The Role of Exchange Rate Regimes and Capital Controls for Macroeconomic Stability

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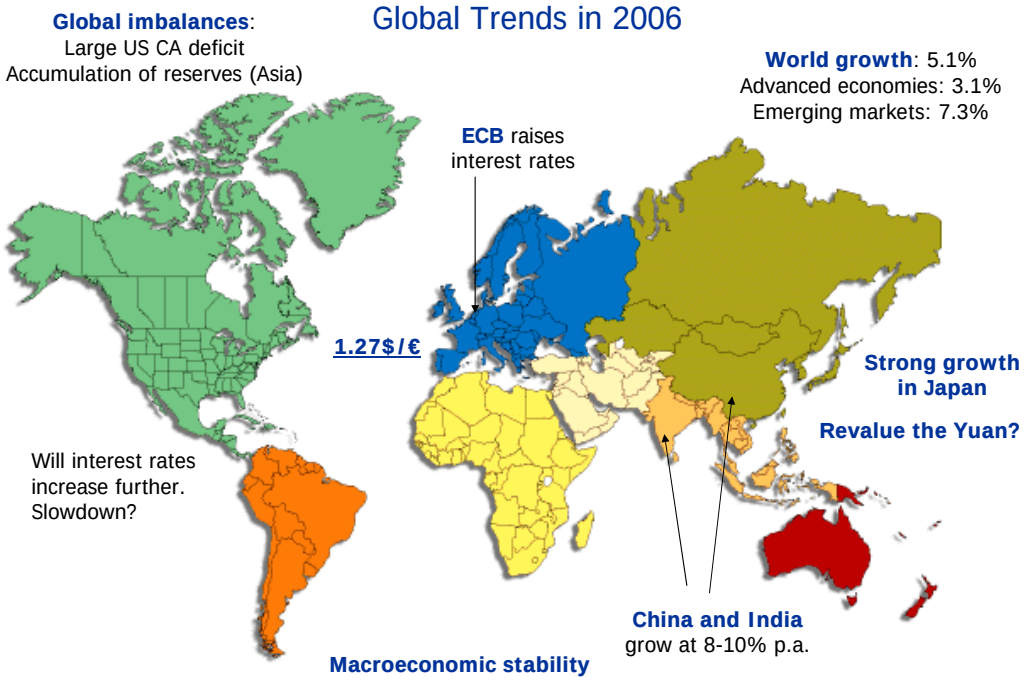
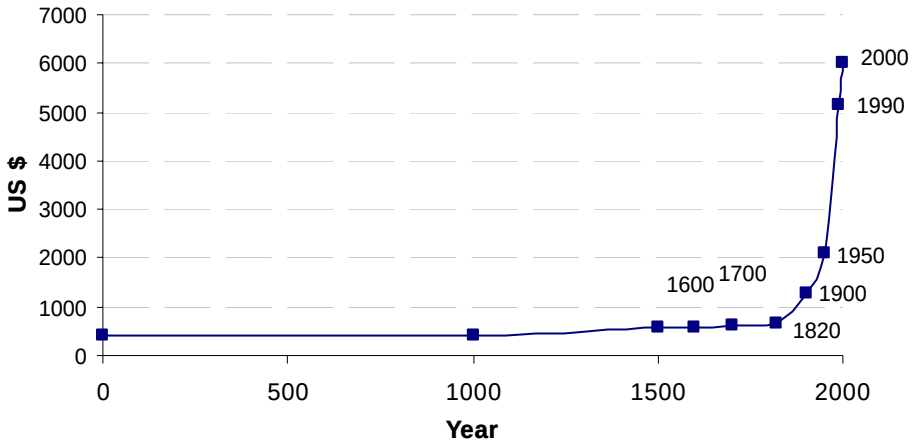
September 2006

Global Trends in 2006



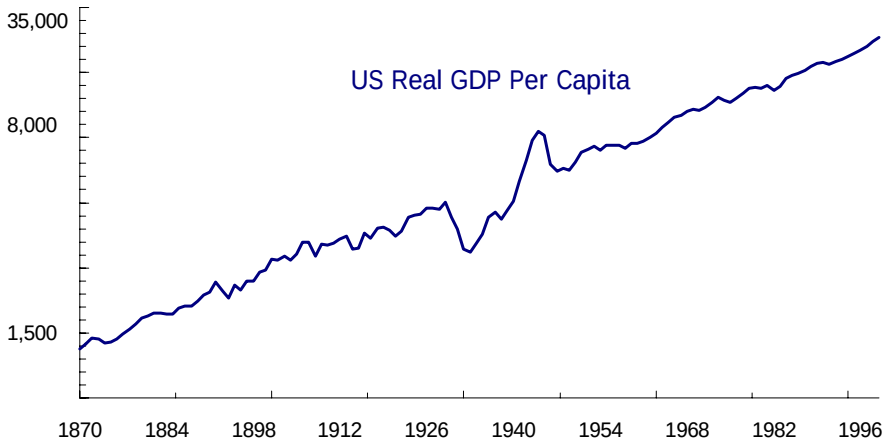
Part 1. Understanding Growth.

Income per Capita in Constant 1990 US Dollars



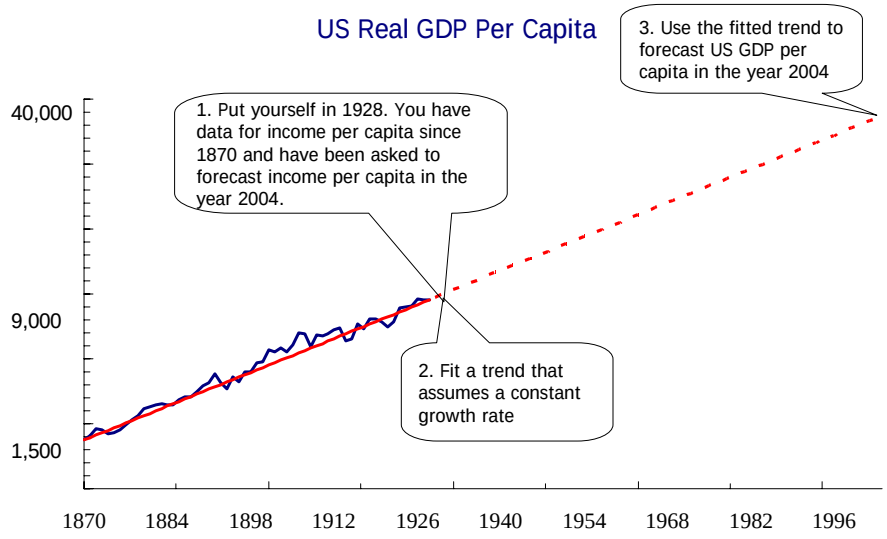
Source: Angus Maddison and the World Bank, 2003

Characterizing Growth over 100 Years



Log scale. Source: Jones (1995) and WDI (2005)

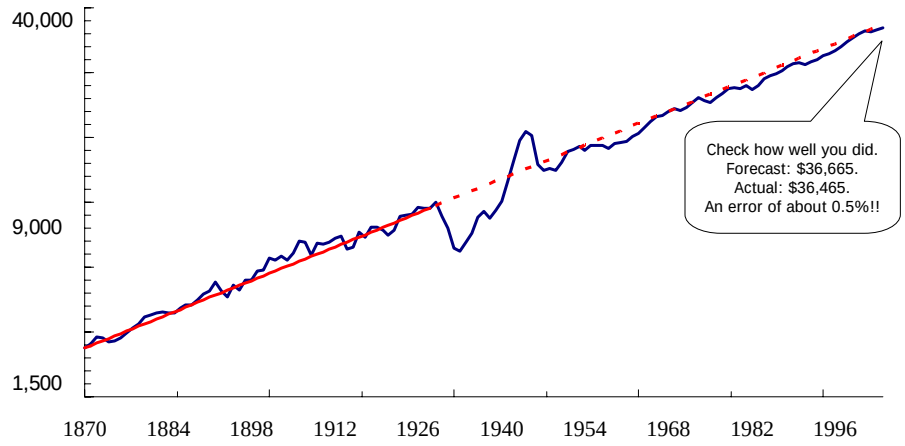
Forecasting 80 Years Ahead



Log scale. Source: Jones (1995) and WDI (2005)

Forecasting 80 Years Ahead

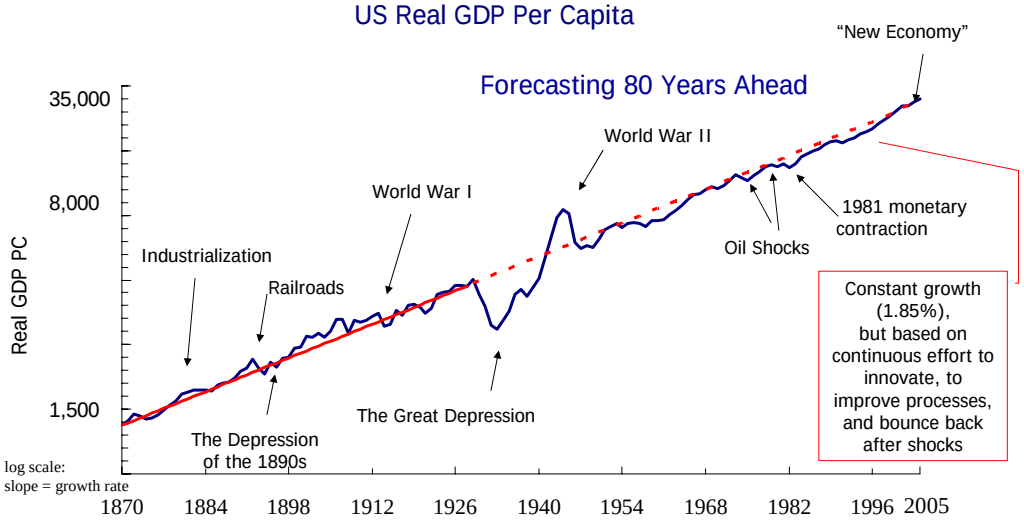
US Real GDP Per Capita



Log scale. Source: Jones (1995) and WDI (2005)

Does this mean nothing matters?

US Real GDP Per Capita



Log scale. Source: Jones (1995) and WDI (2005)

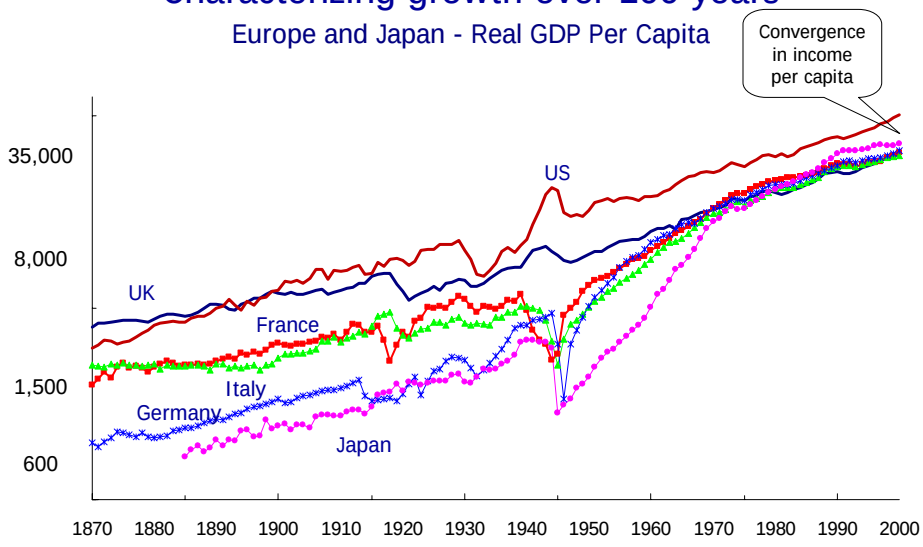
Characterizing Growth over 100 Years

The US Economy

- ✓ Very stable growth rates over the period 1870-2000
- ✓ Do not take this growth rate for granted. It is based on a continuous effort to innovate, to improve production processes. A succession of small revolutions (like “the new economy”)
- ✓ The US economy seems to be at a ‘steady-state’ where economic conditions are such that investment and research efforts undertook by companies over this period have produced a fairly even pattern of growth in economic activity
- ✓ This pattern is surprising giving the amount of changes we have seen over this century. For example R&D to sales ratio are today much higher than 100 years ago. Why doesn’t it lead to higher productivity growth?

Characterizing growth over 100 years

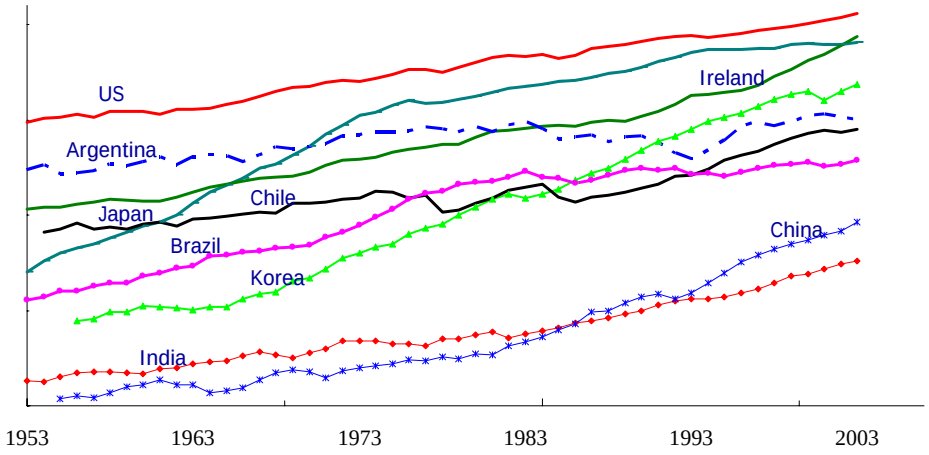
Europe and Japan - Real GDP Per Capita



Log scale. Source: Jones (1995) and WDI (2005)

Growth over 50 years

The Rest of the World - Real GDP Per Capita



log scale

What drives growth differences?

Production is the result of two factors:

1. Inputs in the production process: hours, capital (a result of investment in physical, human, knowledge)

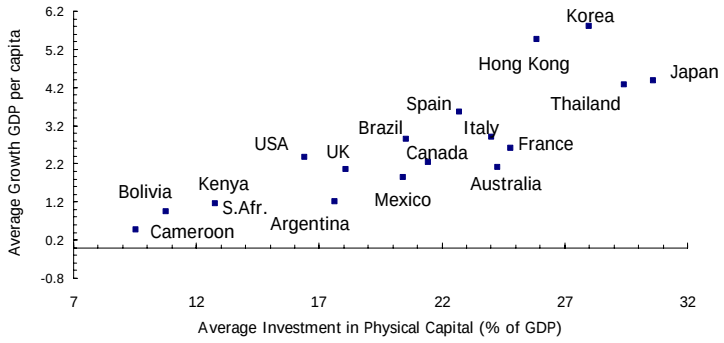
2. Their productivity, which is also driven by investment in capital, knowledge, technology.

Hypothesis: **Countries that invest more grow faster.**

Investment and Growth

The main determinant of growth is accumulation of capital. Countries with higher investment rates have outperformed countries with low investment rates.

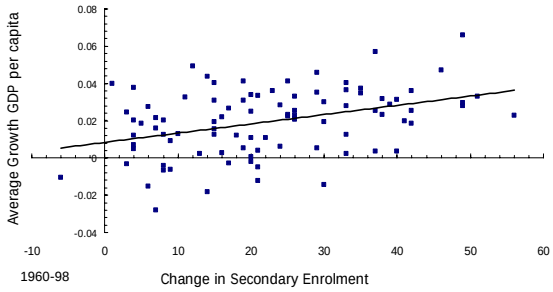
Investing to Grow



1960-98

Other Factors Explaining Cross-Country GDP Differences

The second largest determinant of long-term growth is **investment in human capital**. Measured by the % of population in secondary education, there is a positive influence on growth.



1960-98

- Human capital plus physical capital together explain about 40% of cross-country variation in Y/L
- The remaining **60% is due to unexplained variation in A**! What can explain this remaining variation?
  - "Social Infrastructure"
  - "Good Governance"

Determinants of Economic Growth

Productivity (technological progress)

Investment (in physical capital, in education).

Countries that are more open to international trade make more productive investments and import new technologies from other countries.

Also, countries with very high population rates have done relatively worse.

But… what drives Investment?

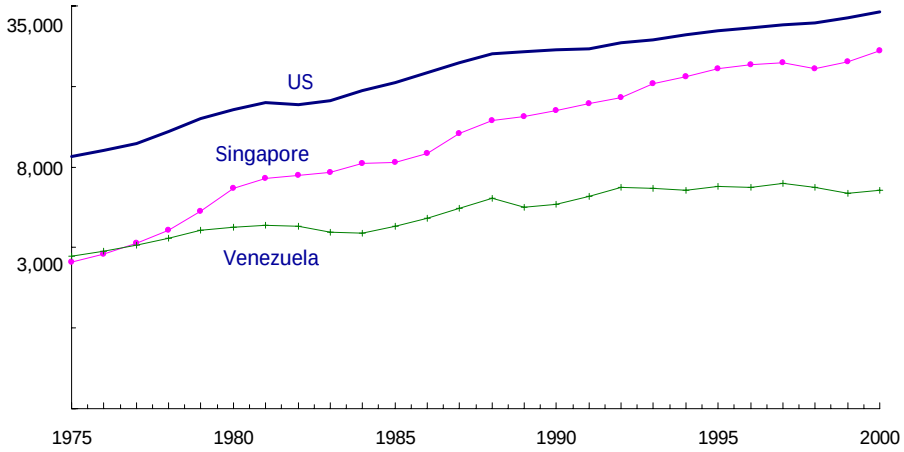
Institutions: property rights, absence of corruption, good governments
Stability (macroeconomic and political)

Economic Growth: The 4 I's

Innovation	The **incentives** to innovate (e.g. respect of intellectual property rights) will drive up the productivity growth in the country. This is the main force behind growth in the developed countries.	US, Japan, France, Germany
Initial conditions	Provides the potential for 'catching up'. Poor countries can grow faster when they set on a convergence path to the rich economies.	China today, Singapore in 80s
Investment	A key ingredient in the process of convergence is the building up of the capital stock. This requires high investment rates. Miracles are countries with investment of over 25% of GDP. In addition to physical investment, it is important to invest in human capital, efficiency, technology What drives investment: stability, institutions.	High growth (Korea) 35%; Steady state (US, Germany) – 18%
Institutions	The best way to ensure sound macroeconomic policies (i.e. stability) and political stability is to build institutions that create **incentives** for stability: Independent central bank, checks and balances, rule of law, transparency. These institutions facilitate business creation.	There is no country that has become rich with poor-quality institutions

Catching up

US, Singapore and Venezuela - Real GDP Per Capita

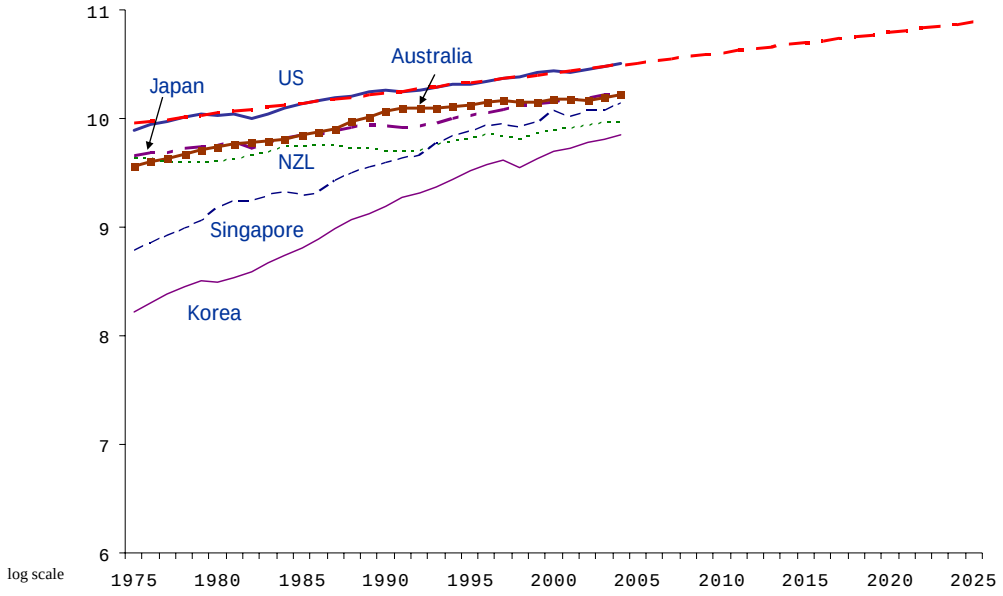


log scale

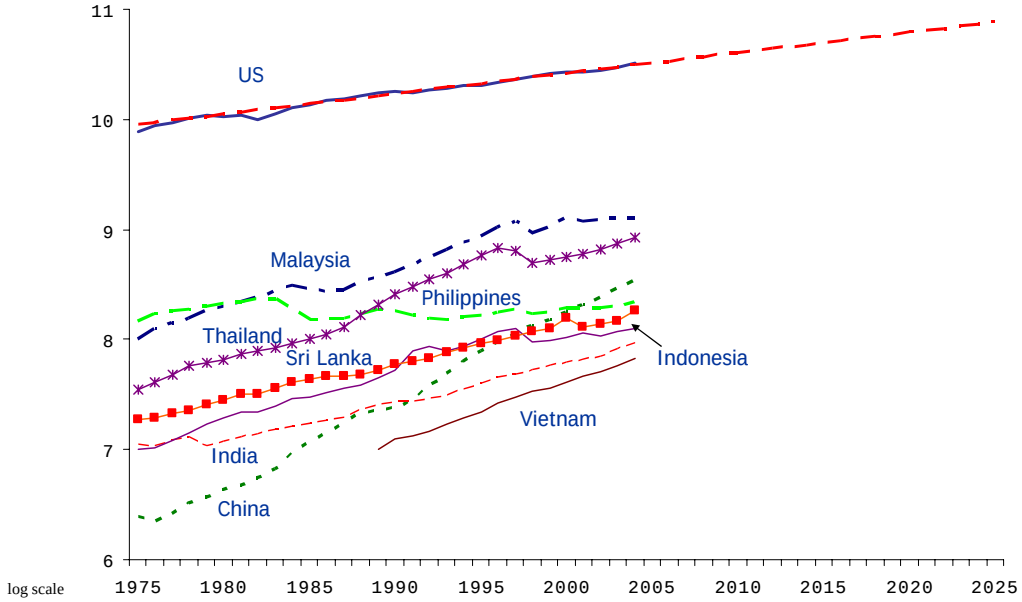
Part 2. Potential for Growth and Challenges for the Region.

- ✓ Potential for **catching up**: How long can we expect growth to continue in China?
- ✓ **Institutional reforms**. Can China become rich with the current institutions?
- ✓ Exchange rate flexibility and capital controls. When does the **exchange rate regime** matter for growth?
- ✓ Does **financial liberalization** affect growth or create potential for crises?
- ✓ Going back to the **global economic environment**: What are the dangers?

Asia-Pacific High Income Countries



Asia-Pacific High-Potential Countries



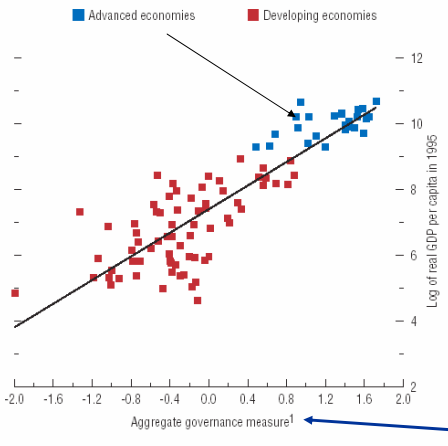
Asia Pacific: Conditions for Long-term Growth

Country	Initial GDP per capita (USD)	Investment rate (2000-2004)	Governance indicator (rank in brackets)	Doing business 2007 (2006 rank)
Australia	27,872	23.05%	1.64 (10)	**8 (9)**
Japan	27,338	24.98%	1.13 (29)	**11 (12)**
Korea	18,853	29.67%	0.61 (59)	23 (23)
New Zealand	21,205	21.06%	1.85 (4)	2 (1)
Singapore	25,240	23.02%	1.62 (12)	**1 (2)**
China	5,085	40.86%	-0.49 (125)	**93 (108)**
India	2,883	22.66%	-0.26 (113)	**134 (138)**
Indonesia	3,316	20.99%	-0.73 (153)	135 (131)
Malaysia	9,033	23.40%	0.38 (72)	25 (25)
Philippines	4,218	18.23%	-0.41 (125)	126 (121)
Sri Lanka	3,862	23.65%	-0.24 (111)	89 (89)
Thailand	7,570	24.58%	0.03 (91)	**18 (19)**
Vietnam	2,503	32.27%	-0.60 (141)	**98 (104)**

The Role of Institutions

Figure 3.2. Relationship Between Income and Institutions

Real income per capita is closely correlated with institutional quality.



Sources: Kaufmann, Kraay, and Zoido-Lobatón (1999); World Bank, *World Development Indicators* (2002); and IMF staff calculations.
[1]This index measures the overall quality of governance, including the degree of corruption, political rights, public sector efficiency, and regulatory burdens (for further details, see Appendix 3.1).

Real GDP per capita (in logs) in 1995

Institutional quality (index)

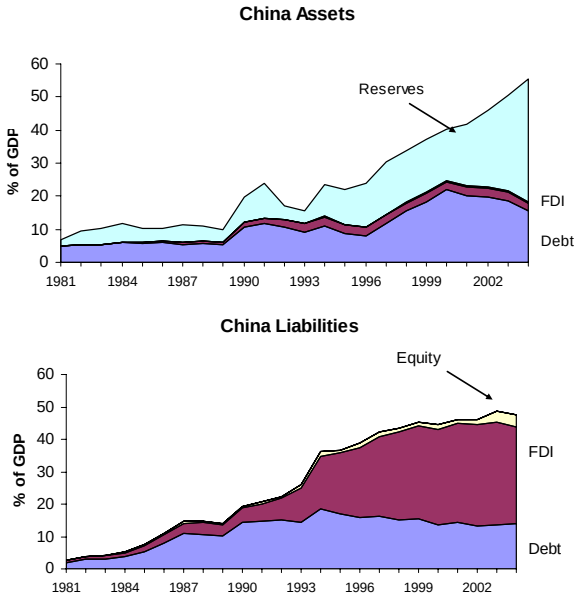
Exchange Rate Flexibility

- ✓ Does the exchange rate regime matter? (not convincing evidence)
- ✓ **Why should China reform?**
- ✓ How should China reform?
- ✓ Malaysia?

Financial Liberalization

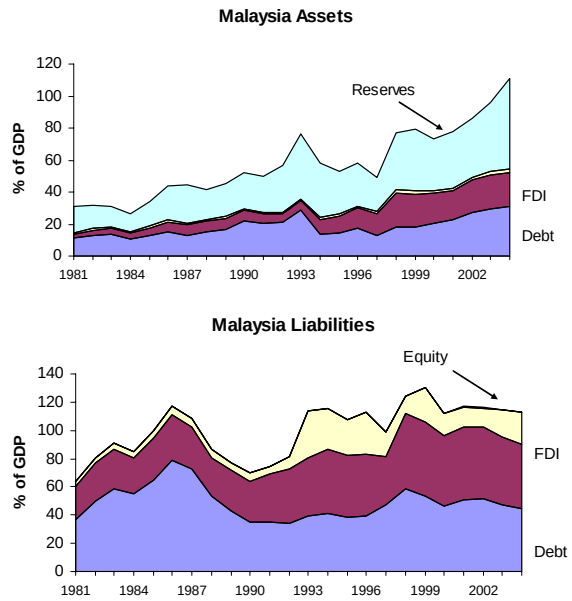
- ✓ Does it really matter for growth? Capital controls predict currency crises, and hinder growth, but the evidence is mixed.
- ✓ Where are China and Malaysia now in terms of financial openness?
- ✓ **How to reform?**
- ✓ When? Is it advisable to lift protection now when interest rates in the world are increasing?

Financial Openness (China)



- ✓ Since 2002 China has become a net exporter of capital!
- ✓ Little diversification. Portfolio equity assets are virtually zero.

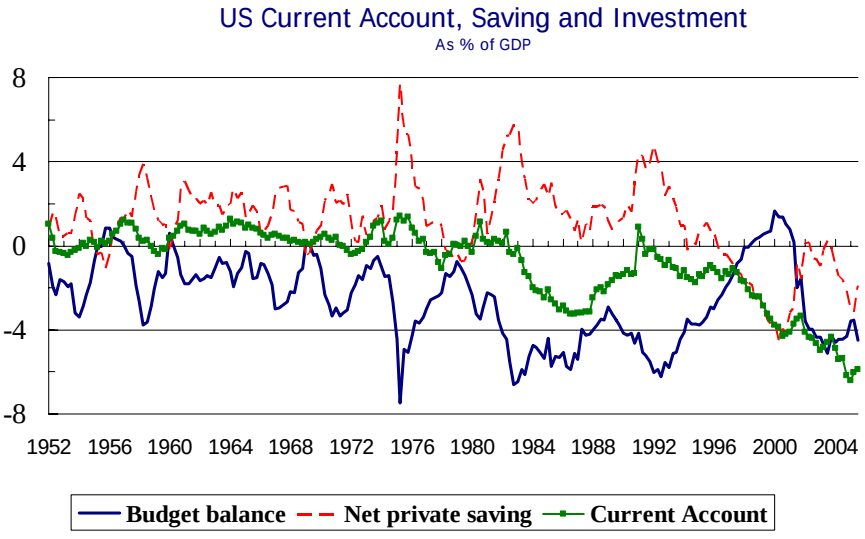
Financial Openness (Malaysia)



- ✓ Similar picture for Malaysia – in 2004 total foreign assets and liabilities became equal. Given the CA surpluses in the last two years, Malaysia has also become an exporter of capital.
- ✓ Slightly better diversification.

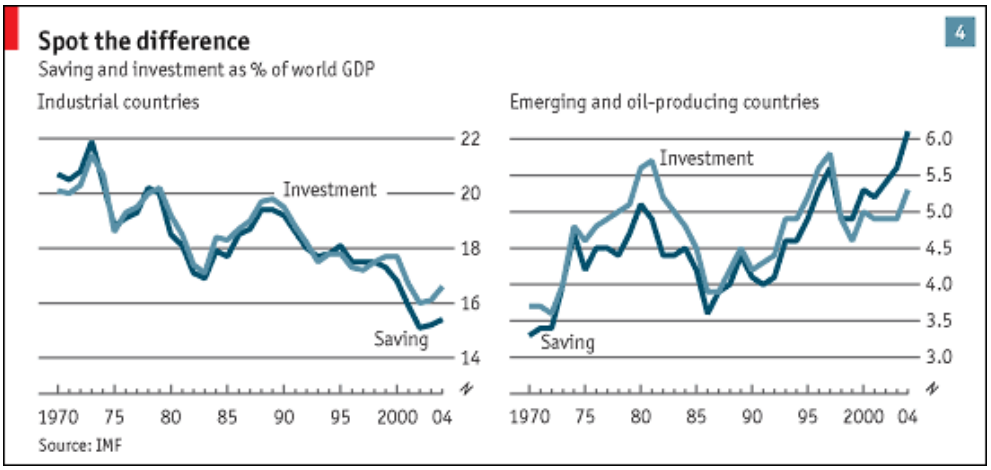
Global Imbalances

- ✓ Data – what is the current state?
- ✓ What are the possible trajectories?
  - ✓ No change in policy
  - ✓ Disorderly unwinding of the imbalances.
  - ✓ Policy change.
- ✓ **What are the implications for emerging Asia?**

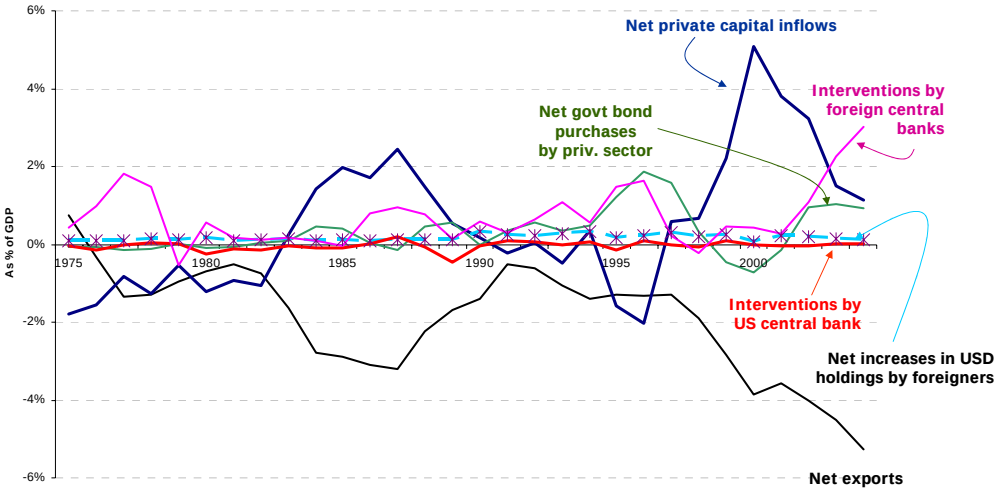


Source: BEA NIPA Table 5.1

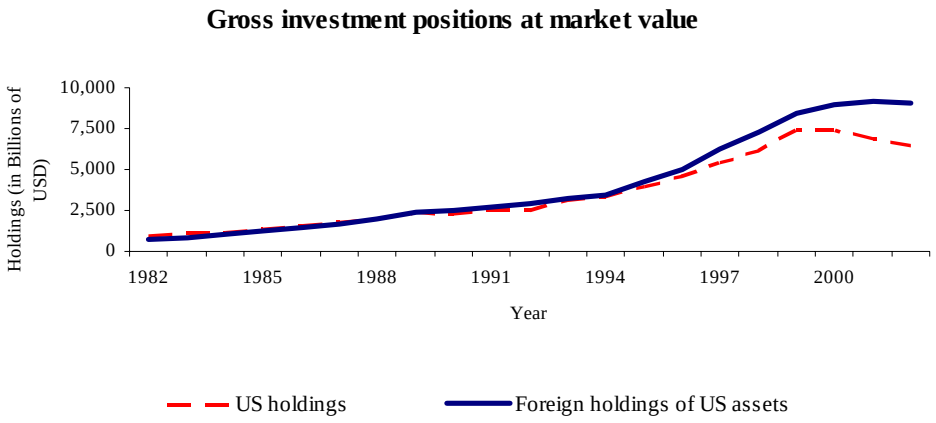
Saving and Investment in the World Today



The Nature of Capital Flows to the US
Financing the Current Account Deficit



The Evolution of the Foreign Asset Position of the US



Summary

- ✓ **Success** has been a result of providing the **appropriate conditions** (macroeconomic and institutional) for investment and, more generally, for business creation to take place.
- ✓ Will it continue?