China in the World Economy

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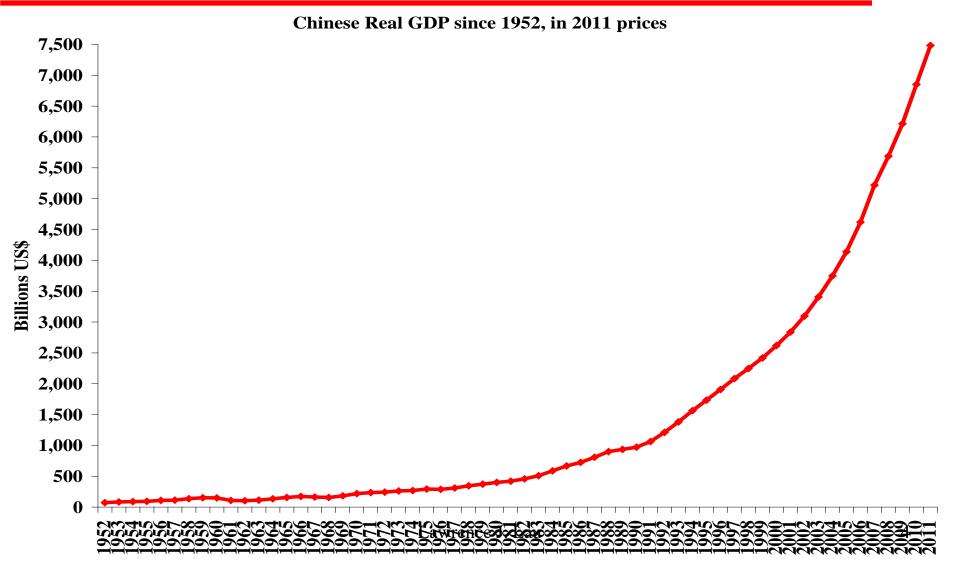
Outline

- Introduction
- China in the World Economy
- The Internationalisation of the Renminbi
- Concluding Remarks

Introduction

- China has made tremendous progress in its economic development since it began its economic reform and opened to the World in 1978. China is currently the fastest growing economy in the World—averaging 9.8% per annum over the past 33 years. It is historically unprecedented for an economy to grow at such a high rate over such a long period of time.
- Between 1978 and 2011, Chinese real GDP grew almost 22 times, from US\$344.8 billion to nearly US\$7.5 trillion (2011 prices) to become the second largest economy in the World, after the U.S.
- By comparison, the U.S. GDP (approx. US\$15.1 trillion) was 2 times Chinese GDP in 2011.

Chinese Real GDP in US\$ Since 1952 (2011 Prices)

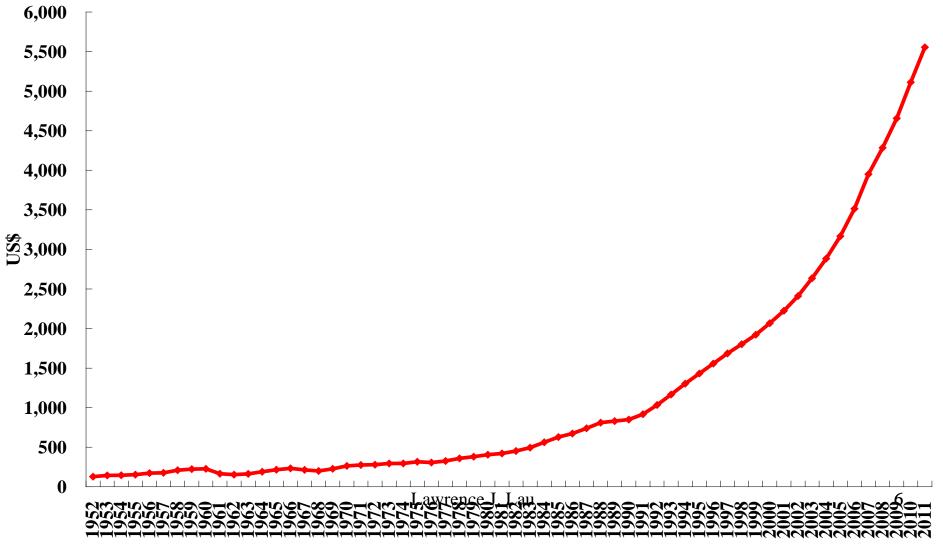


Introduction

- Despite its rapid growth, in terms of its real GDP per capita, China is still a developing economy.
- Between 1978 and 2011, Chinese real GDP per capita grew 15.5 times, from US\$358 to US\$5,555 (in 2011 prices). By comparison, the U.S. GDP per capita (approx. US\$48,236) was 8.7 times Chinese GDP per capita in 2011.

Real Chinese GDP per Capita in US\$ Since 1952 (2011 Prices)

Real Chinese GDP per Capita since 1952, in 2011 prices



Introduction

- While many problems have arisen in the Chinese economy within the past decade— for example, income disparity--both inter-regional and intra-regional--uneven access to basic education and health care, environmental degradation, inadequate infrastructure and corruption—it is fair to say that everyone has benefited from the economic reform and opening since 1978, albeit to varying degrees, and few want to return to the central planning days.
- The Chinese Government leaders have also demonstrated their ability to confront important challenges and solve difficult problems, for example, the earthquakes, the 2007-9 global financial crisis, and the European sovereign debt crisis.
- China is one of the very few socialist countries that have made a smooth transition from a centrally planned to a market economy. It is a model for other transition economies such as Vietnam and potential transition economies such as Cuba, Laos, and North Korea.

Thirty years of Chinese Economic Reform

	Growth Rates		
	percent p	percent per annum	
	Period I	Period II	
	1952-1978	1978-2011	
Real GDP	6.15	9.79	
Real GDP per Capita	4.06	8.66	
Exports	9.99	17.32	
Imports	9.14	16.63	
Inflation Rates (GDP deflator)	0.50	4.24	
	1952-1978	1978-2010	
Real Consumption Lawrence J. Law	5.05	8.88 8	
Real Consumption per Capita	2.99	7.75	

The Shifting Centre of Gravity of the World Economy

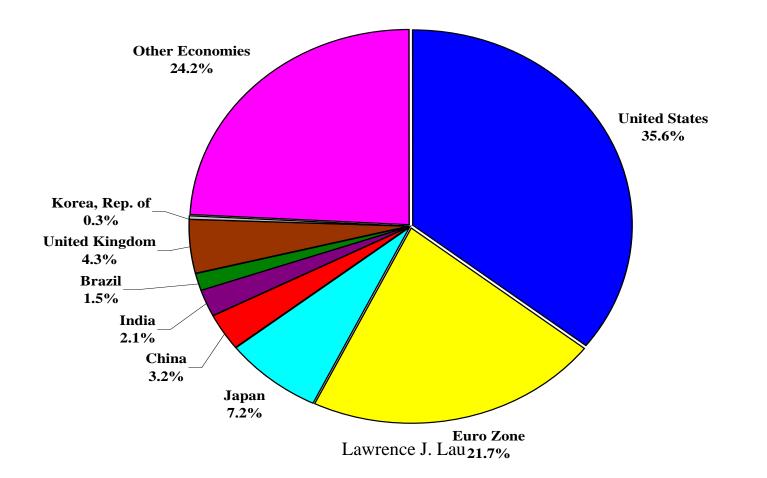
- The centre of gravity of the World economy is gradually shifting from the United States and Europe to Asia, including both East Asia and South Asia.
- The East Asian economies are partially de-coupled from the rest of the World economy, as evidenced by the strong performance of the Chinese, Indian and other East Asian economies during the 2007-2009 global financial crisis as well as the current European sovereign debt crisis.
- However, the Chinese and East Asian economies are not large enough to turn the World economy around. The idea of a G-2 consisting of the United States and China is premature.

The Distribution of World GDP

- In 1970, the United States constituted 35.6% of the World GDP whereas China only constituted 3.2%.
- By 2010, the United States constituted 23.1% of the World GDP whereas China constituted 9.3%.
- The East Asian share of World GDP rose from 10% in 1970 to just below a quarter today.

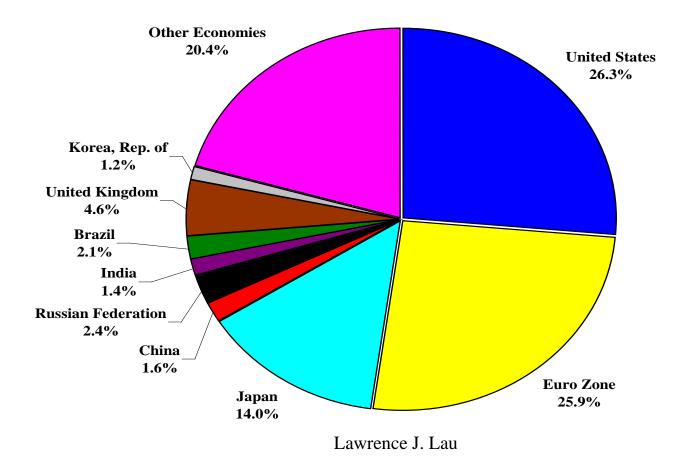
The Distribution of World GDP, 1970, US\$



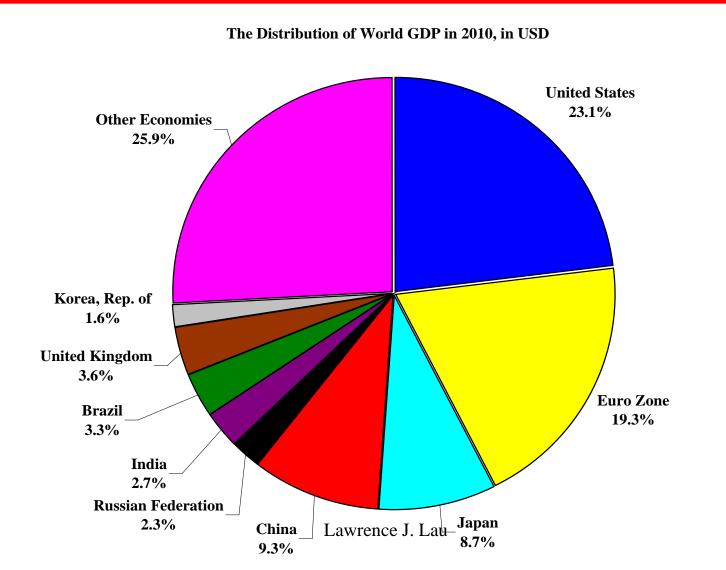


The Distribution of World GDP, 1990, US\$





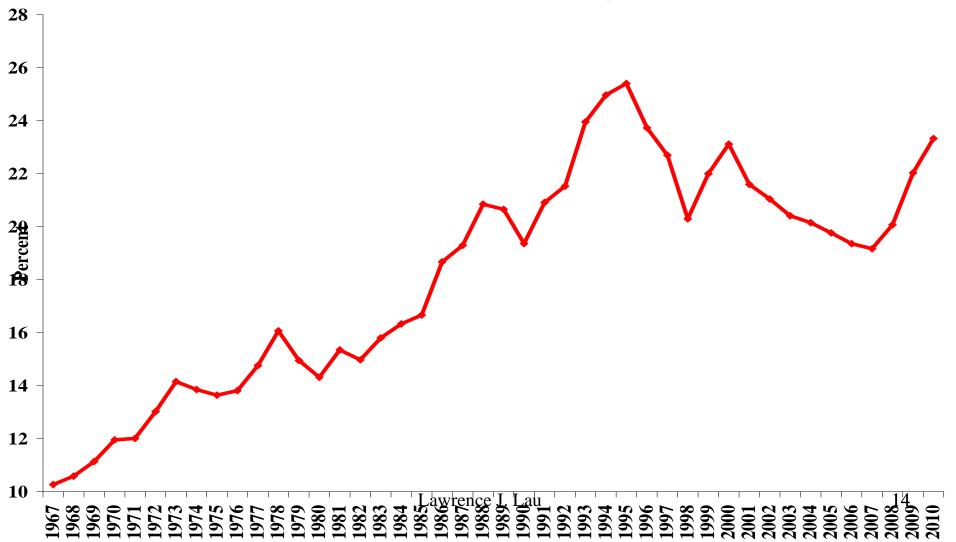
The Distribution of World GDP, 2010, US\$



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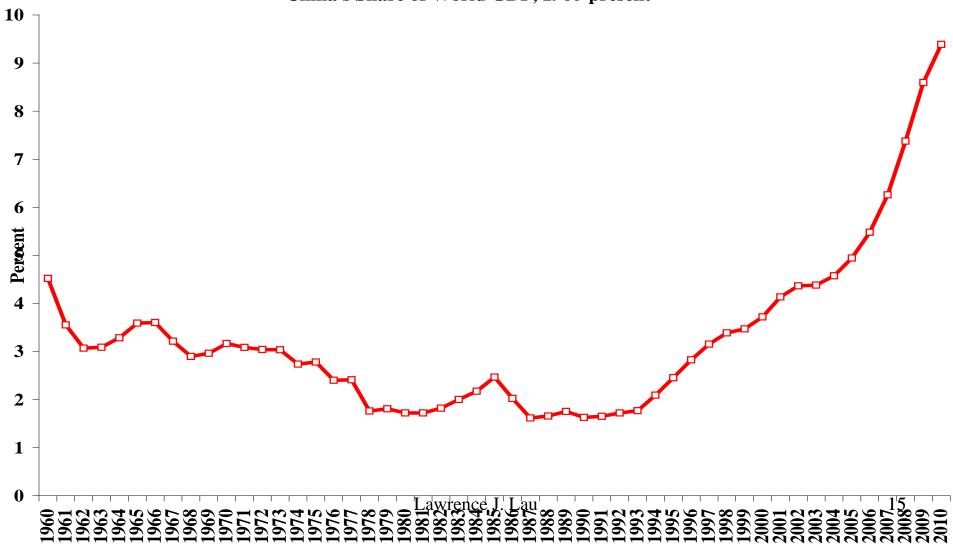
East Asian Share of World GDP, current prices, 1960-present

East Asian Share of World GDP, 1960-present



China's Share of World GDP, current prices, 1960-present

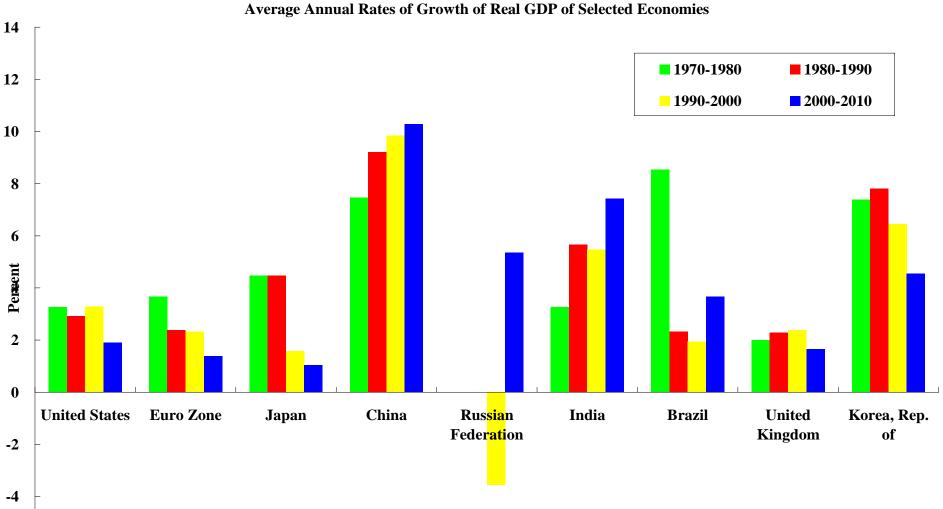
China's Share of World GDP, 1960-present



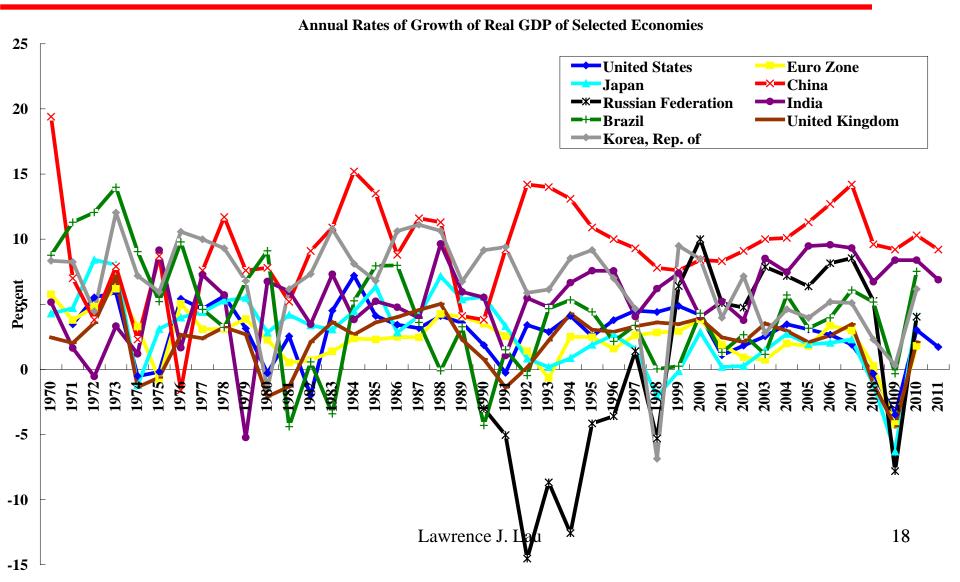
The Rates of Growth of GDP

- In the developed economies, the real rates of growth have been declining.
- In contrast, in the BRIC (Brasil, Russia, India and China) countries, the real rates of growth have been rising.

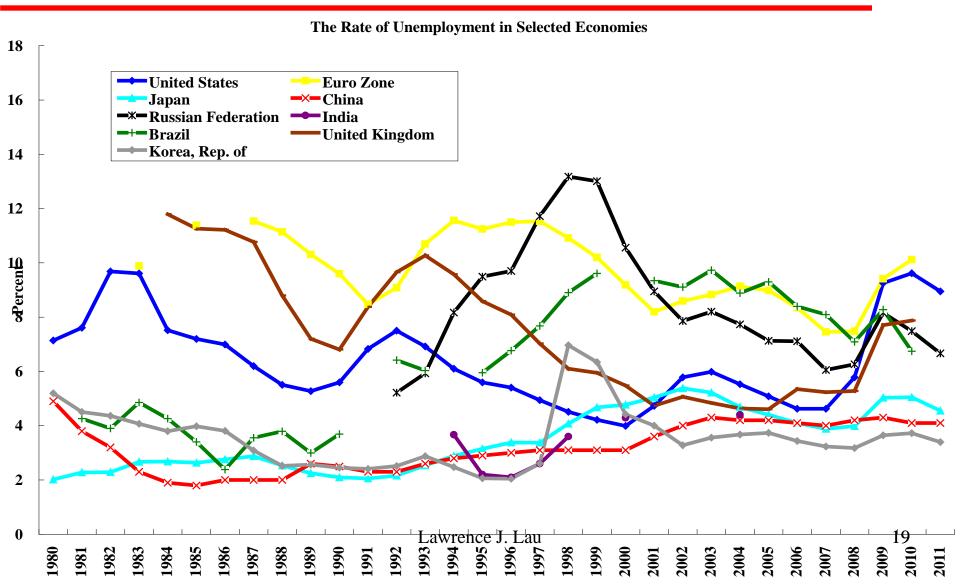
Average Annual Rates of Growth of Real GDP of Selected Economies



Annual Rates of Growth of Real GDP of Selected Economies

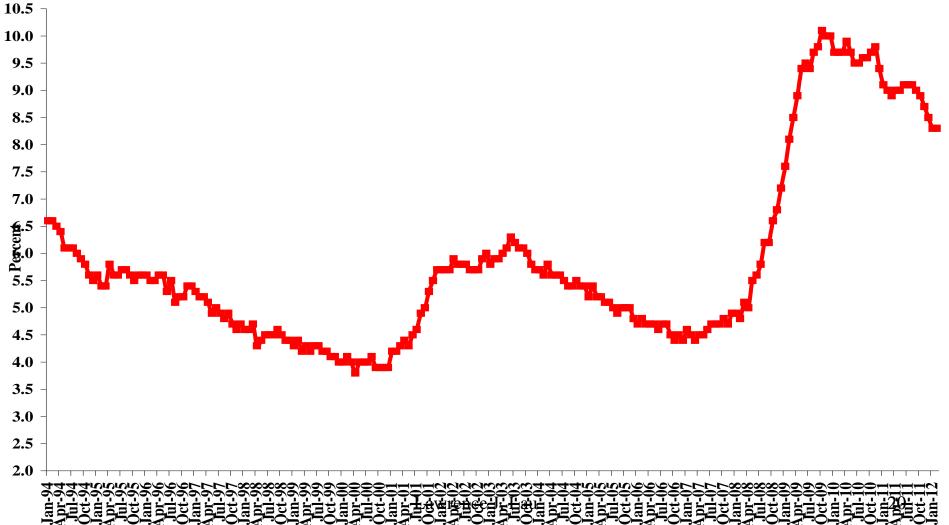


The Rate of Unemployment in Selected Economies

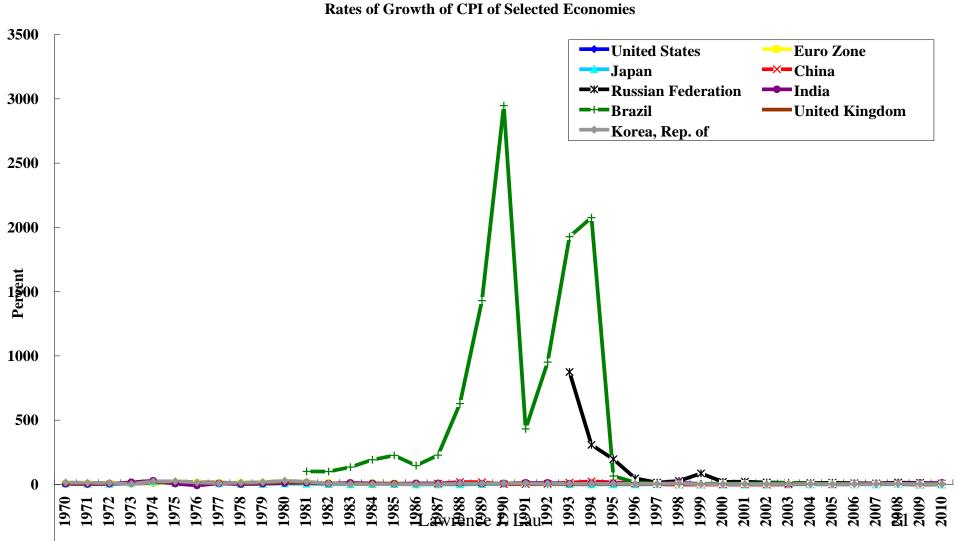


U.S. Unemployment Rate Seasonally Adjusted

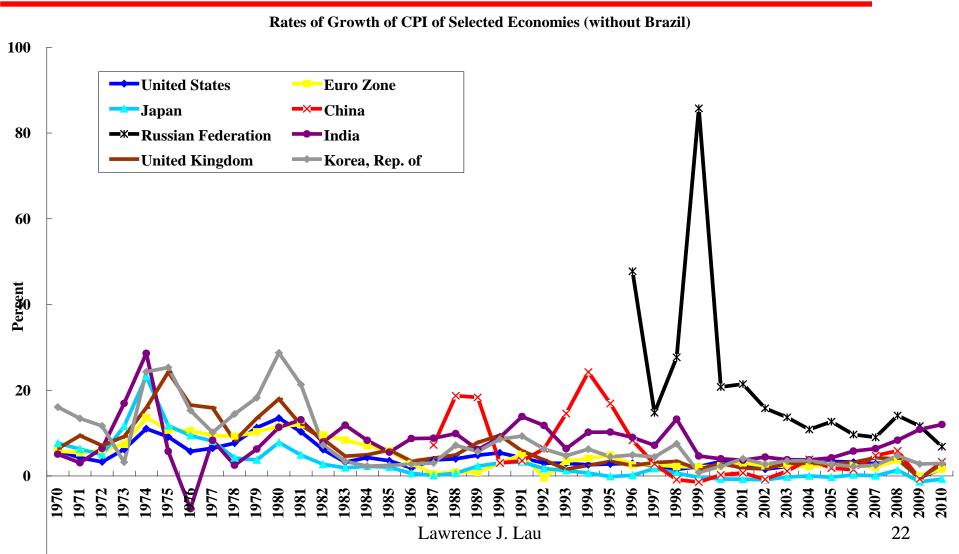
Monthly Rates of U.S. Unemployment, seasonally adjusted



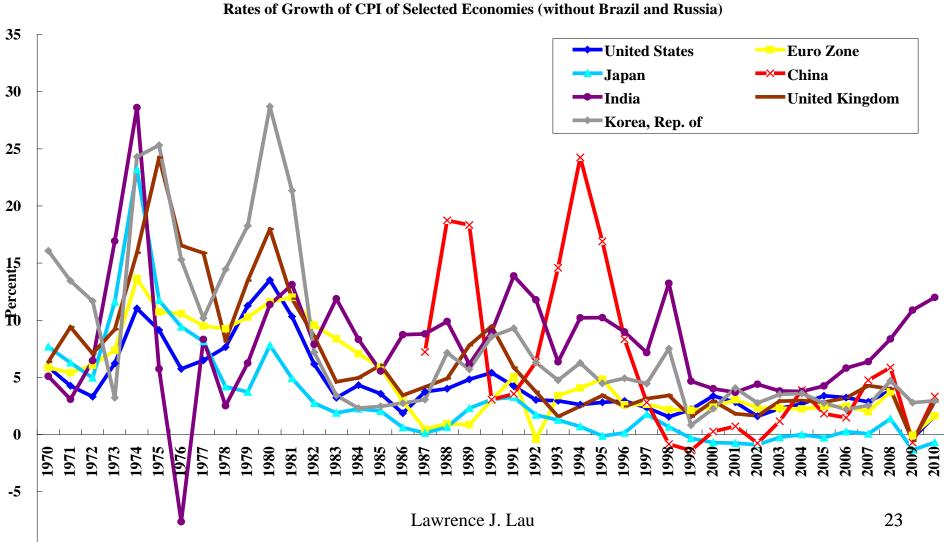
The Rate of Inflation in Selected Economies



The Rate of Inflation in Selected Economies (without Brazil)



The Rate of Inflation in Selected Economies (without Brazil and Russia)

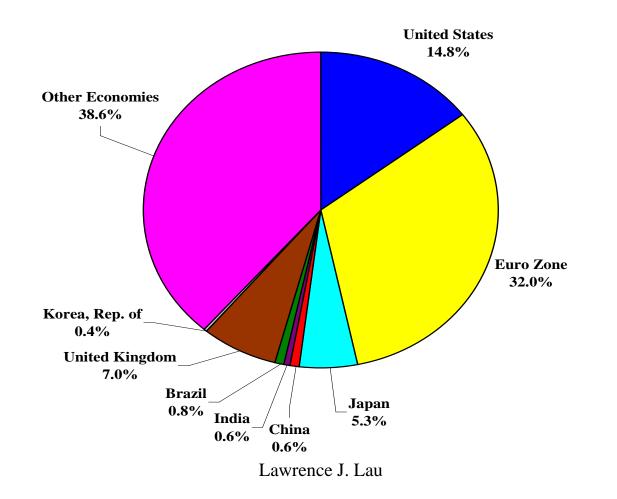


The Distribution of World Trade

- In 1970, the United States accounted for 14.8% of World trade whereas China only constituted 0.6%.
- By 2010, the United States constituted 11.3% of World trade whereas China constituted 8.8%.
- For large economies, international trade tends to be a relatively small percentage of GDP.
- The East Asian share of World trade is now just above a quarter.
- More than half of the East Asian international trade is between East Asian countries.

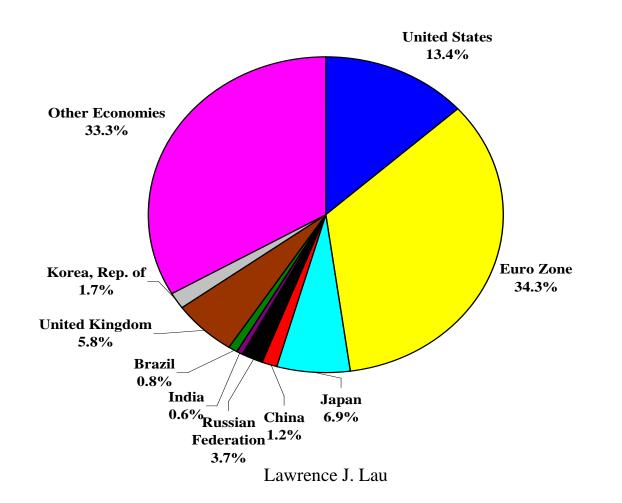
The Distribution of Total International Trade in Goods and Services, 1970

The Distribution of Total International Trade in Goods and Services in 1970



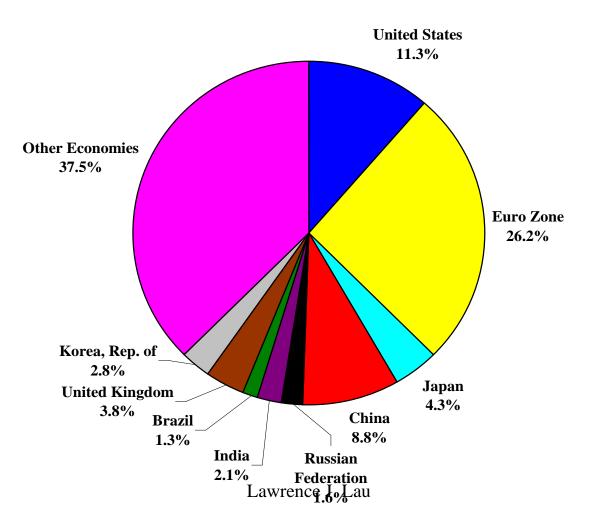
The Distribution of Total International Trade in Goods and Services, 1990

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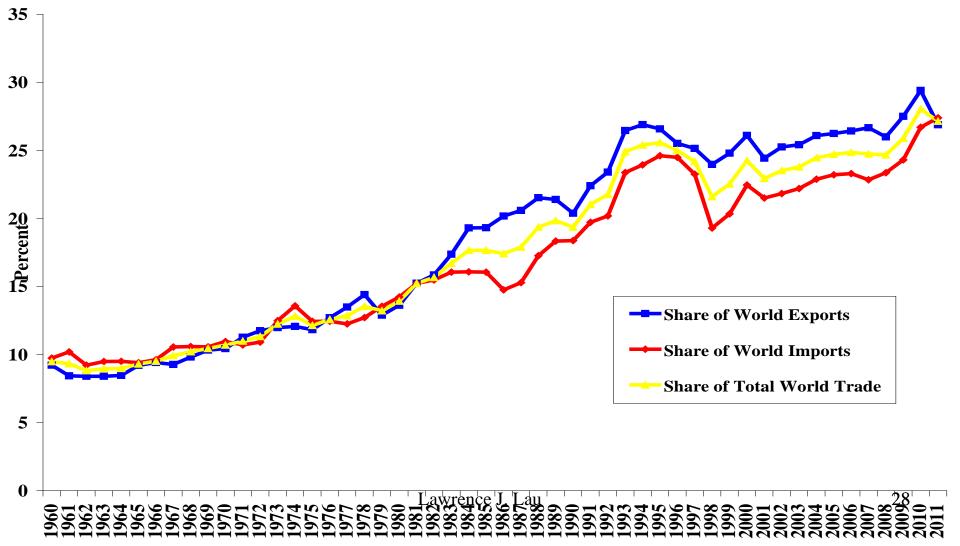
The Distribution of Total International Trade in Goods and Services, 2010

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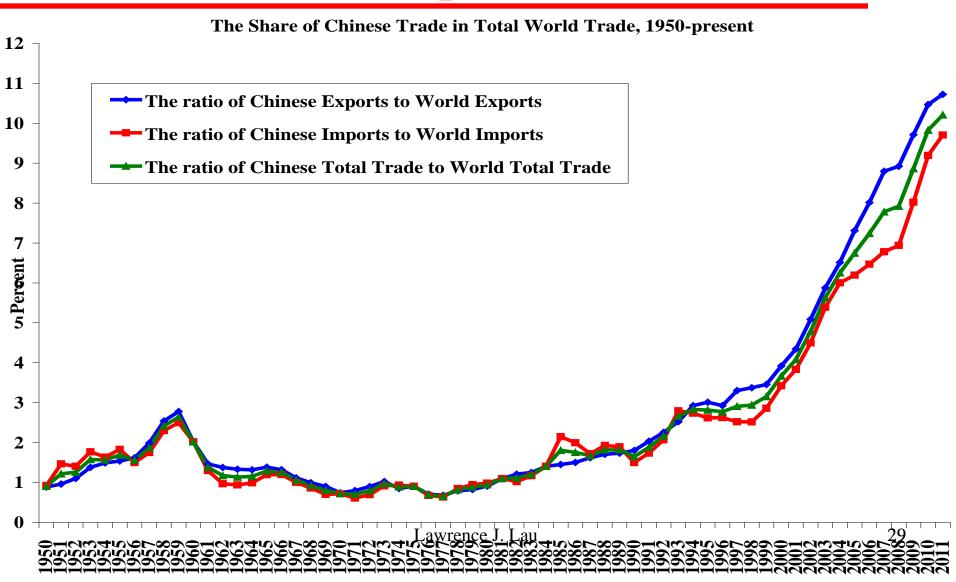


The Rising Share of East Asian Trade in Total World Trade, 1960-present

The Rising Share of East Asian Trade in Total World Trade, 1960-present



The Share of Chinese Trade in Total World Trade, 1950-present



The Share of Chinese Trade in Total East Asian Trade, 1952-present

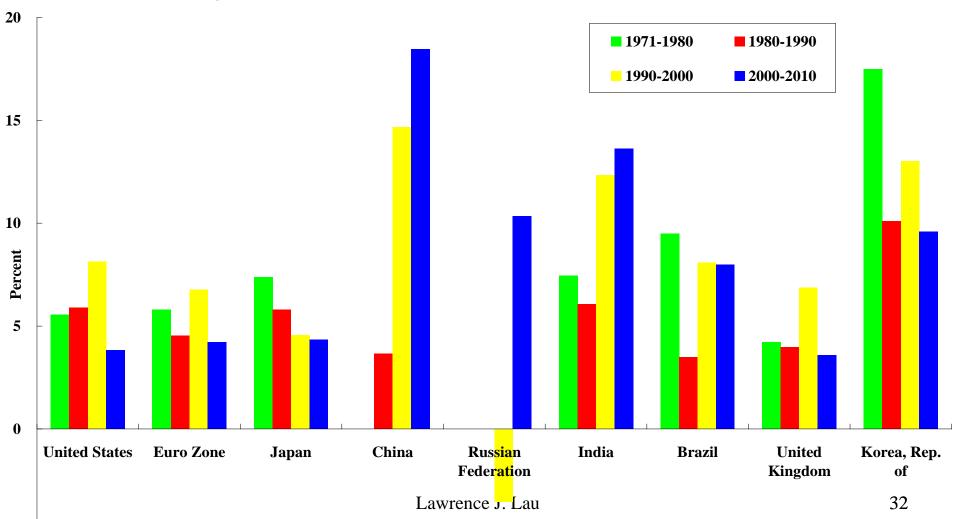
TheShare of Chinese Trade in Total East Asian Trade, 1952-present **45** The Ratio of Chinese Exports to East Asian Exports 40 The Ratio of Chinese Imports to East Asian Imports The Ratio of Chinese Total Trade to East Asian Total Trade 35 30 Ercent 5 15 10 5 0 Heatshinese: JUhatersity of Hong K

The Rates of Growth of International Trade

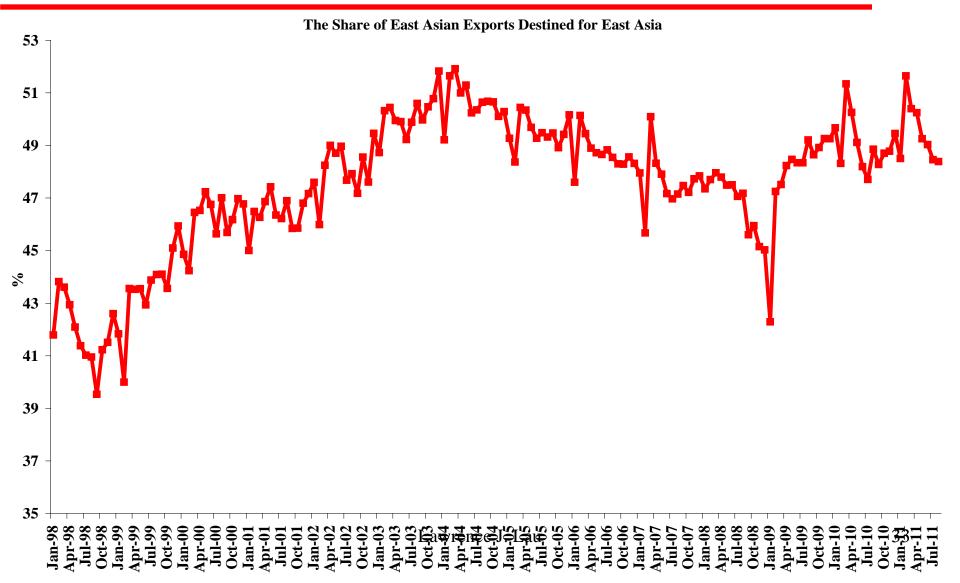
- In the developed economies, the real rates of growth of international trade have been declining.
- In contrast, in the BRIC (Brasil, Russia, India and China) countries, the real rates of growth of international trade have been rising.
- Chinese international trade grew even more rapidly after its accession to the World Trade Organisation (WTO) in 2001.

Average Annual Rate of Growth of Total International Trade in Goods and Services

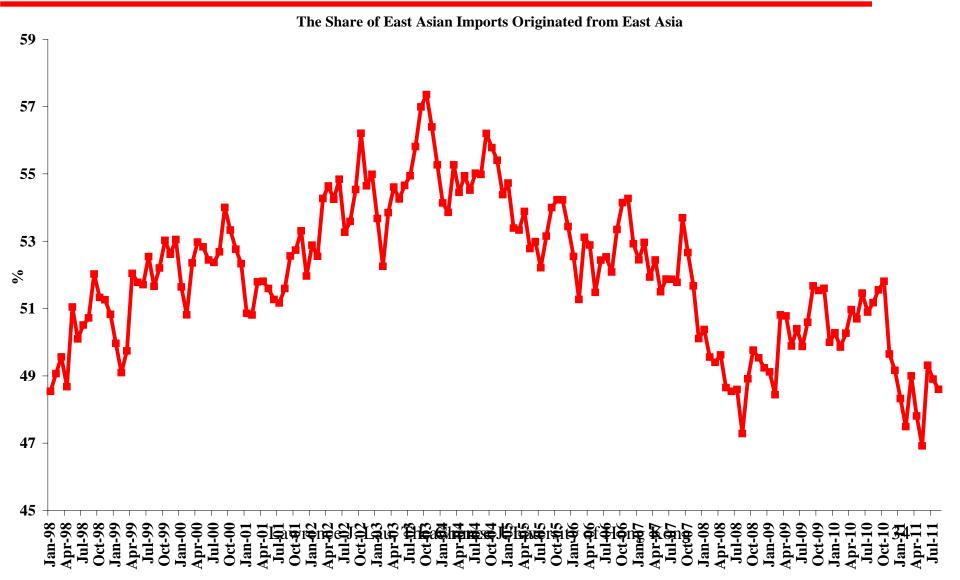
Average Annual Rates of Growth of Total Real Trade in Goods and Services, in 2000 USD



The Share of East Asian Exports Destined for East Asia



The Share of East Asian Imports Originated from East Asia



Market Capitalization of Stock Exchanges Year End 2010 (US\$)

In terms of market capitalization, the total of all East Asian stock exchanges combined, at year end 2011, is less than the total of all U.S. stock exchanges but greater than the total of all European stock exchanges. This is further evidence of the shifting of the centre of economic gravity of the World.

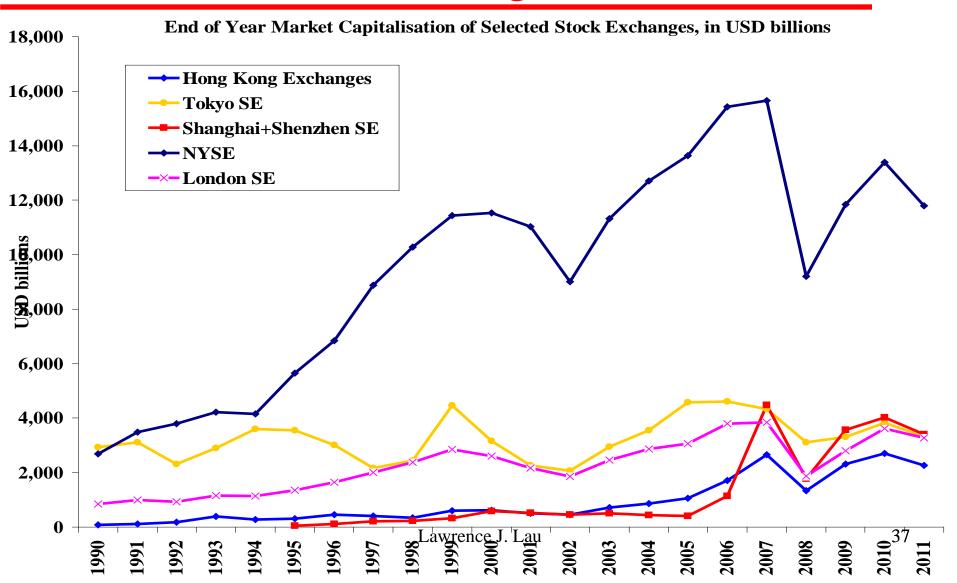
Market Capitalization of Stock Exchanges Year End 2010 and 2011 (US\$ trillion)

•	2010	2011
♦ U.S.A.	17.3	15.6
♦ Europe	10.9	9.5
East Asia	14.3	12.4

Exchanges:

- ♦ U.S.A.: NASDAQ and NYSE
- Europe: Athens Exchange, BME Spanish Exchanges, Budapest SE, Cyprus SE, Deutsche Borse, Irish SE, London SE group, Luxembourg SE, NYSE Euronext (Europe), Oslo Bors, SIX Swiss Exchange
- East Asia: Bursa Malaysia, Hong Kong Exchanges, Indonesia SE, Korea Exchange, Philippine SE, Shanghai SE, Shenzhen SE, Singapore Exchange, Taiwan SE, Thailand SE, Tokyo SE Group Data source: World Federation of Exchanges

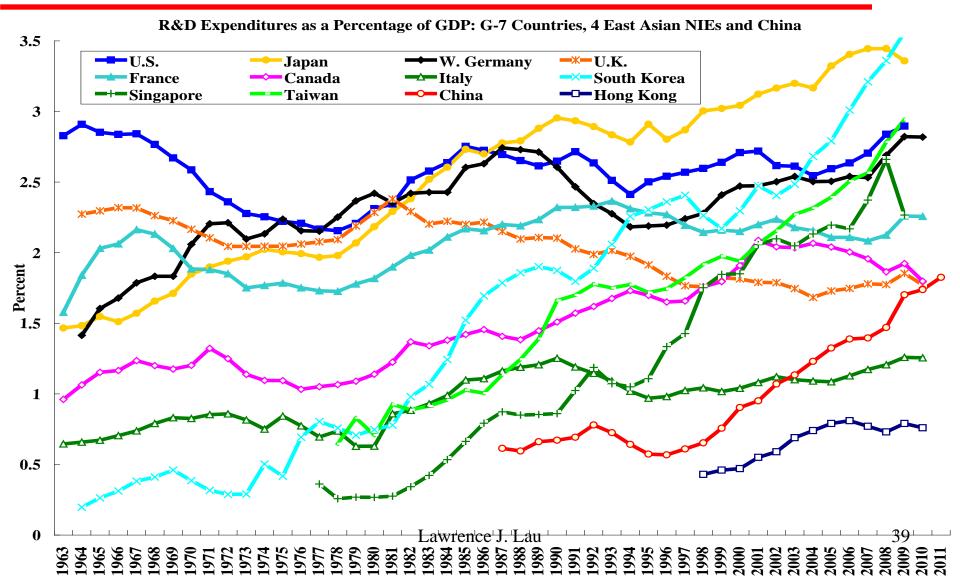
End of Year Market Capitalisation of Selected Stock Exchanges



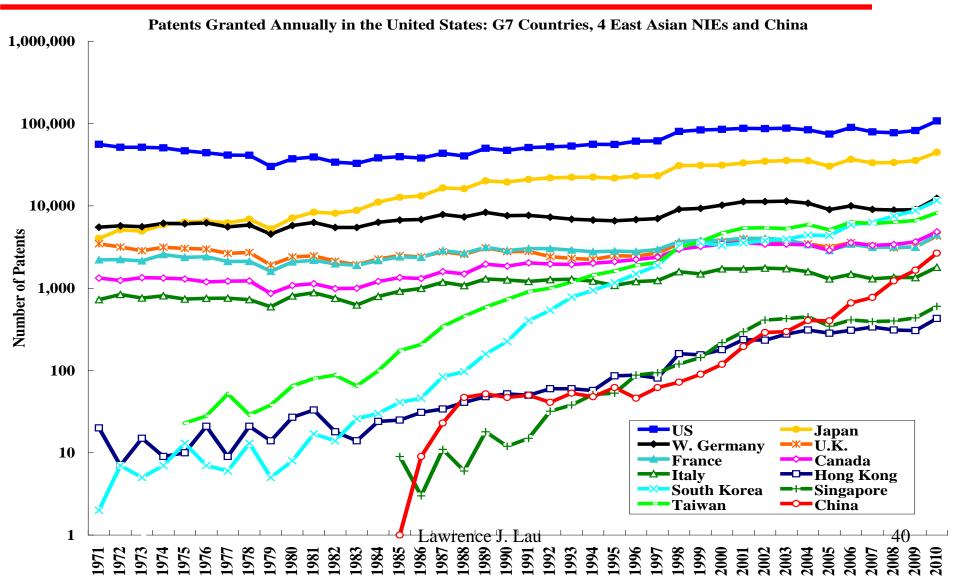
Technology and R&D

- In terms of technology and R&D investment, the U.S. is still the undisputed leader of the World with the largest number of patents granted in the U.S. as well as the largest stock of R&D capital.
- There is a direct relationship between the number of patents granted to the nationals of a given country and the level of its R&D capital stock.

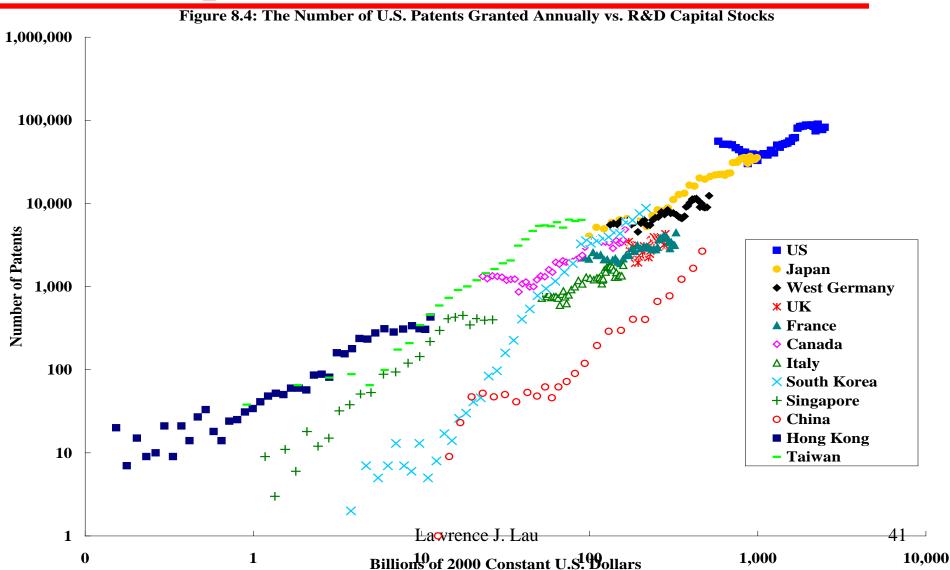
R&D Expenditures as a Ratio of GDP: G-7 Countries, 4 East Asian NIES & China



Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs & China



Patents Granted in the United States and R&D Capital Stocks, Selected Economies

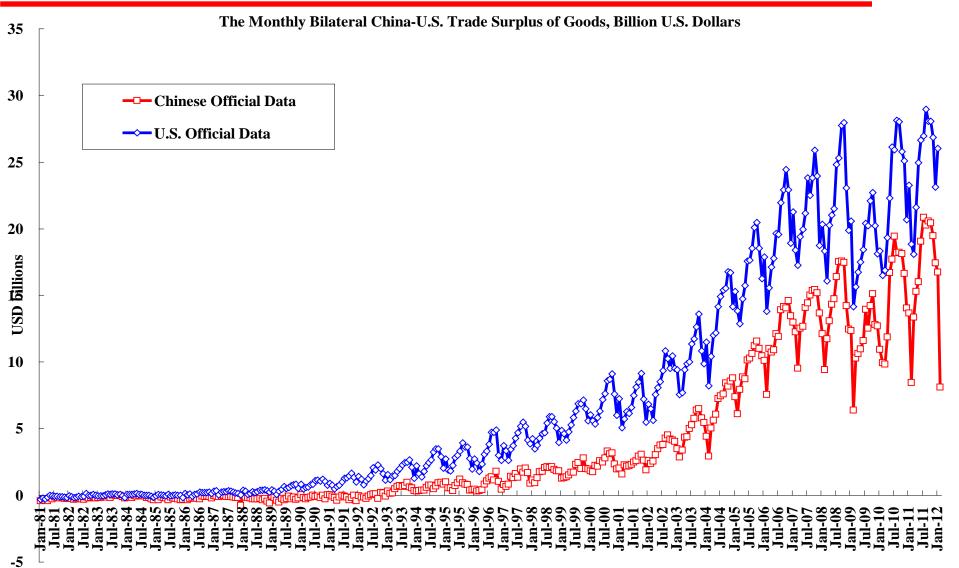


- First, we consider the question of whether the Renminbi is under-valued. An under-valued currency is desirable because at some point it will become fully valued and holders of the currency will be able to realise a substantial gain.
- The currency of a country is considered under-valued if the country runs persistent surpluses in trade in goods and services combined <u>vis-à-vis the entire World</u>. It is considered over-valued if it runs persistent trade deficits vis-à-vis the World.

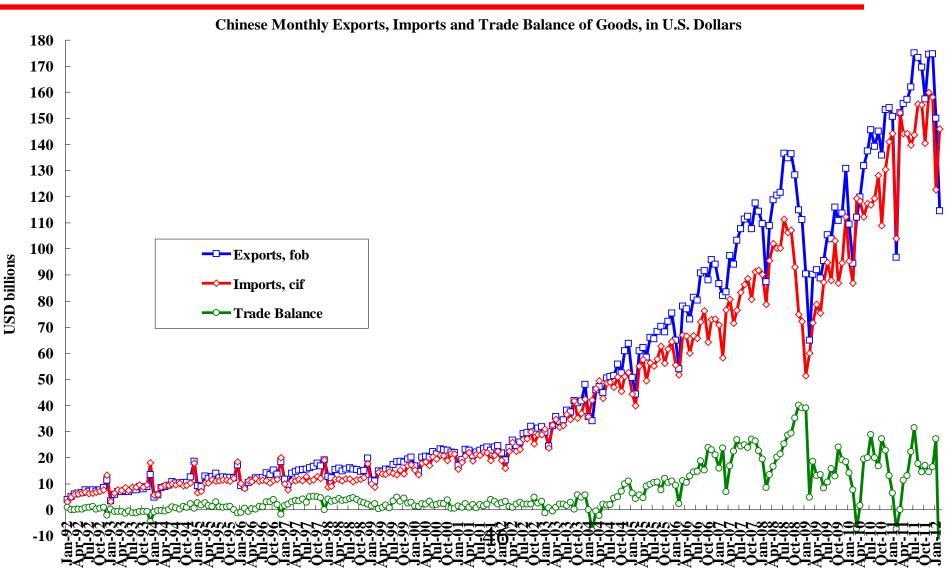
A bilateral trade surplus, even a persistent one, says nothing about whether a country's currency is under-valued because it may still have a near zero or even negative trade balance vis-à-vis the entire World. Most oil-importing countries have persistent bilateral trade deficits with oil-exporting countries. And that does not necessarily mean the currencies of the oil-importing countries are over-valued relative to the respective oil-exporting countries.

- During the past two decades, China has run persistent significant trade surpluses vis-à-vis the United States. (The Chinese official data and the U.S. official data differ because the U.S. data includes as Chinese exports Chinese re-exports through Hong Kong, but the trends are similar.)
- However, with the World as a whole, China has had essentially balanced trade in goods and services except for the period since 2005 (see the following Charts). Thus, if there were any under-valuation of the Renminbi, it would have to be during this period since 2005 and not before.
- The Chinese trade surplus vis-à-vis the World reached a peak in 2008 when it began to decline. In 2009, it fell almost 35 percent, and became once again relatively insignificant beginning in 2010. In 2011, the Chinese trade surplus as a percent of GDP has continued its decline ended the year at approximately 2%.
 - Thus, China has not had a persistent significant trade surplus.

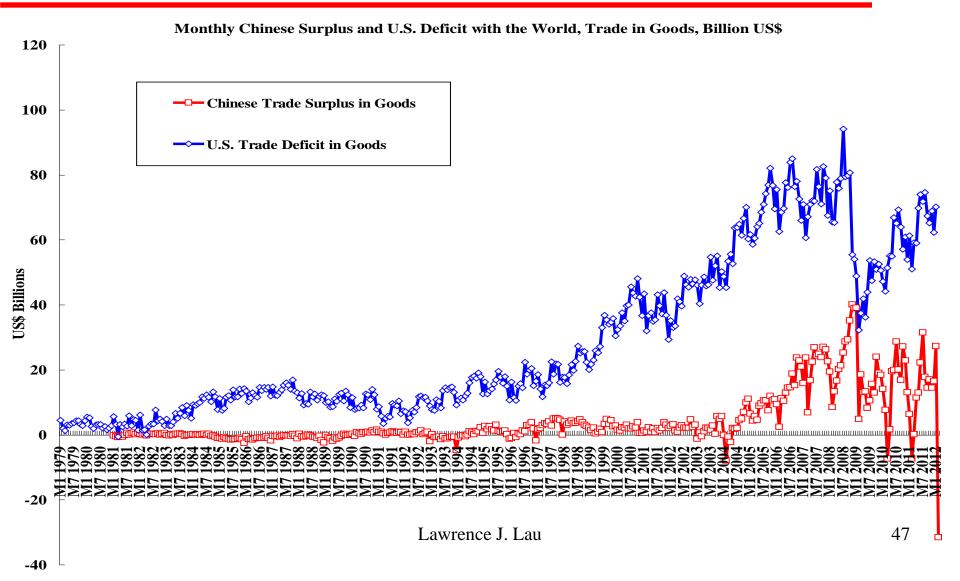
The Monthly Bilateral China-U.S. Trade Surplus of Goods, Billion U.S. Dollars



Chinese Monthly Exports, Imports and Trade Balance, US\$

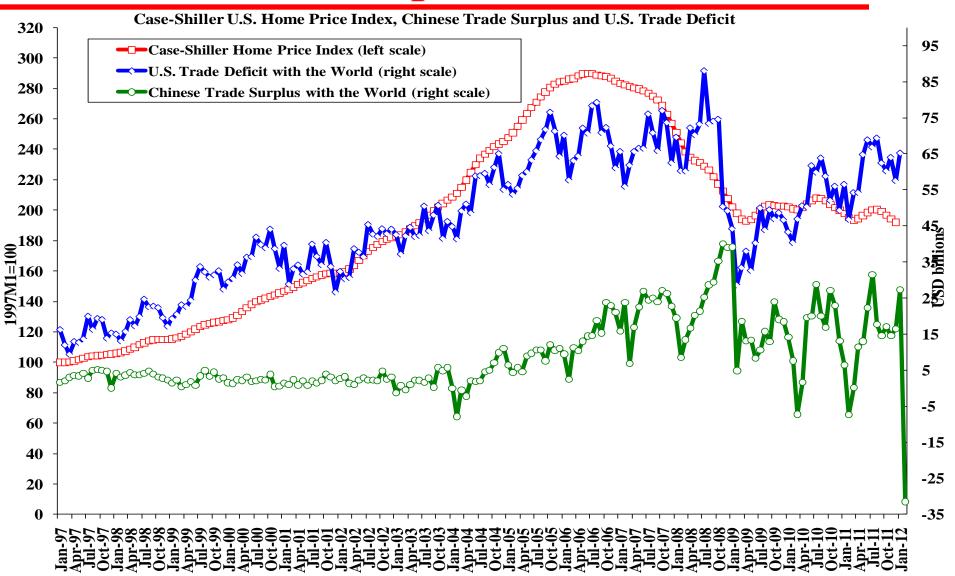


Monthly Chinese Surplus and U.S. Deficit with the World, Trade in Goods, Bill. US\$



- The statistics on Chinese trade balances over the past three decades indicate that China has had essentially balanced trade in goods and services combined with the World until 2005. Its trade surplus vis-àvis the World began to rise in 2005, reaching a peak in 2008, and then began to decline rather precipitously, partly in response to the global financial crisis.
- In contrast, the large U.S. trade deficit with the World existed since at least 1998, long before 2005, when China began to have a significant trade surplus with the World. What this means is that while there is evidence that the U.S. Dollar might have been and continues to be over-valued, there is no evidence that the Renminbi was under-valued prior to 2005.

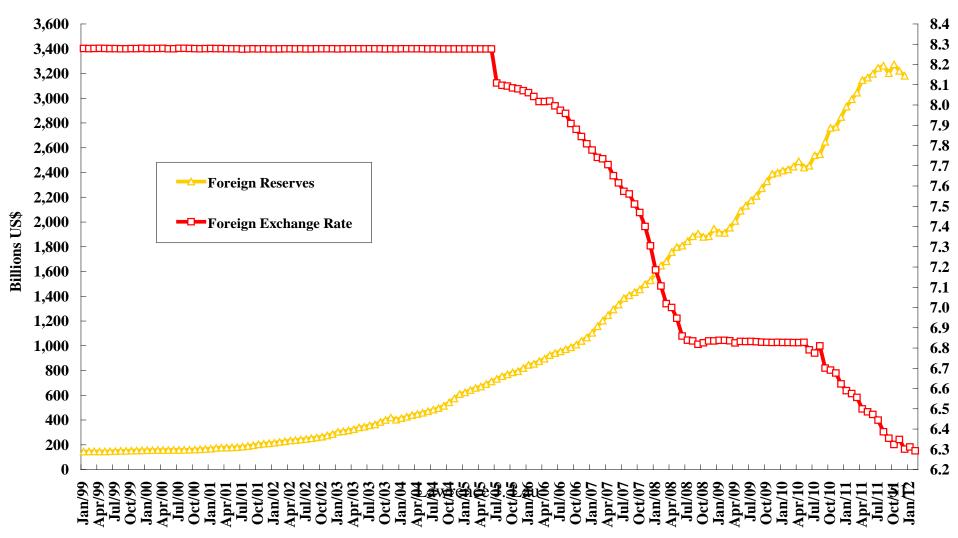
Case-Shiller US Home Price Index, Chinese Trade Surplus & US Trade Deficit



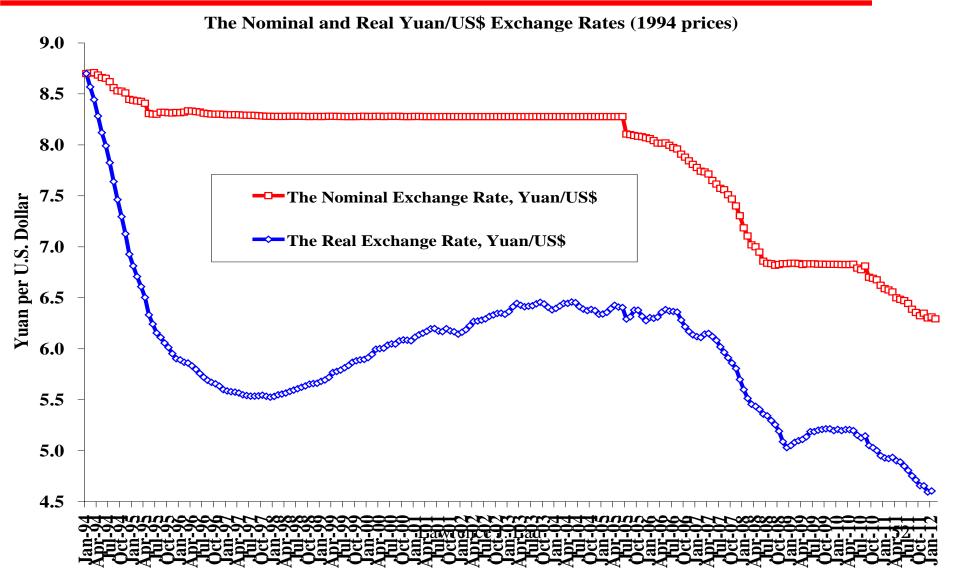
- In July 2005, the Renminbi was allowed to appreciate and rose 24% in nominal terms and 27% in real terms by the end of 2011.
- The Chinese trade surplus is expected to continue to decline until it returns to an essentially balanced situation as was the case before 2005.
- The long-term goal of the Chinese Government is to reduce the Chinese trade surplus vis-à-vis the World to zero. If the current trend continues, the goal of zero annual trade balance can probably be achieved by 2012 or 2013, without necessarily any large adjustment in the nominal Yuan/U.S. Dollar exchangeerateau

Chinese Foreign Exchange Reserves and the Yuan/US\$ Exchange Rate

Chinese Foreign Exchange Reserves and the Yuan/US\$ Exchange Rate at the End of the Month

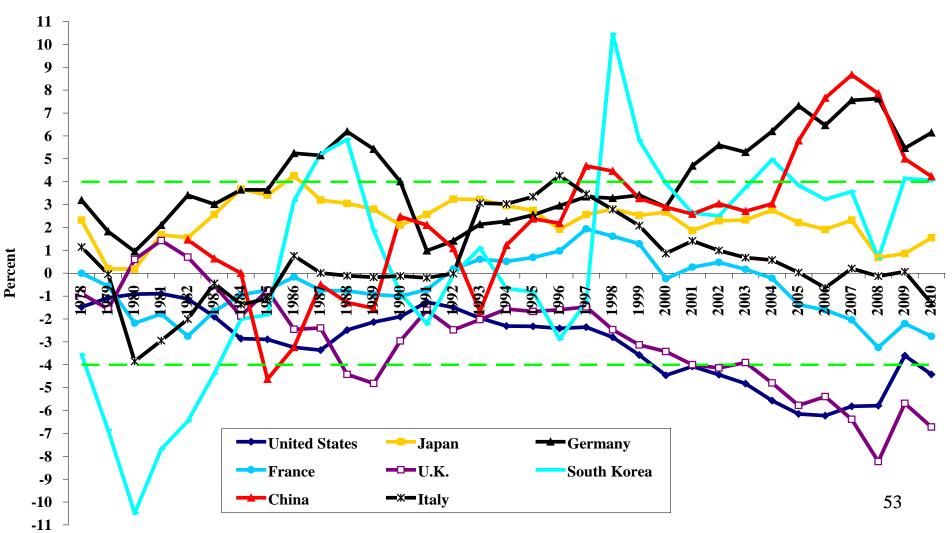


The Nominal and Real Yuan/US\$ Exchange Rates



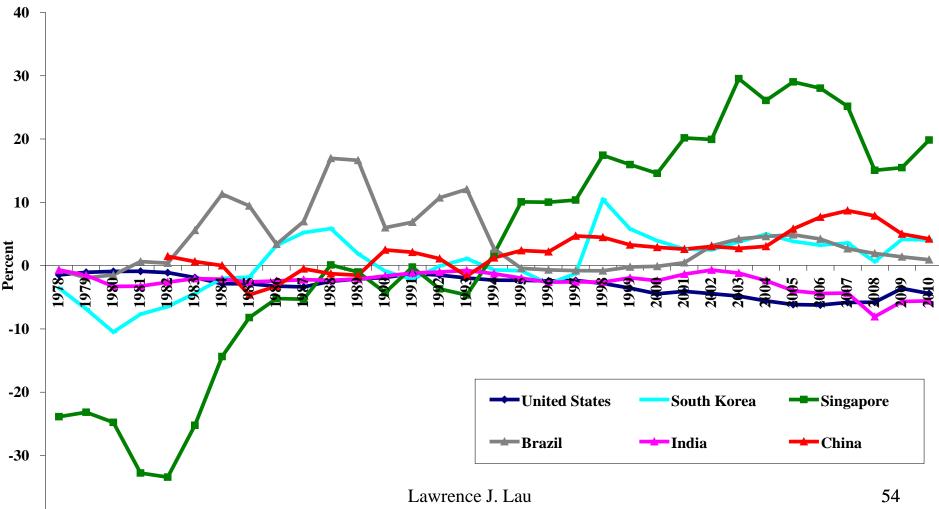
Trade Surplus (Deficit) as Percent of GDP, Selected Developed Economies & China

Trade Surplus (Deficit) as a Percent of GDP of Selected Developed Economies & China

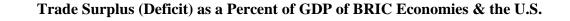


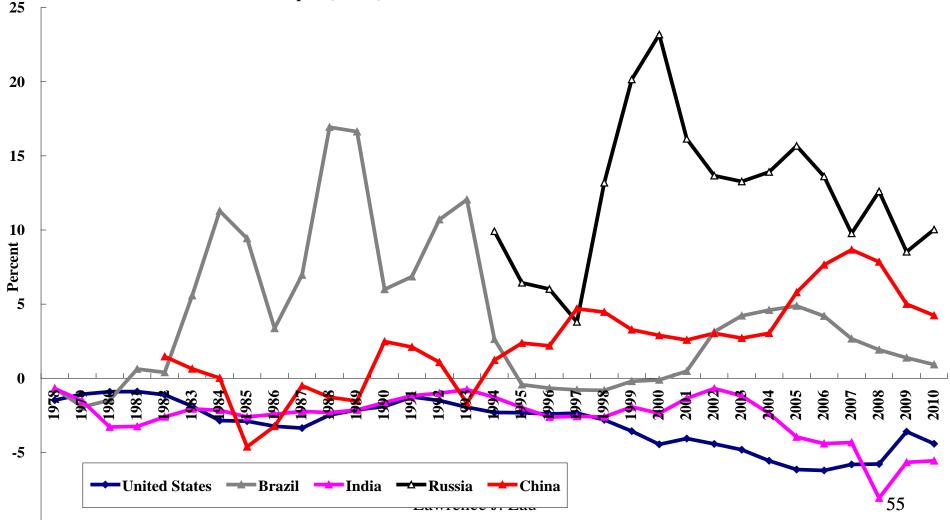
Trade Surplus (Deficit) as Percent of GDP, Selected Developing Economies & U.S.A.

Trade Surplus (Deficit) as a Percent of GDP of Selected Developing Economies & U.S.A.



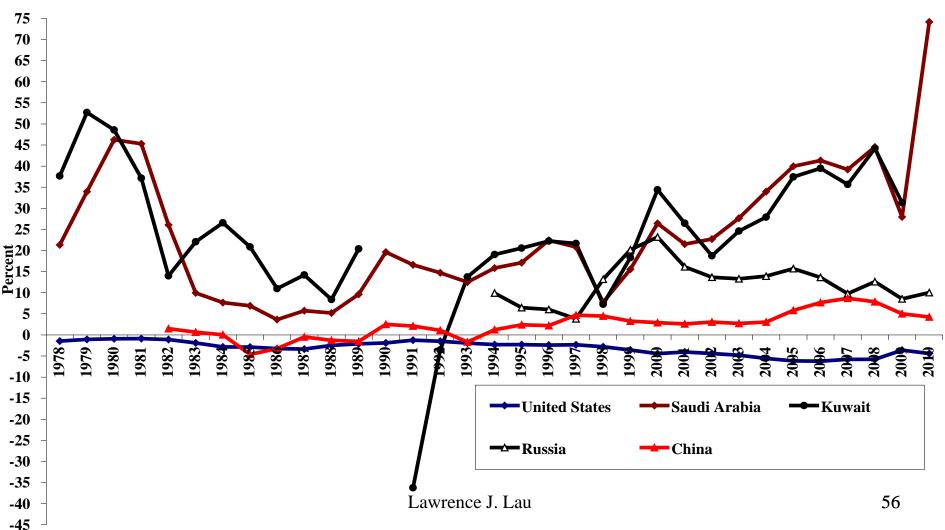
Trade Surplus (Deficit) as Percent of GDP, BRIC Economies and the U.S.





Trade Surplus (Deficit) as Percent of GDP, Oil-Exporting Economies, China and U.S.

Trade Surplus (Deficit) as a Percent of GDP of Oil-Exporting Economies, China and U.S.



- What do we mean by "Internationalisation of the Renminbi"? It can mean many different things:
 The Renminbi is used as a "unit of account" in international transactions e.g. trade between Main
 - international transactions, e.g., trade between Mainland China and Hong Kong, which may be denominated in Yuan.
- The Renminbi is used as a "settlement" currency in international (trade and capital) transactions. (Just because a transaction is denominated in a certain currency does not necessarily imply that the transaction must be settled in that same currency.)

- The Renminbi is used as a medium of exchange outside of Mainland China, sometimes as an alternative to the local currency of legal tender (e.g., Hong Kong, Macau, Laos).
- The Renminbi is used as a store of value outside of Mainland China (e.g., Hong Kong).
- The Renminbi and Renminbi-denominated assets are held by foreign central banks as a reserve currency (e.g., Japan, Nigeria and the central banks of countries with swap agreements with the People's Bank of China).
- The Renminbi is fully and freely convertible, that is, both "current accounts" convertible and "capital accounts" convertible—all inbound and outbound capital controls are lifted. Lawrence J. Lau 58

The Renminbi has been current accounts convertible since 1994. However, it has not yet become fully capital accounts convertible. There still exist both inbound and outbound capital controls in China. Some categories of capital movements require prior government approval. But individual Chinese citizens can remit up to US\$50,000 per person overseas each year, with few questions asked.
 In Hong Kong, residents can convert HK\$ into Renminbi or vice versa up to 20,000 Yuan per individual bank

account per business day.

 More recently, enterprises in Hong Kong are also permitted to establish Renminbi bank accounts which can be used to make and receive payments in Renminbi.

- International trade and other international transactions are normally denominated and settled in a limited number of currencies principally because the citizens of most countries do not wish to accept or hold the currencies of other countries than the few recognised as international "reserve" currencies (e.g., US\$, Euro, Japanese Yen, Swiss Franc, British Pound). (Gold is possibly an exception.)
- For example, two countries may wish to trade with each other, but neither has confidence in the currency of the other, so that unless the bilateral trade is completely balanced and a straight barter is possible, they will need to use the currency of a third country which both of them trust and are willing to accept and hold. This currency often turns out to be the US\$. Without U.S. Dollars, trade between them might not have taken place.⁶⁰

Most of the international trade, investment and loan transactions of the World today are denominated and settled in U.S. Dollars (except for transactions occurring within the same common-currency areas). The U.S. Dollar is widely used, insofar as international economic activities are concerned, as a unit of account, a medium of exchange, and a store of value.

• Thus, the U.S. Dollar provides a genuinely useful service to the World as a widely accepted international medium of exchange and a store of value. For providing this international liquidity, the U.S. is also rewarded with seigneurage, that is, the ability to mint (print) money (and bonds) and use them to purchase real goods and services around the World, just as the central bank of a country that issues domestic money is rewarded with seigneurage domestically. In other words, the U.S. has the privilege of exchanging real goods and services from other countries with pieces of paper.

- The World economy has been depending on the United States to supply the international liquidity (international money supply) to support international transactions in trade and investment and for any other purposes. The international transactions balances used by most economies consist of U.S. dollars held as foreign exchange reserves in their respective central banks, which in turn have mostly been earned through trade surpluses with the United States and other economies.
- The rapid growth of international trade and investment during the past two decades has significantly increased the demand for international liquidity. However, the United States may no longer be willing or able or both to continue to supply the international liquidity post the global financial crisis. For example, it may start running a trade surplus instead of a deficit and therefore reducing the outflow of U.S. Dollars to the rest of the World.
- The U.S. Dollar, because of the various weaknesses of its economy, is also under pressure to devalue and has been devaluing vis-a-vis₆₃ other currencies during the past year.

- More recently, however, whether the U.S. is able to continue to fulfill the role of the principal provider of international liquidity has come into question for two major reasons.
- First, the potential supply of U.S. Dollars for international transactions purposes depends on the rate of outflow of U.S. Dollars from the U.S., which in turn depends in part on the U.S. running significant trade deficits. However, the United States may no longer be willing or able (or both) to run a large trade deficit post the global financial crisis. To the extent that the U.S. begins to run a smaller trade deficit, or even a trade surplus, the rate of increase of U.S. Dollar balances held by the rest of the World will decline and perhaps even turn negative, other things being equal. (Of course it also depends in part on how fast the U.S. Federal Reserve Board increases the U.S. money supply.)

• Second, the willingness and the need of the rest of the World to continue to accumulate and to hold U.S. Dollar balances has also begun to decline. The willingness has declined because of a not so optimistic outlook for the U.S. economy, especially on the fiscal side, and the expectation of a significant devaluation of the U.S. Dollar in the medium to long term. (Of course, if the U.S. Dollar balances could be inflation-protected long-term, it would be a different matter.) The need has also declined because of the possibility of denominating and settling international transactions in other currencies, including the own currencies of the trading partner-countries. 65

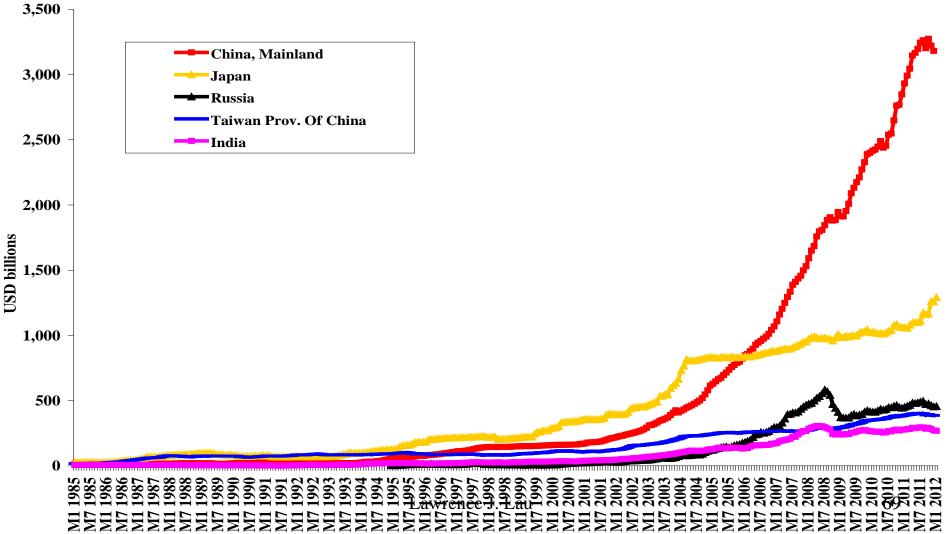
- Moreover, since 1971, exchange rates of currencies are no longer fixed relative to one another but fluctuate daily. It is, however, not clear that this "market system of exchange rate determination" has been effective in the reduction of persistent trade surpluses and deficits, especially when compared to the Bretton-Woods system.
- The exchange rates themselves have in the meantime become excessively volatile and unpredictable, driven by short-term speculative capital flows. The uncertainty of relative exchange rates has become a deterrent to the growth of international trade and long-term cross-border investment, both direct and portfolio.

Thus, it may have become necessary for the trading countries of the World to devise alternative mechanisms for the denomination and settlement of international transactions other than the use of major international reserve currencies such as the U.S. Dollar. Moreover, there may also be a need to consider new arrangements for individual economies to adjust to persistent trade imbalances, both positive and negative.

- The critical questions are:
- ◆ Is the current (U.S. Dollar-centric) international monetary system sustainable?
- (1) Will the supply of international liquidity continue to be adequate without the U.S. continuing to export U.S. Dollars?
- (2) Will central banks around the World be willing to continue to hold a large proportion of their foreign exchange reserves in a currency that is expected to devalue over time?
- \bullet (3) Are there viable alternatives to the use of the U.S. Dollar as an international medium of exchange and store of value? Lawrence I Lau 68

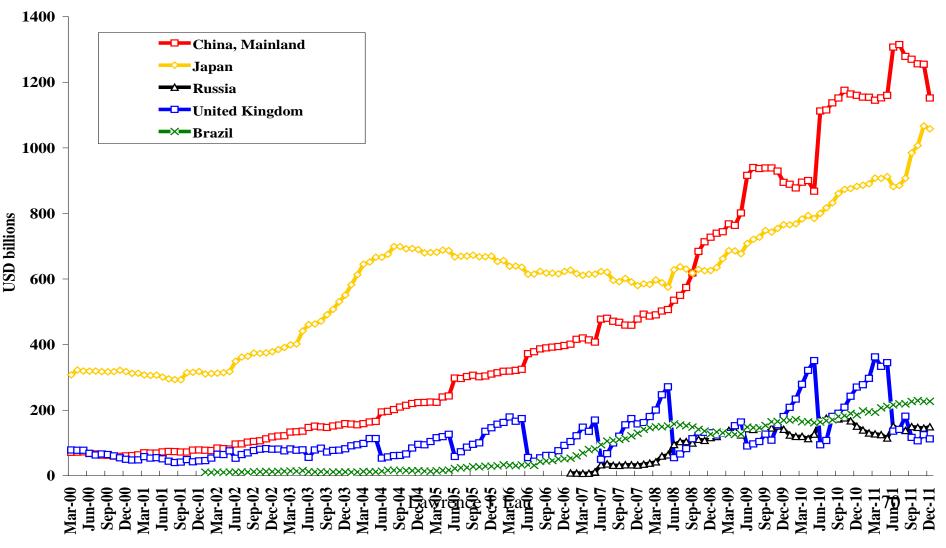
Total Foreign Exchange Reserves minus Gold, Selected Countries and Regions

Total Reserves minus Gold of Selected Countries and Regions

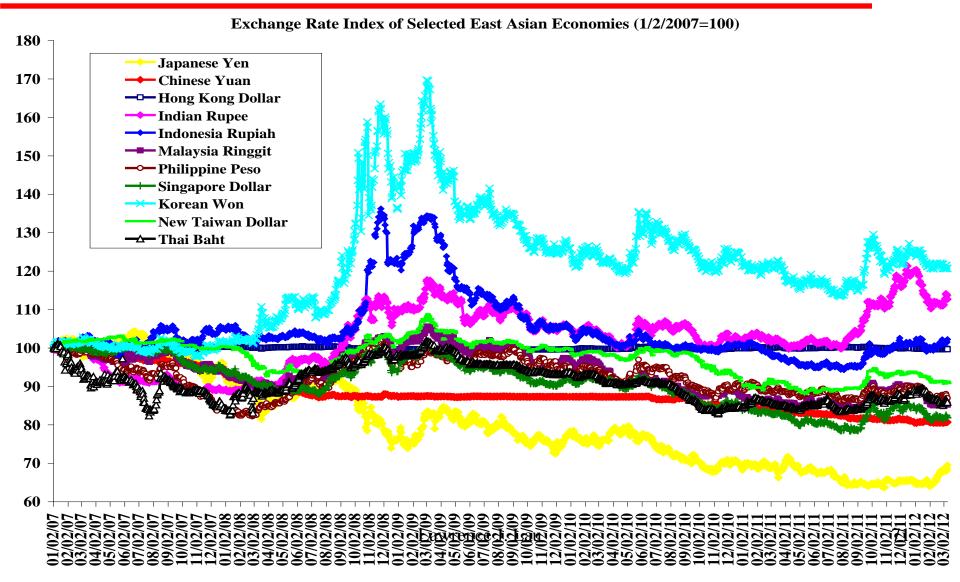


Major Foreign Central Banks' Holdings of U.S. Treasury Securities

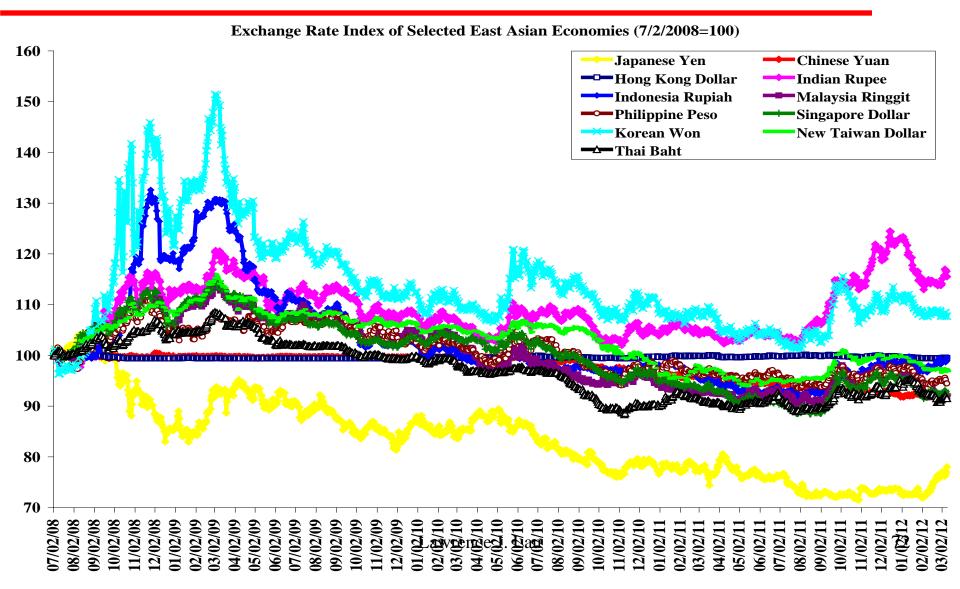
Major Foreign Central Bank's Holders of U.S. Treasury Securities



Exchange Rates of Selected East Asian Economies (1/2/2007=100)



Exchange Rates of Selected East Asian Economies (7/2/2008=100)



The Renminbi as a Settlement Currency

- If the Renminbi were to be used as a settlement currency by Chinese exporters and importers with their trading partners in East Asia, it would greatly reduce the Chinese demand for U.S. Dollars for international transactions purposes, and the People's Bank of China, China's Central Bank, would no longer need to hold as much foreign exchange reserves for transactions purposes as it does now.
- Approximately 35% of Chinese trade is conducted with East Asian economies. What this means is that the foreign exchange reserves maintained for the settlement of imports from East Asian economies can be reduced if the settlement currency is going to be the Renminbi itself.
- Chinese exports to East Asia except Japan amount to more than US\$300 billion a year. Similarly, Chinese imports from East Asia except Japan also amount to US\$300 billion a year. If imports can be settled in Renminbi, the requirement of foreign exchange reserves for transaction purposes can be substantially reduced.

The Renminbi as a Settlement Currency

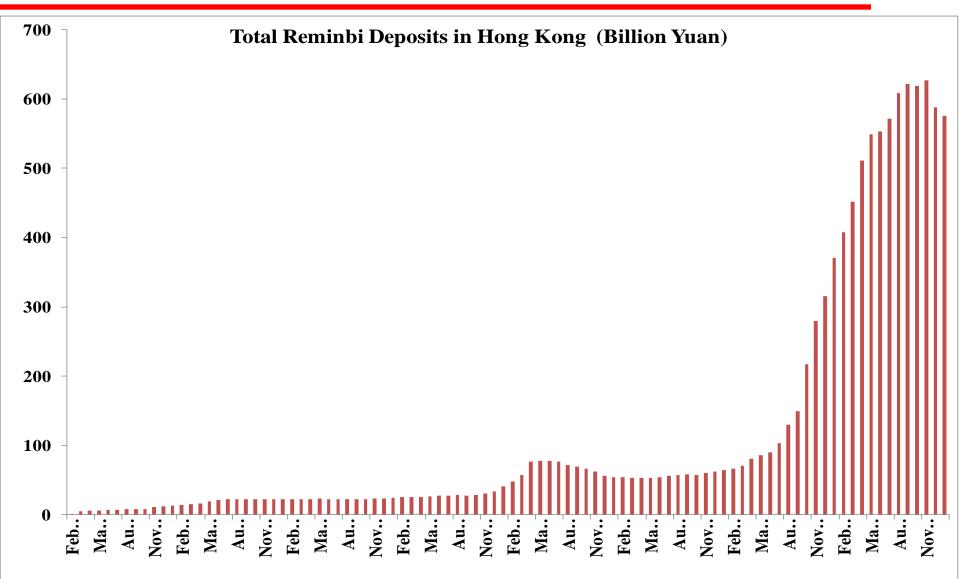
 Moreover, if other East Asian economies, such as Hong Kong, Indonesia, South Korea, Malaysia and Thailand also use the Renminbi as their settlement currency for trade amongst themselves, it would further reduce the demand for U.S. Dollars for international transactions purposes and hence the proportion of the foreign exchange reserves that the central banks of these economies hold in terms of U.S. Dollar-denominated assets. However, it may also increase demand of these central banks for Renminbi-denominated assets to be held as part of their foreign exchange reserves.

Percent of Chinese International Trade Settled in Renminbi



- The willingness to accept and to hold a non-local currency depends, but not exclusively, on whether the currency is fully convertible. A person (firm) may be quite willing to accept and to hold a non-local currency, fully convertible or not, if he (it) knows that the next person (firm) he (it) comes across is also likely to accept the currency. There can be wide general acceptance of a non-local currency even in the absence of its full convertibility.
- Even though the Renminbi is not de jure fully convertible, it has gradually become de facto convertible in many economies in East Asia because of its wide general acceptance. For example, the Renminbi is widely accepted and used in Hong Kong, Macau, Laos, Myanmar, and other border areas even though it is not legal tender in these places.

Total Renminbi Deposits in Hong Kong Billion Yuan



Full Convertibility and the Renminbi as a Reserve Currency

- While it is true that the Renminbi is not fully convertible, it may nevertheless be maintained as part of foreign exchange reserves by an economy as long as there is a credible commitment by the People's Bank of China to convert any Renminbi presented by a foreign central bank into U.S. Dollars or Euros or any other so-called "hard" currencies. Foreign central banks can hold the Renminbi for potential transactions purposes with China or other economies willing to accept the Renminbi.
- Foreign countries that hold Renminbi as part of their foreign exchange reserves include Japan and Nigeria.

Concluding Remarks

- The centre of gravity of the World economy is gradually shifting to Asia (East Asia and South Asia) from North America and Europe. The shift is still on-going. However, it will probably take another 10 years before Chinese real GDP can catch up to the level of the United States real GDP. In the meantime, the U.S. economy will still be the largest in the World. And it will probably be another 30 years from now before Chinese per capita GDP reaches the same level as that of the U.S.
- The international monetary order is in need of restructuring. There are, however, other alternatives than the use of Renminbi as another reserve currency. For example, a multilateral settlement mechanism similar to what the Bank for International Settlements did for the Western European economies in the 1950s may work within East Asia. The use of "Special Drawing Rights (SDRs)" and a return to a quasi-gold standard, perhaps within a voluntary regional group₇₉ of countries, are other possibilities.

Concluding Remarks

- Paradoxically, the global financial crisis of 2007-2009 has accelerated the pace of internationalisation of the Renminbi. China will be internationalising the Renminbi gradually and in a planned and orderly manner. It has already made a beginning by allowing the Renminbi to be used on a voluntary basis as an accounting and settlement currency in its international trade with selected countries and regions.
- In time, perhaps within the next five years, the Renminbi will become effectively fully convertible, in the sense that both inbound and outbound capital controls will be effectively lifted. However, it is possible that short-term capital flows, which are of little economic benefit to the recipient economies, may continue to be under some form of control.
- Moreover, convertibility is not equivalent to a freely floating exchange rate. For example, the Hong Kong Dollar is fully convertible but its exchange rate is pegged to the U.S. Dollar. The exchange rate is too important a price to be left to the market. China will probably continue with a "managed" floating rate system for some time to come.

Concluding Remarks

- If current trends continue, Chinese real GDP will approach the level of U.S. real GDP in approximately 11 years' time--around 2023, at which time Chinese real GDP will exceed US\$20 trillion (in 2011) prices) and Chinese real GDP per capita will exceed US\$ 14,000. • It will take another 20-25 years, until around the middle of the 21st Century, before China reaches the same level of real GDP per capita as the United States, at US\$90,000 in 2011 prices (bear in mind that in the meantime, the U.S. economy will also continue to grow, albeit at rates significantly lower than those of the Chinese economy and that the Chinese population will reach a peak around 2035 and then begin to decline slowly).
 - By that time, Chinese GDP will be approximately 4.5 times the U.S.
 GDP.