOT through adjusting the key policy rate.

Saving and Output growth

- $S_t = \alpha + \beta\, Y_t$
  (implied by absolute income theory of consumption)
- $(S/Y)_t = \alpha/Y_t + \beta$
- $s \quad = \alpha/[(1+g)Y_{t-1}] + \beta$
- s =saving rate, g = growth rate
- Since $\alpha < 0$, $\partial s/\partial g > 0$
- There is a positive impact of output growth on the saving rate.

Gross savings rate (% of Gross National Income)

Gross savings are calculated as gross national income less total consumption, plus net transfers.



$I/Y = \alpha + \beta(S/Y) + \varepsilon$

- Martin Feldstein and Charles Horioka (EJ 1980)

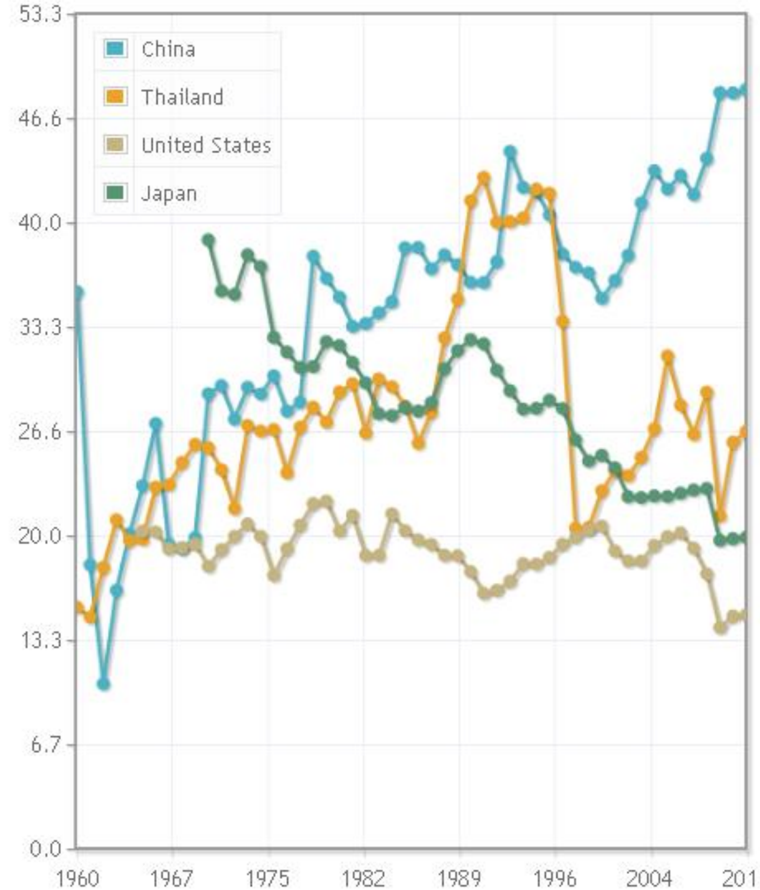
"with perfect world capital mobility, there should be ***no relation between domestic saving and domestic investment***: saving in each country responds to the worldwide opportunities for investment while investment in that country is financed by the worldwide pool of capital."

- In a cross-section study:

if capital mobility is perfect, The estimated coefficient $\beta=0$

Gross capital formation (% of GDP)

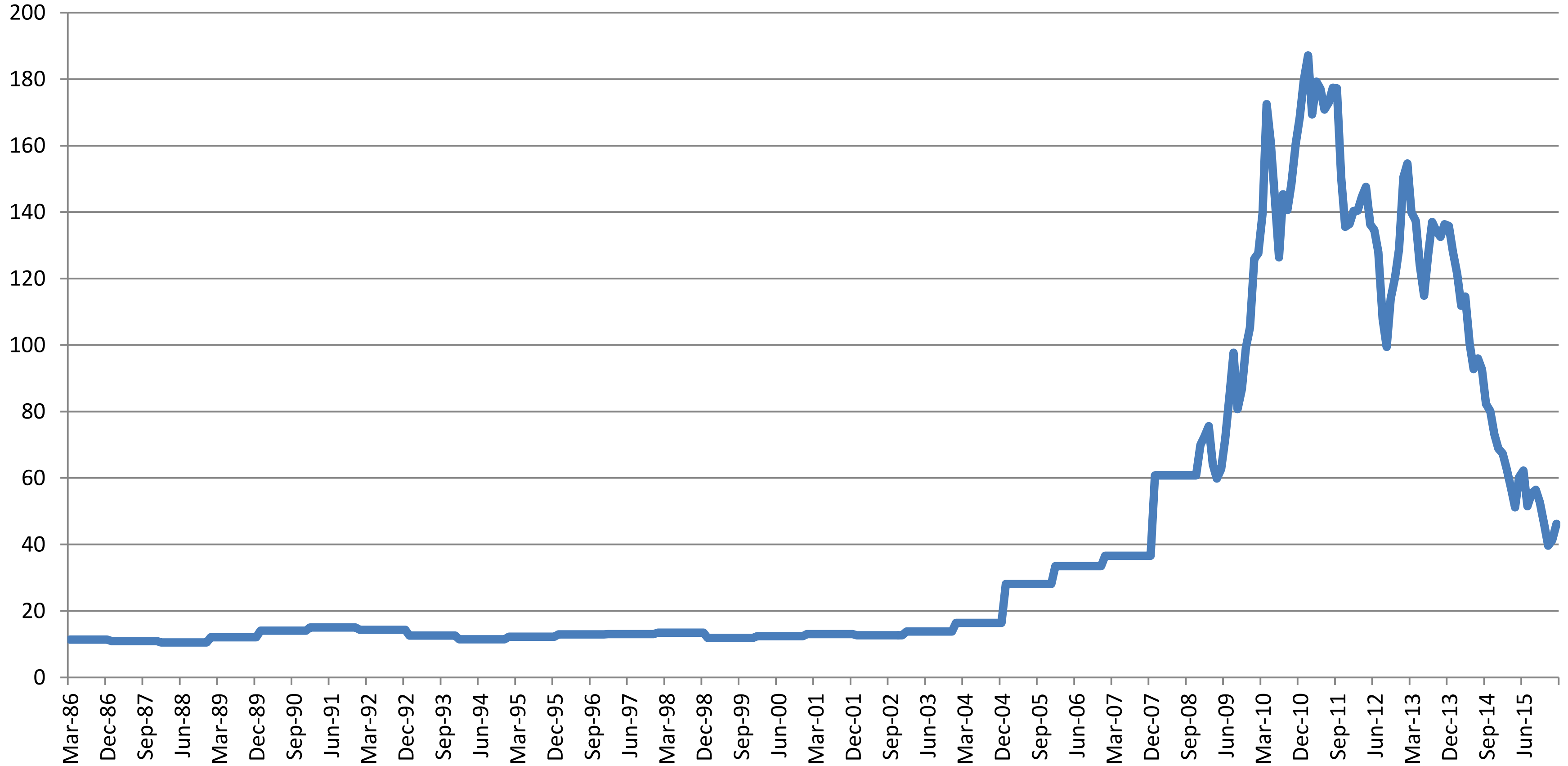
Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories



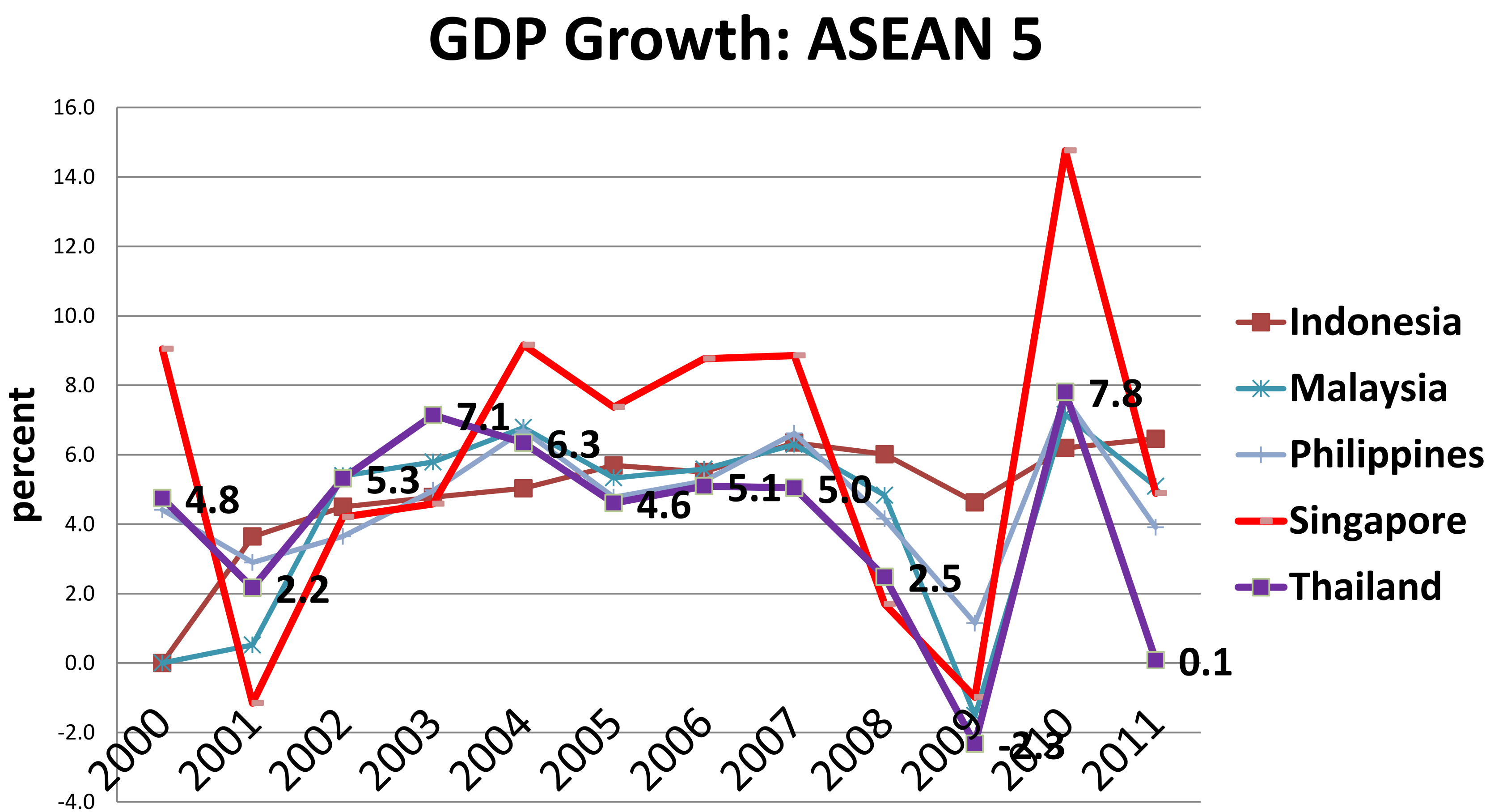
Iron Ore (USD per MT)

March 1986: $11.4

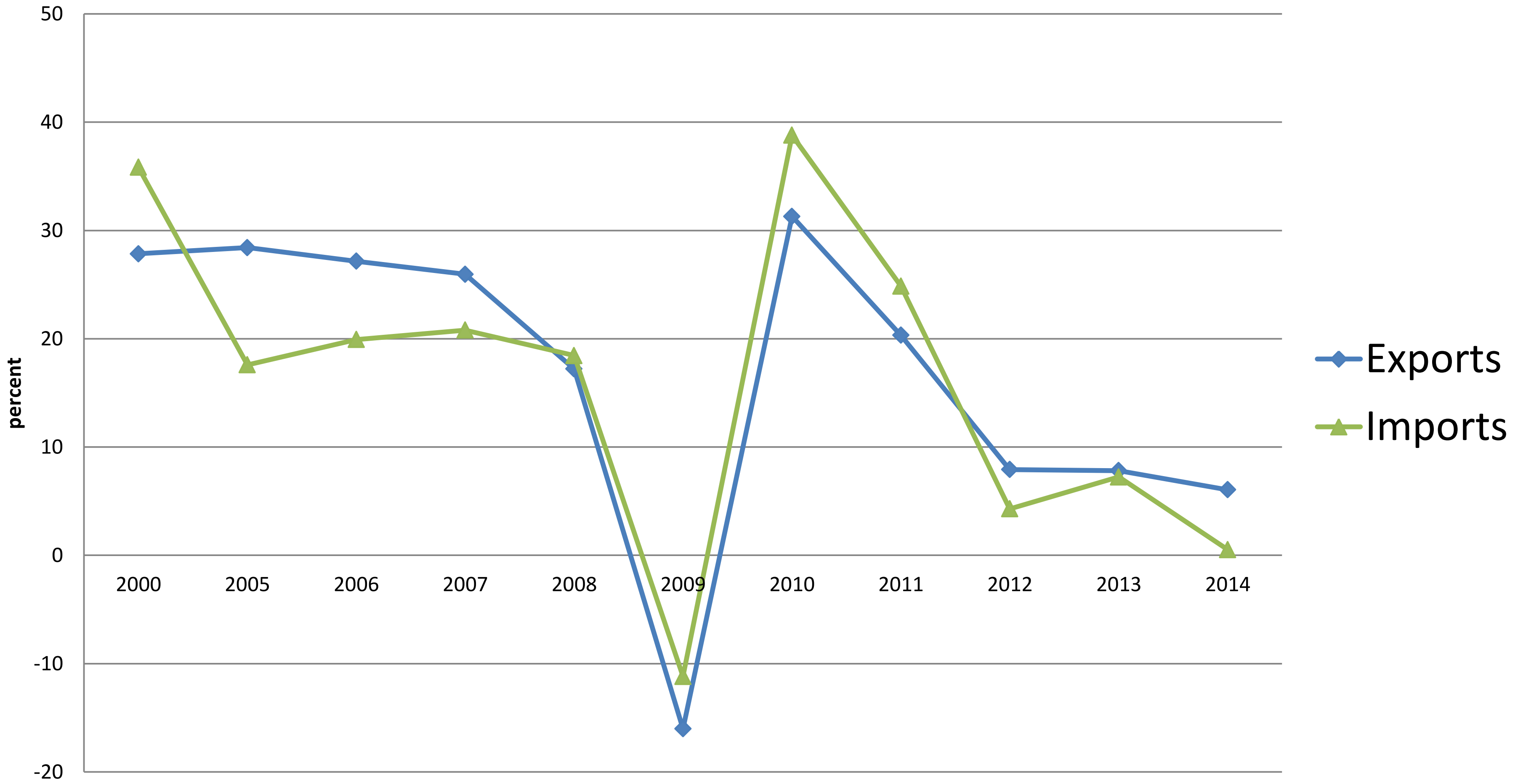
Feb 16: $46.2



Growth Synchronization



Fgure 1: Growth Rate of China's MerchandiseTrade



Transmission of external shocks

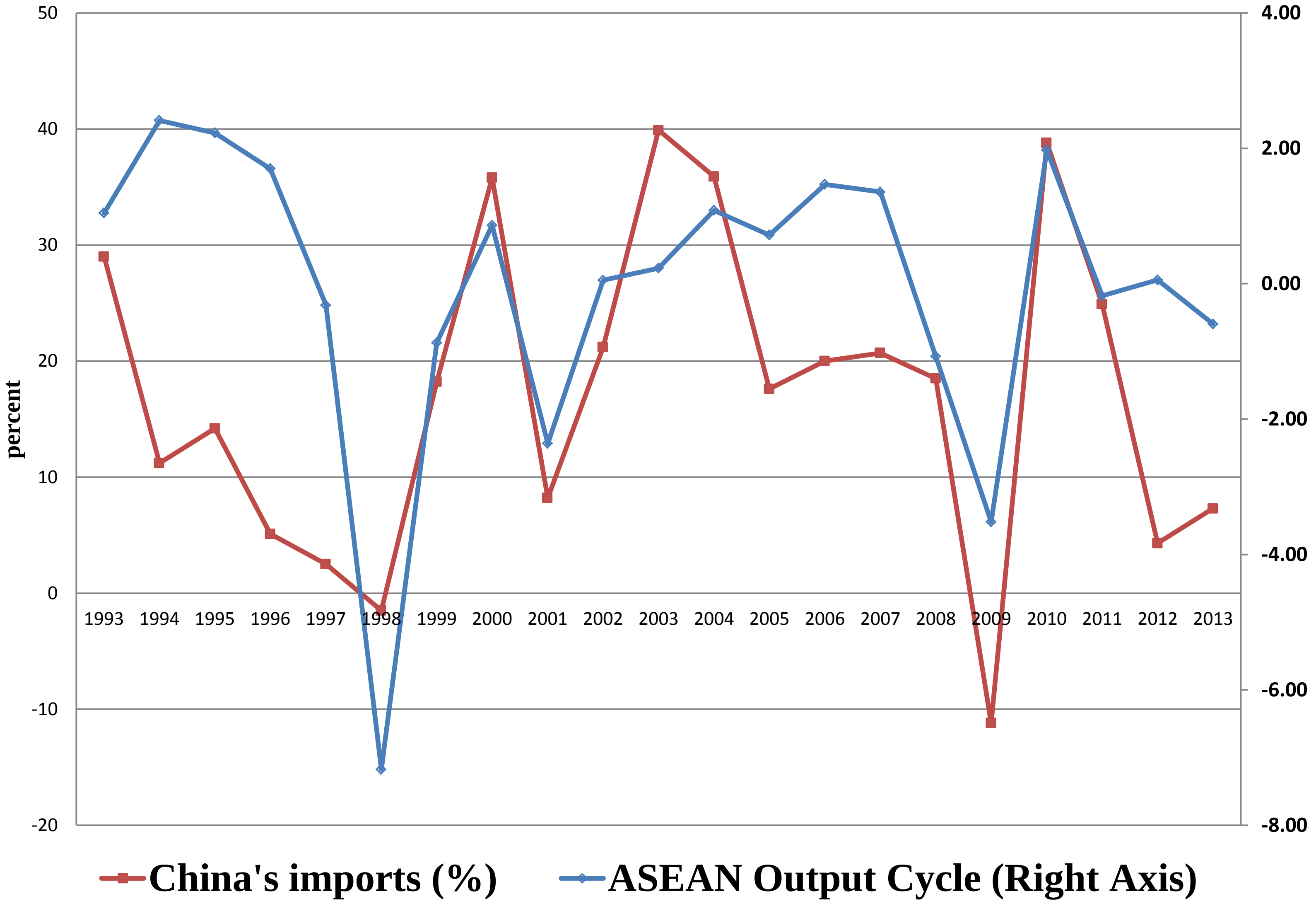
$$NX = X(Y_f, \frac{eP_f}{P}) - IM(\frac{eP_f}{P}, Y)$$

$$\text{Real exchange rate} = \frac{eP_f}{P}$$

$$e = Baht / \$$$

Commodity Metals Price Index, 2005 = 100,
Copper, Aluminum, Iron Ore, Tin, Nickel, Zinc, Lead, and
Uranium Price Indices
Unit: Index Number

Figure 2: ASEAN Business Cycle and China's Imports



Investment and growth

- $\Phi = K/Y =$ capital-output ratio
- $\Delta K = \Phi \, \Delta Y$
- $I/Y = \Phi \, \Delta Y/Y$
- $I/Y = f(g)$; $f' > 0$
- Accelerator effect of growth on investment
- There are other factors determining investment rate: credit availability and the interest rate.

ASEAN Investment synchronization

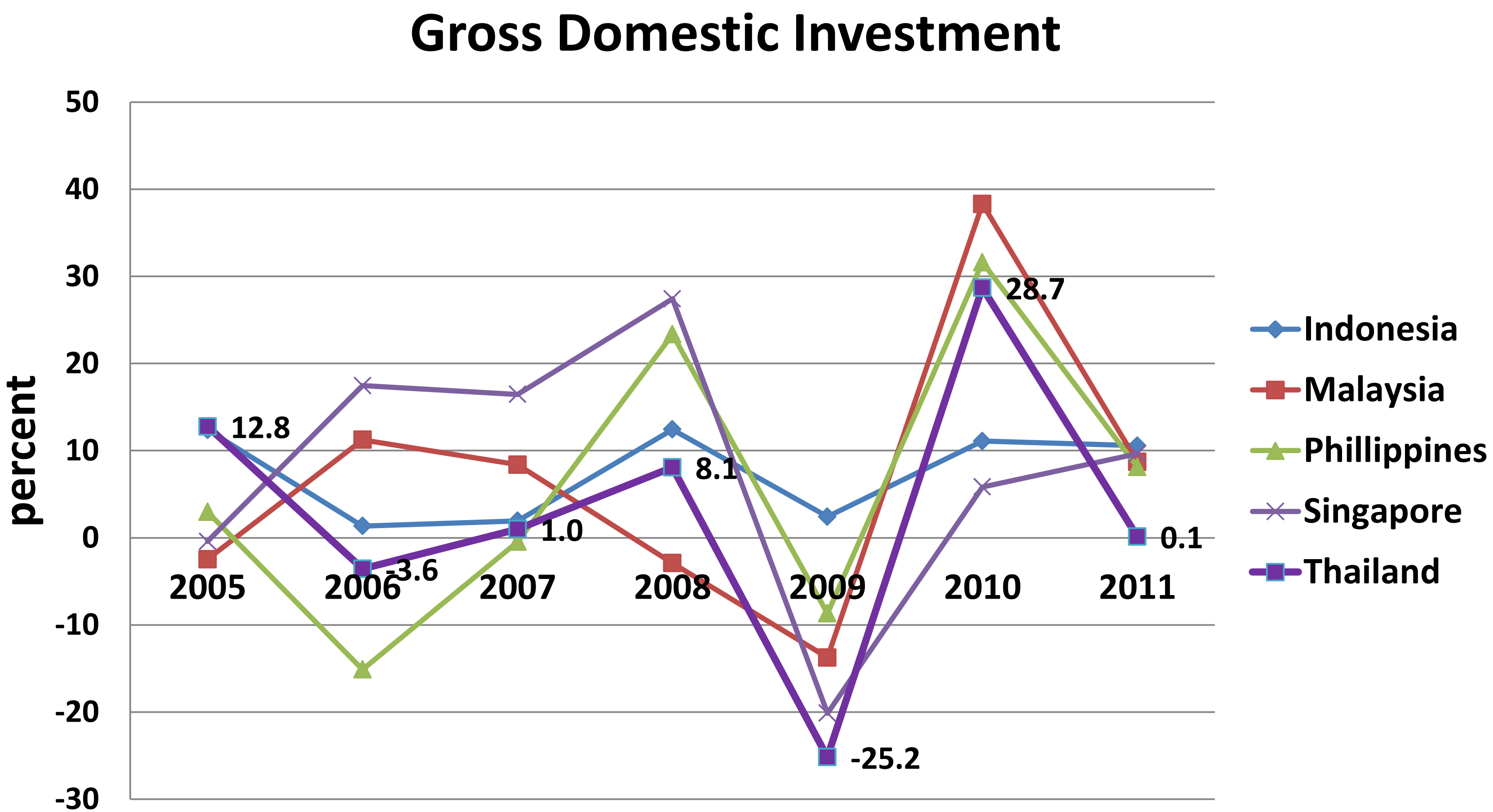
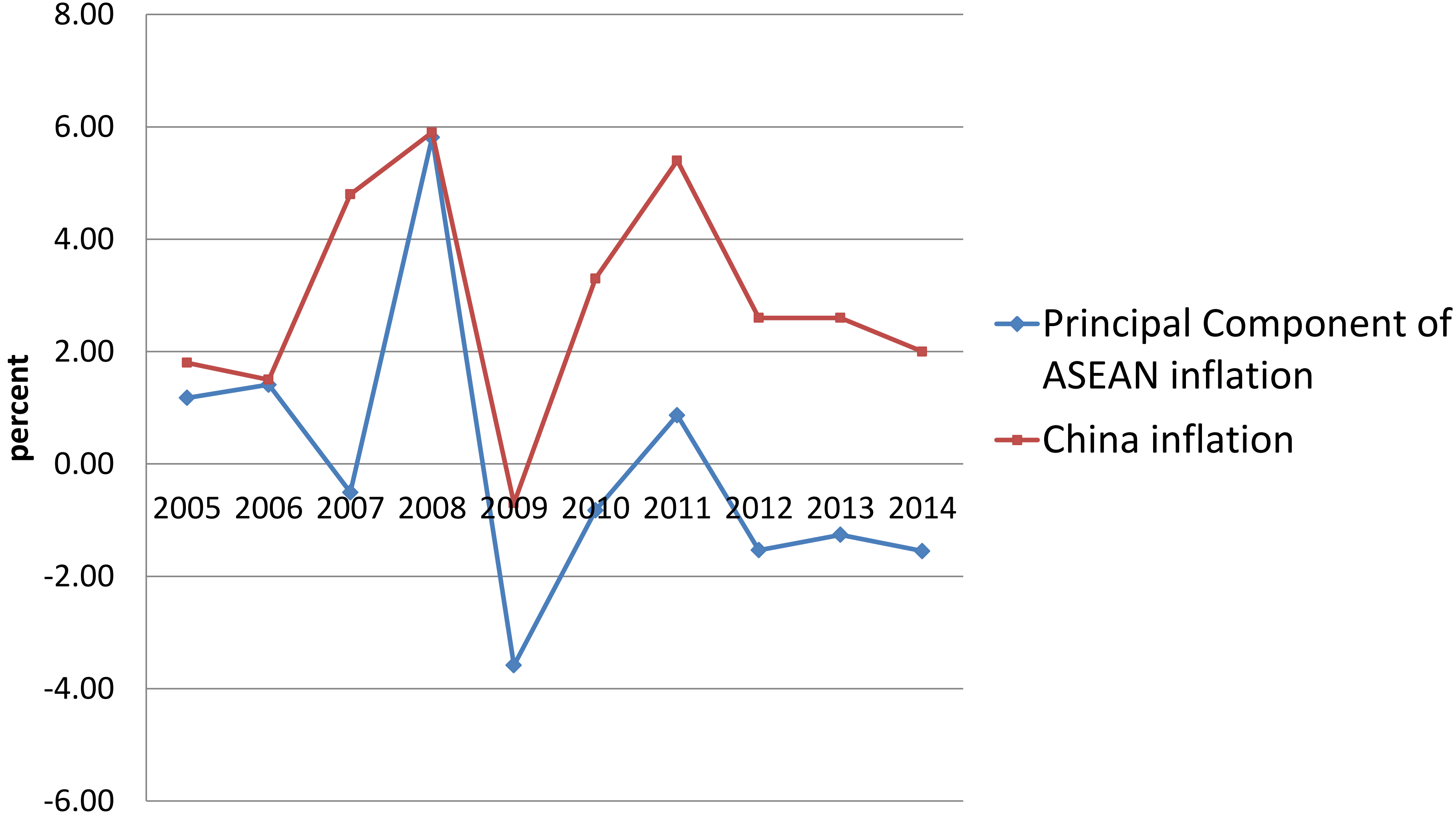
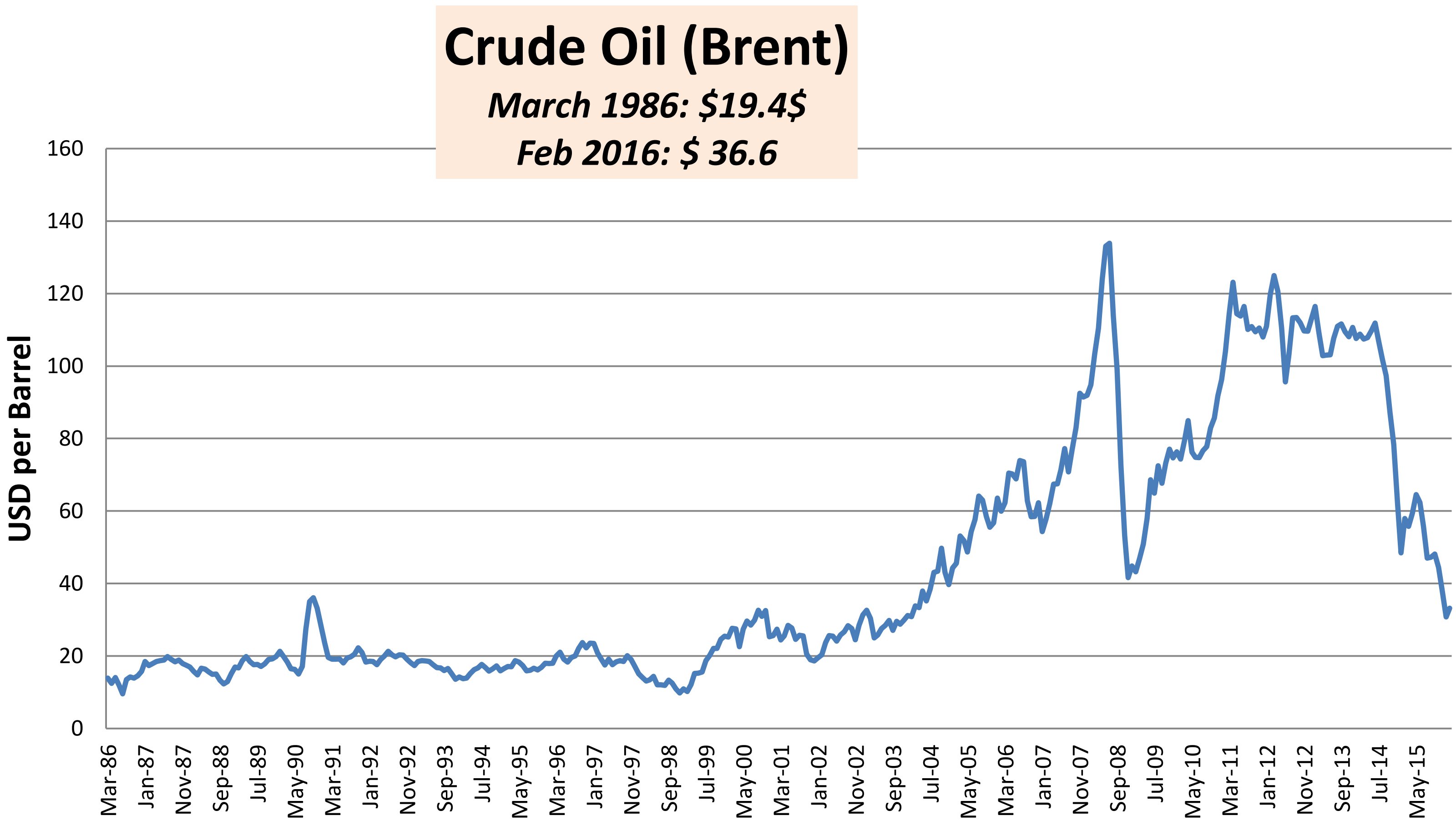


Figure 3: Inflation Syncronization: China and ASEAN




Crude Oil (Brent)
March 1986: 19.4
Feb 2016: $ 36.6
USD per Barrel
160
140
120
100
80
60
40
20
0
Mar-86
Jan-87
Nov-87
Sep-88
Jul-89
May-90
Mar-91
Jan-92
Nov-92
Sep-93
Jul-94
May-95
Mar-96
Jan-97
Nov-97
Sep-98
Jul-99
May-00
Mar-01
Jan-02
Nov-02
Sep-03
Jul-04
May-05
Mar-06
Jan-07
Nov-07
Sep-08
Jul-09
May-10
Mar-11
Jan-12
Nov-12
Sep-13
Jul-14
May-15

Transmission of external influences

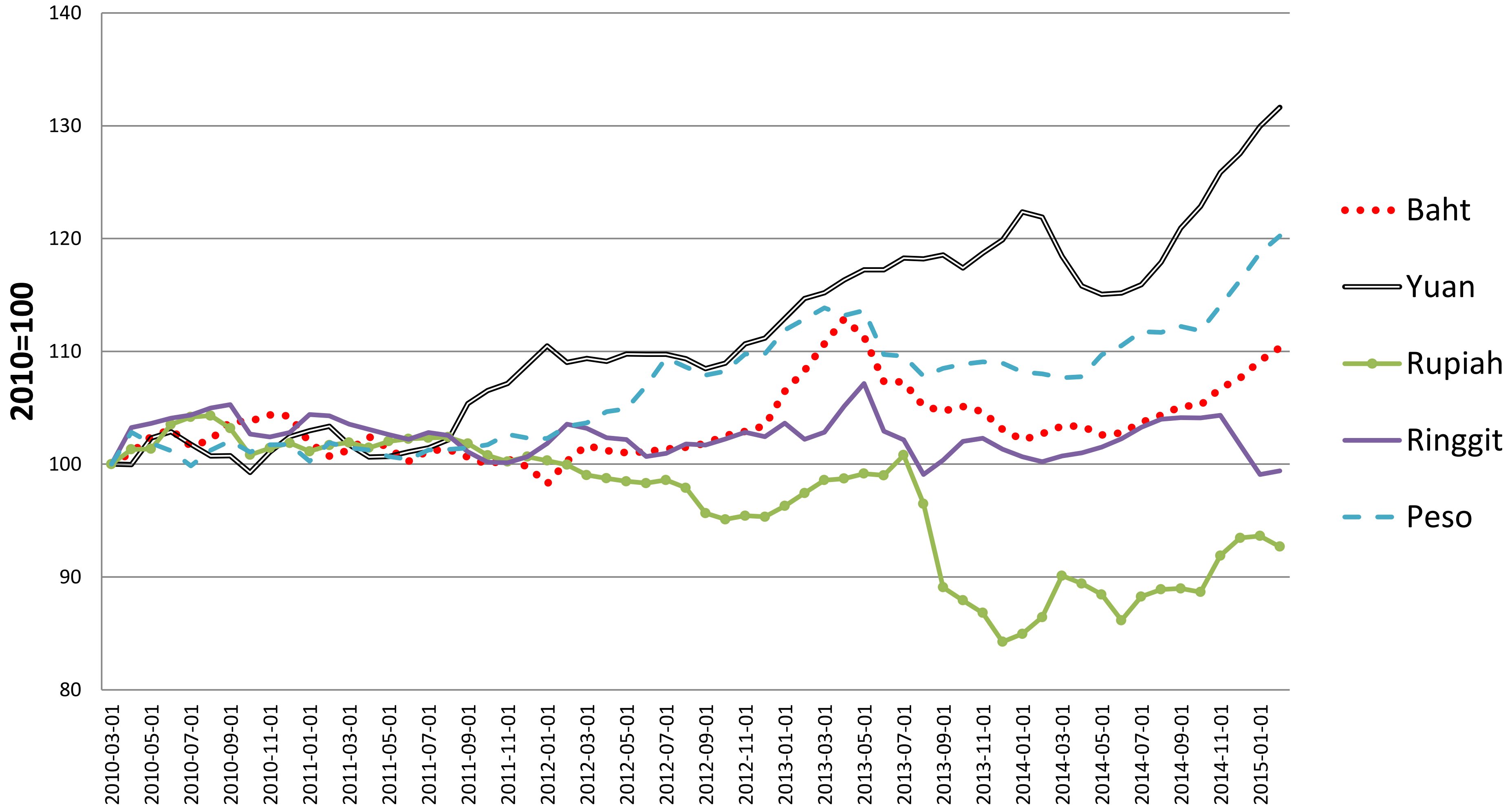
$$BP = NX\left(Y, \frac{eP_f}{P}\right) + CF\left(i - i_f - \frac{\Delta e}{e}\right)$$

$$\frac{\Delta e}{e} = \text{expected depreciation}$$

Determinants of current account balances

- Growth
- Real interest rates
- Capital inflows
- Inflation
- Exchange rates
- Fiscal imbalance
- *These determinants are intricately related.*

Figure 4: Real Effective Exchange Rates



What do ASEAN countries have in common?

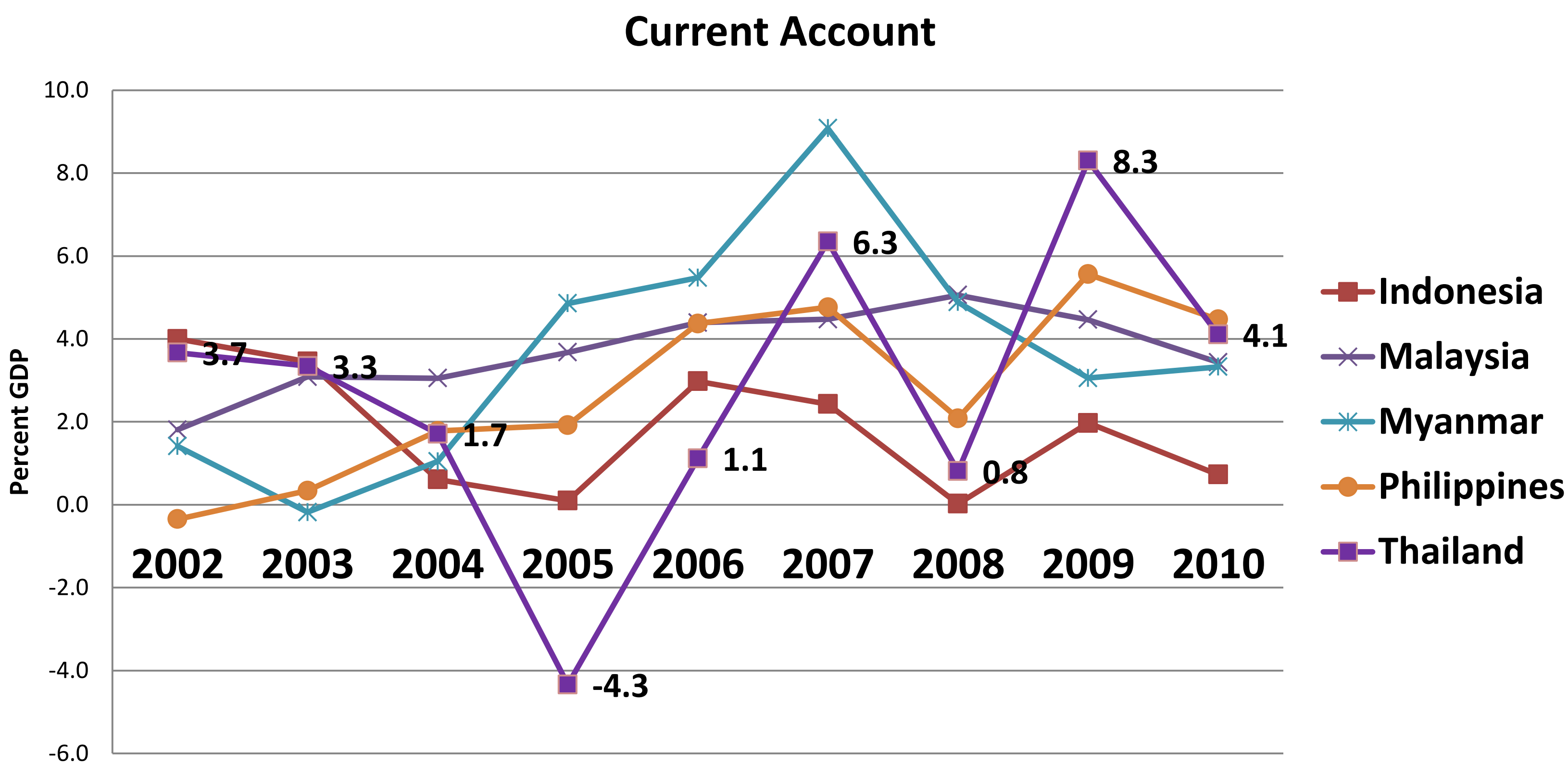
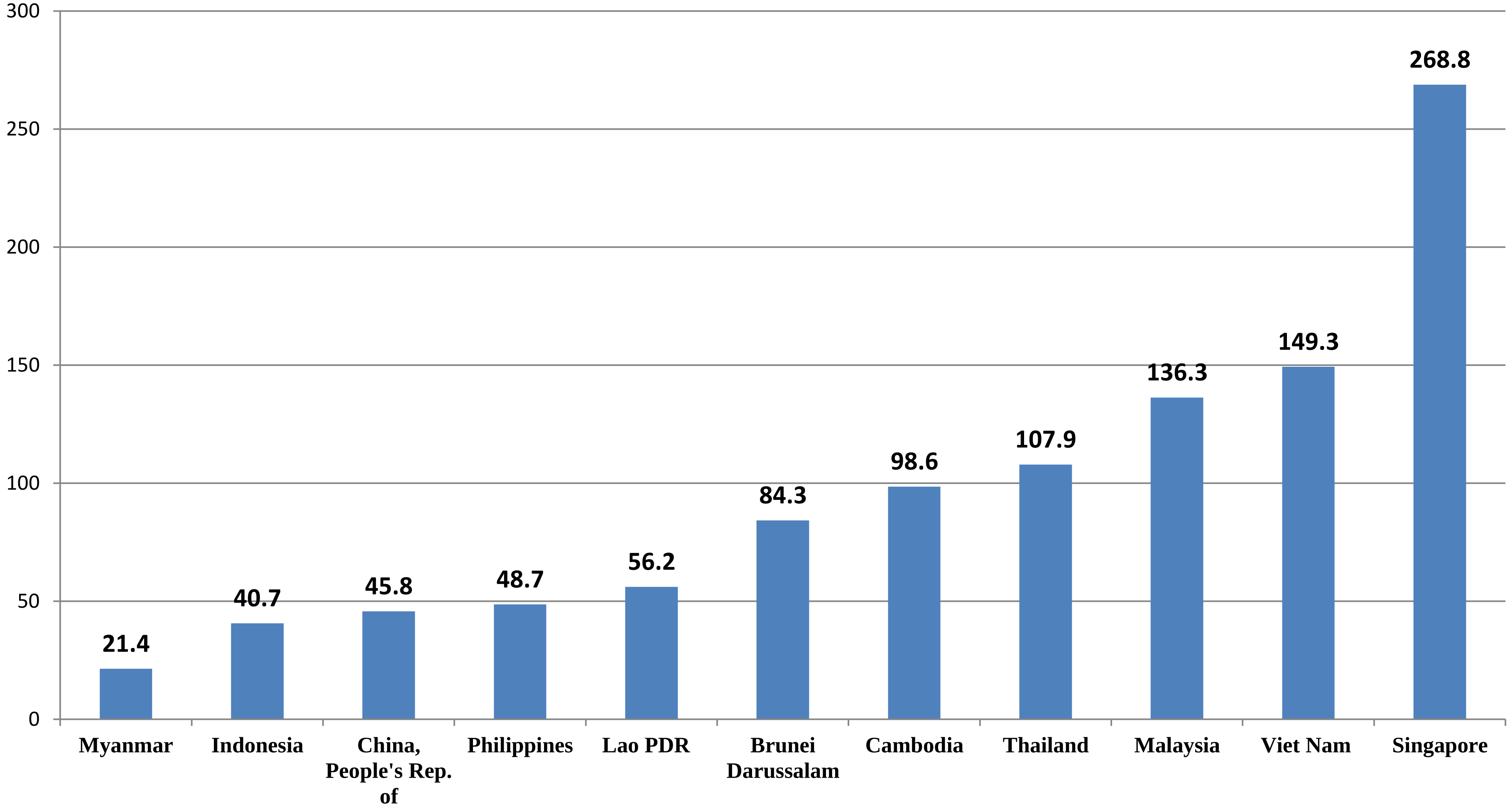


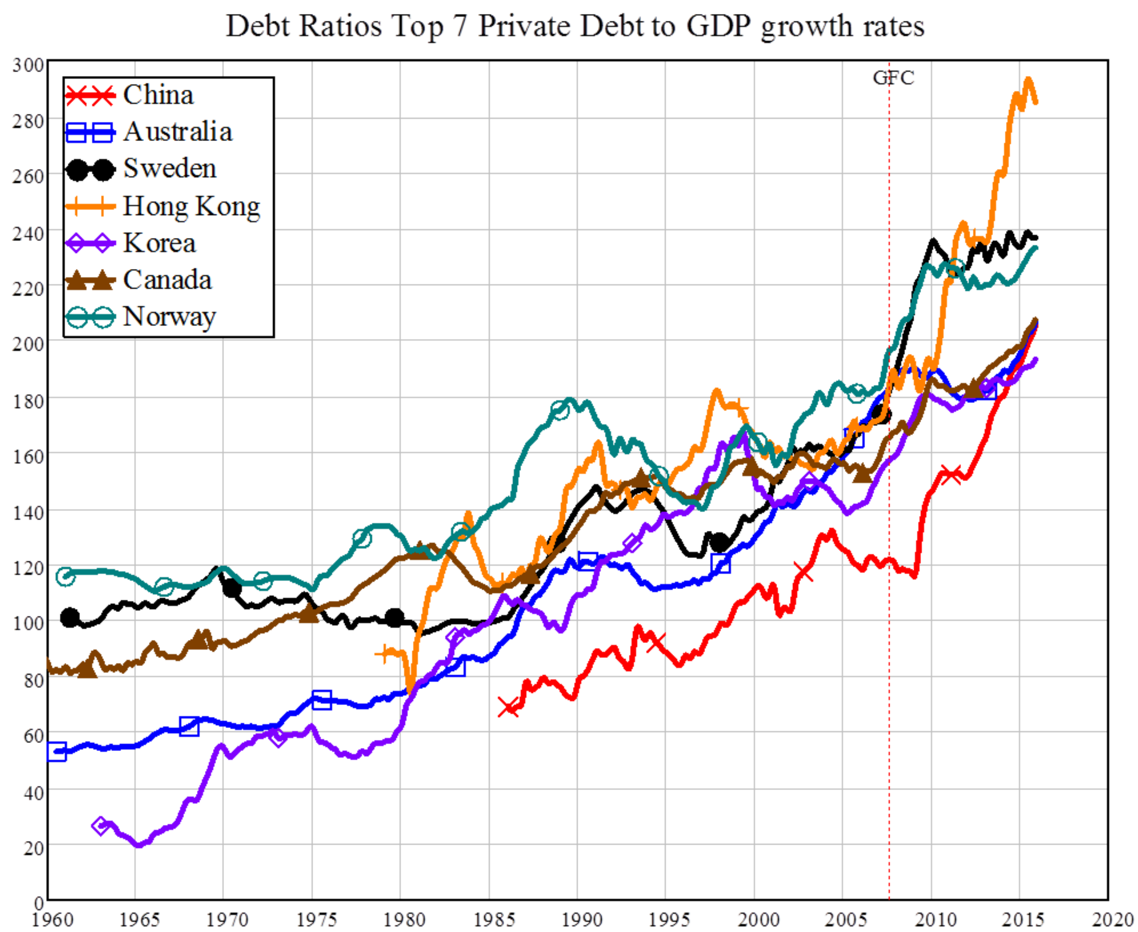
Figure 6: Average Degree of Trade Exposure 2010-2014



Growth, financial resource, and current account deficit

- Higher expected growth generates demand for credit requires by investors to expand their plants.
- Higher growth increases permanent income and raises saving deposits.
- If loan growth outpaces deposit growth, interest rates tend to rise.

Countries with private debt/GDP > 175% with debt growth in 2015 > 10% of GDP, ranked by debt growth



Why does strong growth lead to current account deficit?

- Output growth leads to strong demand for imports of raw materials and capital goods.
- If growth is not export-driven, growth can lead to problem with current account.

The dollar rallied in 2008–09 (on a fear trade during the panic) and then collapsed from 2009–2011 (on easing under QE1, QE2 and "Operation Twist"). In August 2011, the dollar hit an all-time low and, not coincidentally, the dollar price of gold hit an all-time high.

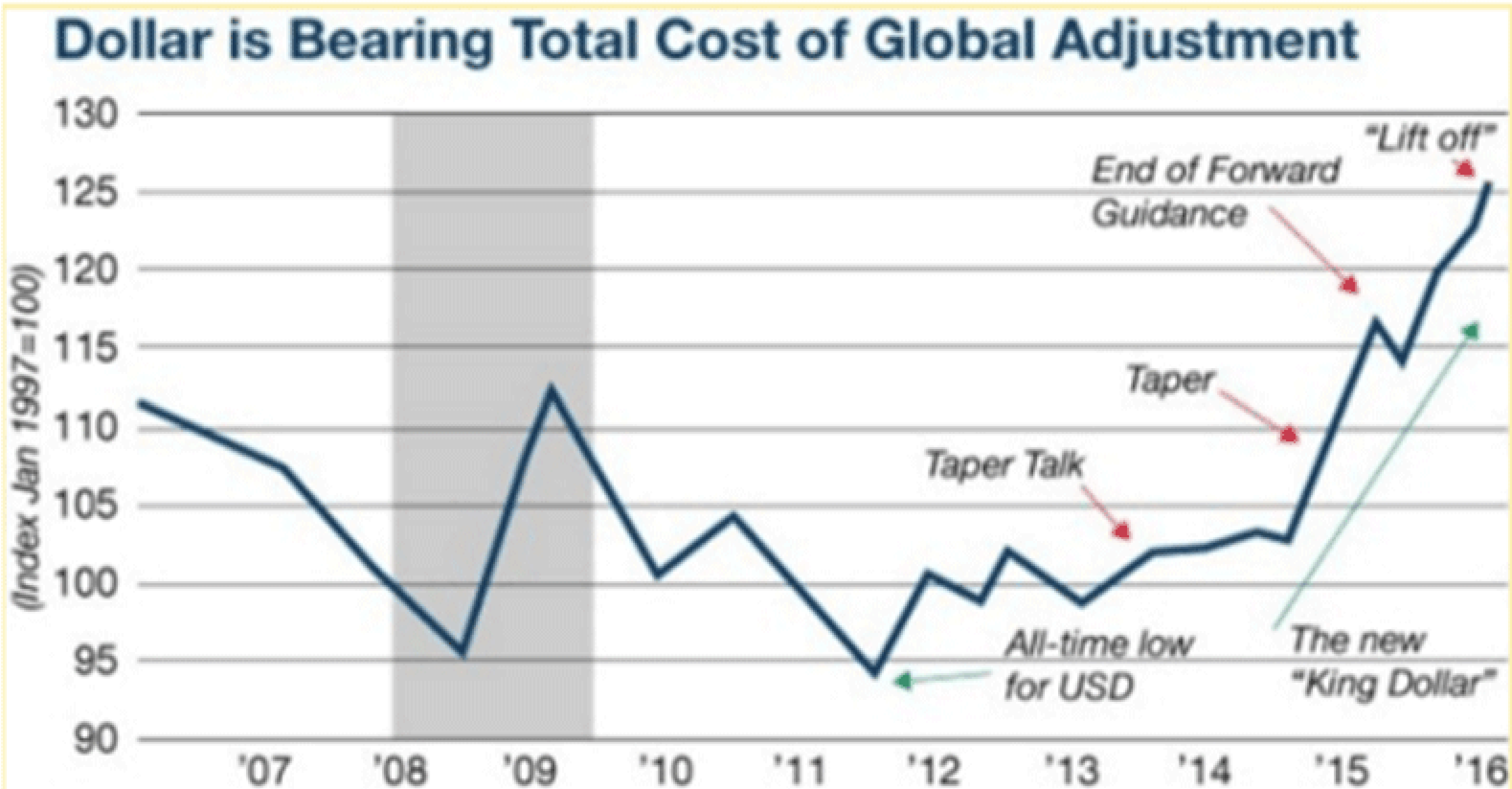
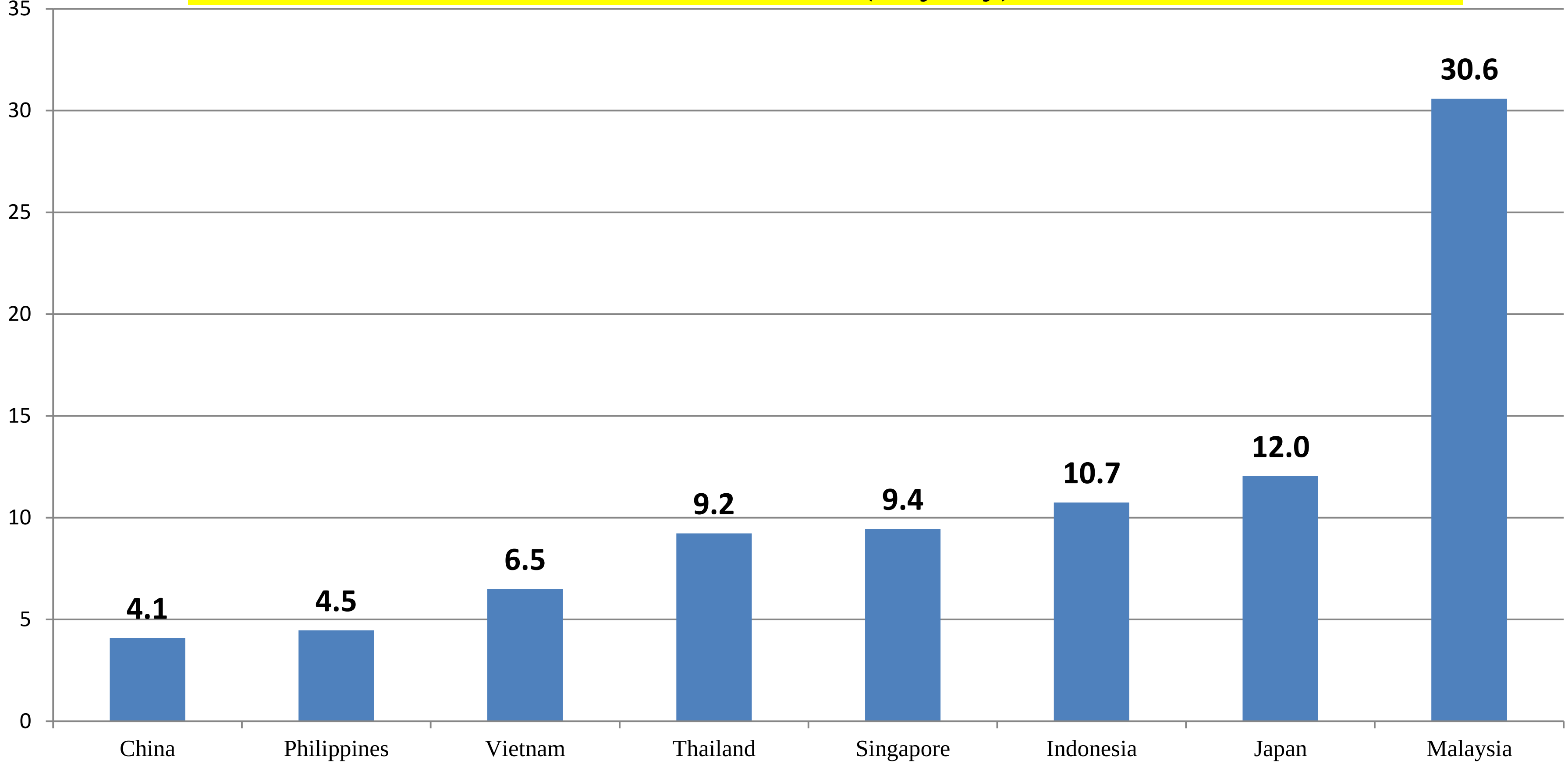


Figure 5: Asian Currency Depreciaiton agaist the US dollar

October 2015 (% y-o-y)



Why strong growth may lead to problems

- Investment rises faster than savings.
- Bank credit grows faster than deposits.
- Investment-savings gap is widening.
- Current account deficit deteriorates.
- However, during economic downturn, we observe surplus in current account.

As domestic interest rate rises

- Bank credit expands (supply of loan)
- Bank deposit grows
- Bank can borrow from abroad if domestic savings are insufficient.
- Demand for credit should fall, other things being equal.
- With higher expected growth, interest rate rises could lead to widening investment-saving gap.

Domestic credit to private sector (% of GDP)

Domestic credit to private sector refers to financial resources provided to the private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment.

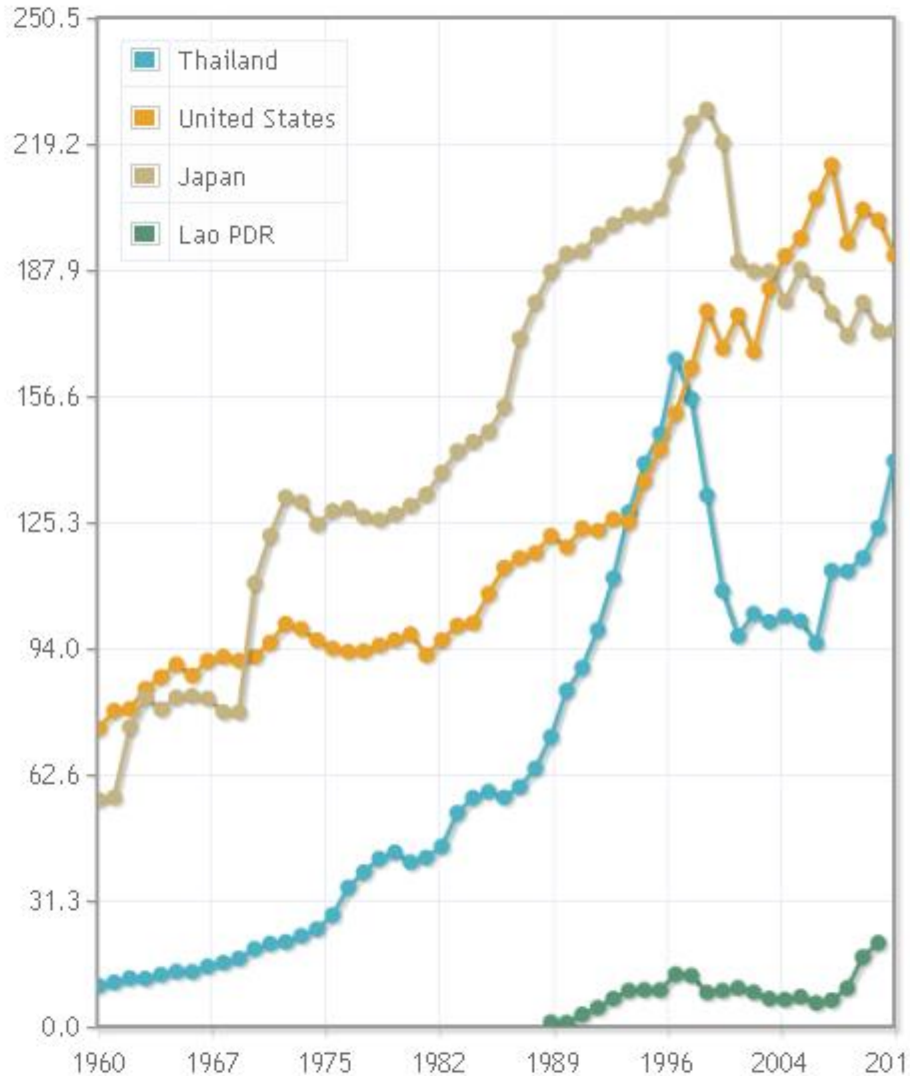


Figure 7: GDP Growth correlation with China import growth

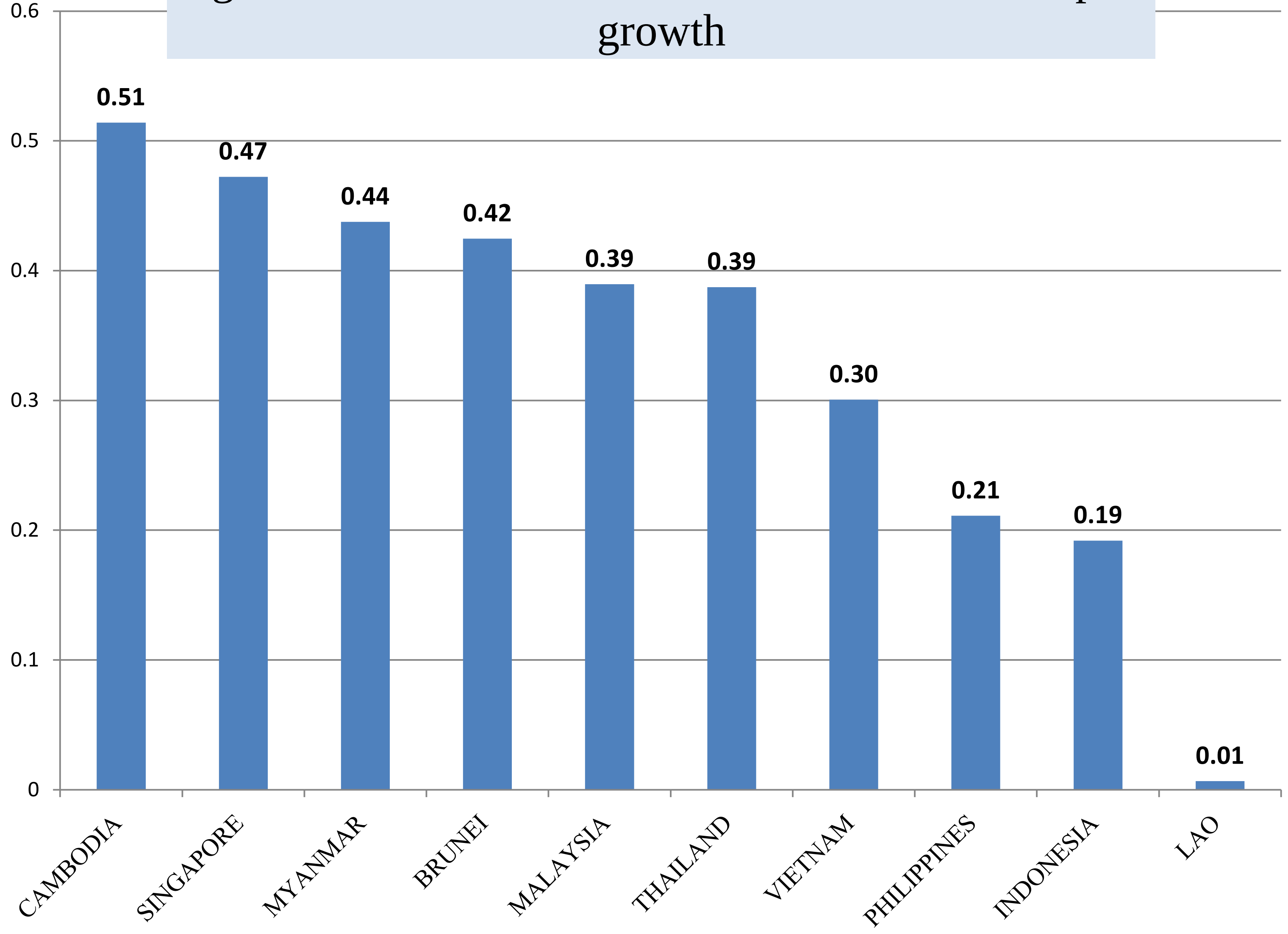


Table 1. China Dependency and ASEAN Trade Exposure

China Dependency	High trade exposure (% Trade/GDP)	Low trade exposure (% Trade/GDP)
HIGH (growth correlation- above 0.35)	Singapore (0.47), Malaysia (0.39), Thailand (0.39), Cambodia (0.51), Brunei(0.42)	Myanmar (0.44)
LOW (growth correlation- below 0.35)	Vietnam (0.3)	Indonesia (0.19), Lao (0.01), Philippines (0.2)
Source: Figures 6 and 7		

A conventional strategy

- Growth is the first priority, in particular export growth.
- Capital inflows propel private investment.
- Exchange rate appreciation should be delayed as much as possible.
- Engineer competitive (though unrealistic) exchange rates to drive exports.

Growth Drivers

- During period of growth acceleration, private consumption and investment play a leading role.
- During growth slowdown, with the absence of fiscal stimulus, net exports are the ***only*** growth driver.
- Favorable external markets conditions and competitive exchange rates helped to boost exports in 2007.
- The WTO predicts that world trade volume in 2016 would grow only 2.8 %, a significant decline from the previous year.

Concluding remarks

- There are equilibrating mechanisms, through exchange rate channel, to bring the economy back from imbalances to external balances.
- Exchange rates should be allowed to play equilibrating role in external balance adjustments.
- Delay the exchange rate adjustments would lead to substantial changes in output and exchange rates in the long run.