The Chinese Economy: An Overview

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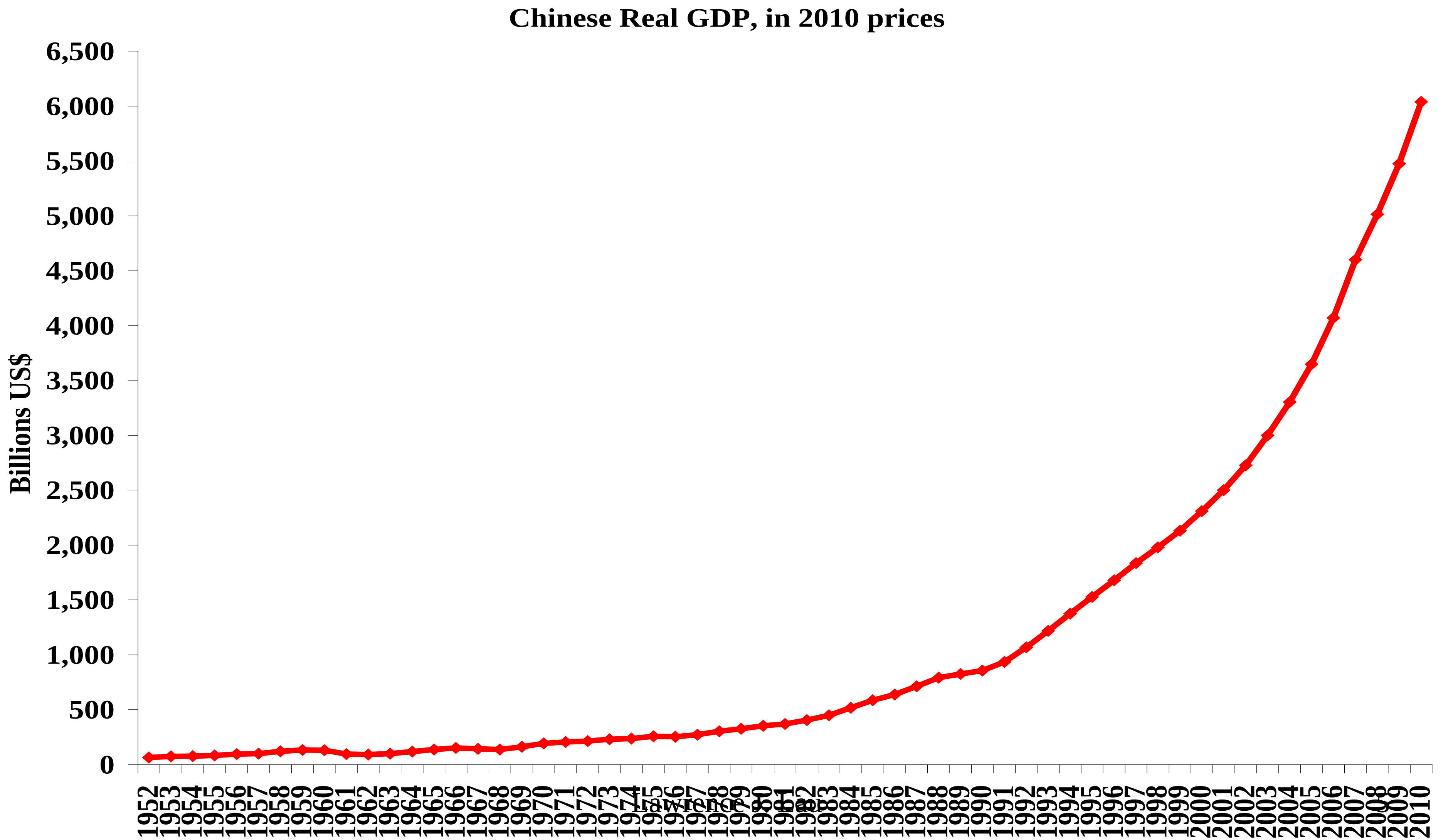
Introduction

- 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.
- China is one of the very few socialist economies that have made a smooth transition from a centrally planned to a market system. It is a model for other transition economies such as Vietnam and potential transition economies such as Cuba, Laos, and North Korea.

Introduction

- Between 1978 and 2010, Chinese annual real GDP grew more than 20 times, from US$304 billion to more than US$6.04 trillion (2010 prices) to become the second largest economy in the World, after the United States.
- By comparison, the U.S. GDP (approximately US$14.66 trillion in 2010 prices) was 2.4 times the Chinese GDP in 2010.

Chinese Real GDP in US$ Since 1952 (2010 Prices)



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China's Share of World GDP, 1960-Present, in 2010 US$

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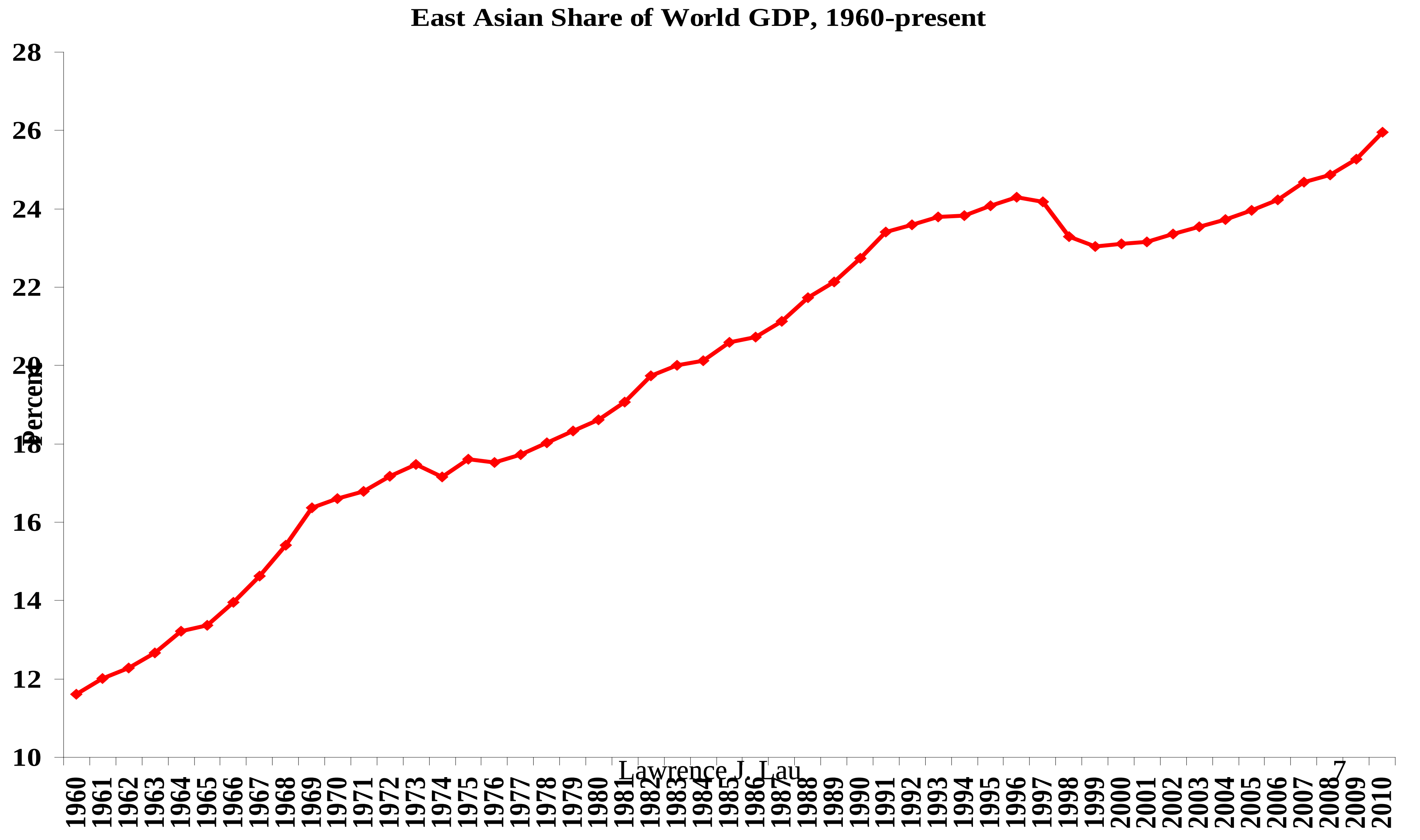
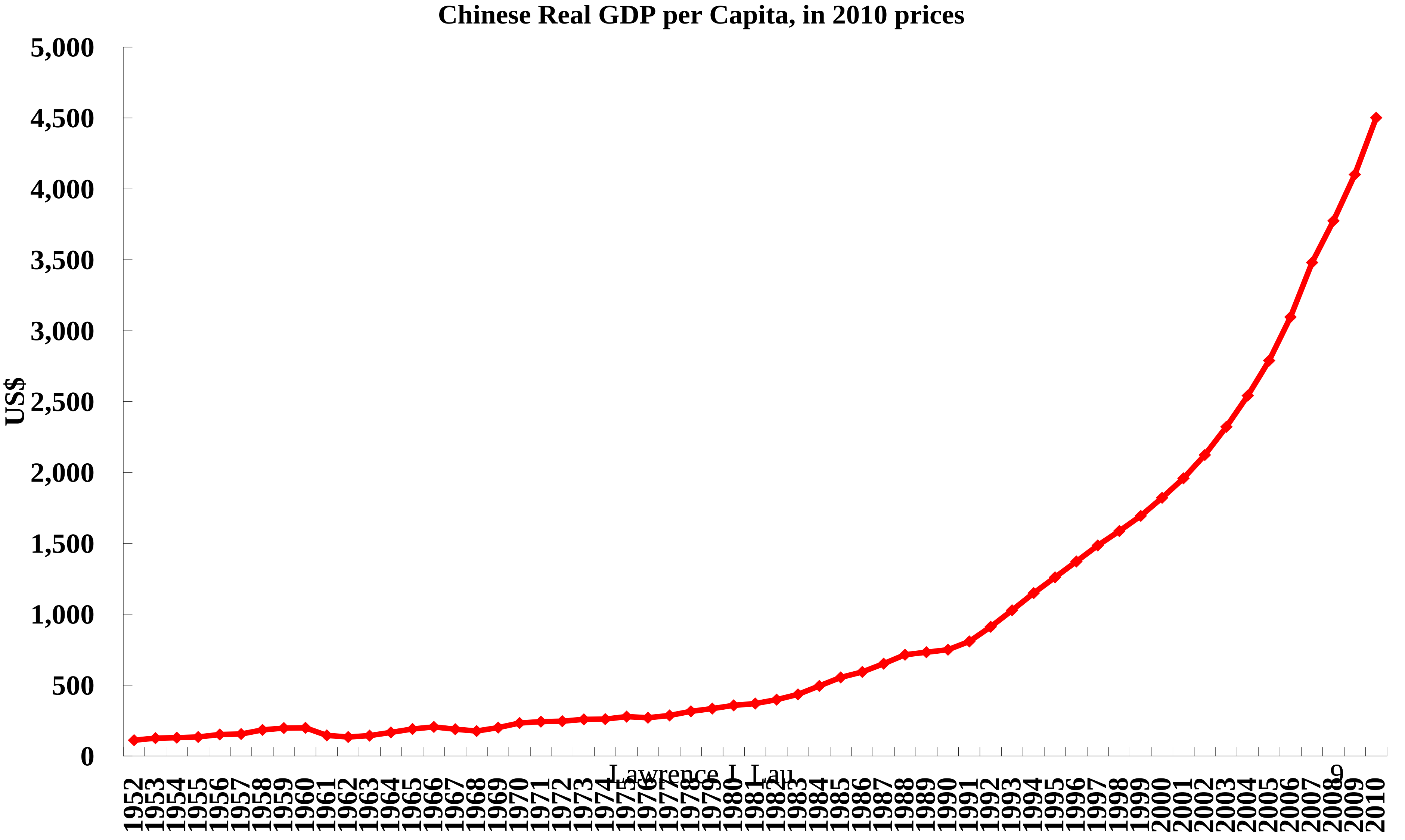
East Asian Share of World GDP, 1960-Present, in 2010 US$



Introduction

- Despite the rapid economic growth of China, in terms of real GDP per capita, it is still a developing economy.
- Between 1978 and 2010, Chinese real GDP per capita grew almost 15 times, from US$316 to US$4,503 (in 2010 prices). By comparison, the U.S. GDP per capita (approximately US$47,274 in 2010 prices) was 10.5 times Chinese GDP per capita in 2010.
- Chinese GDP per capita ranks below 90th among all economies in the World.

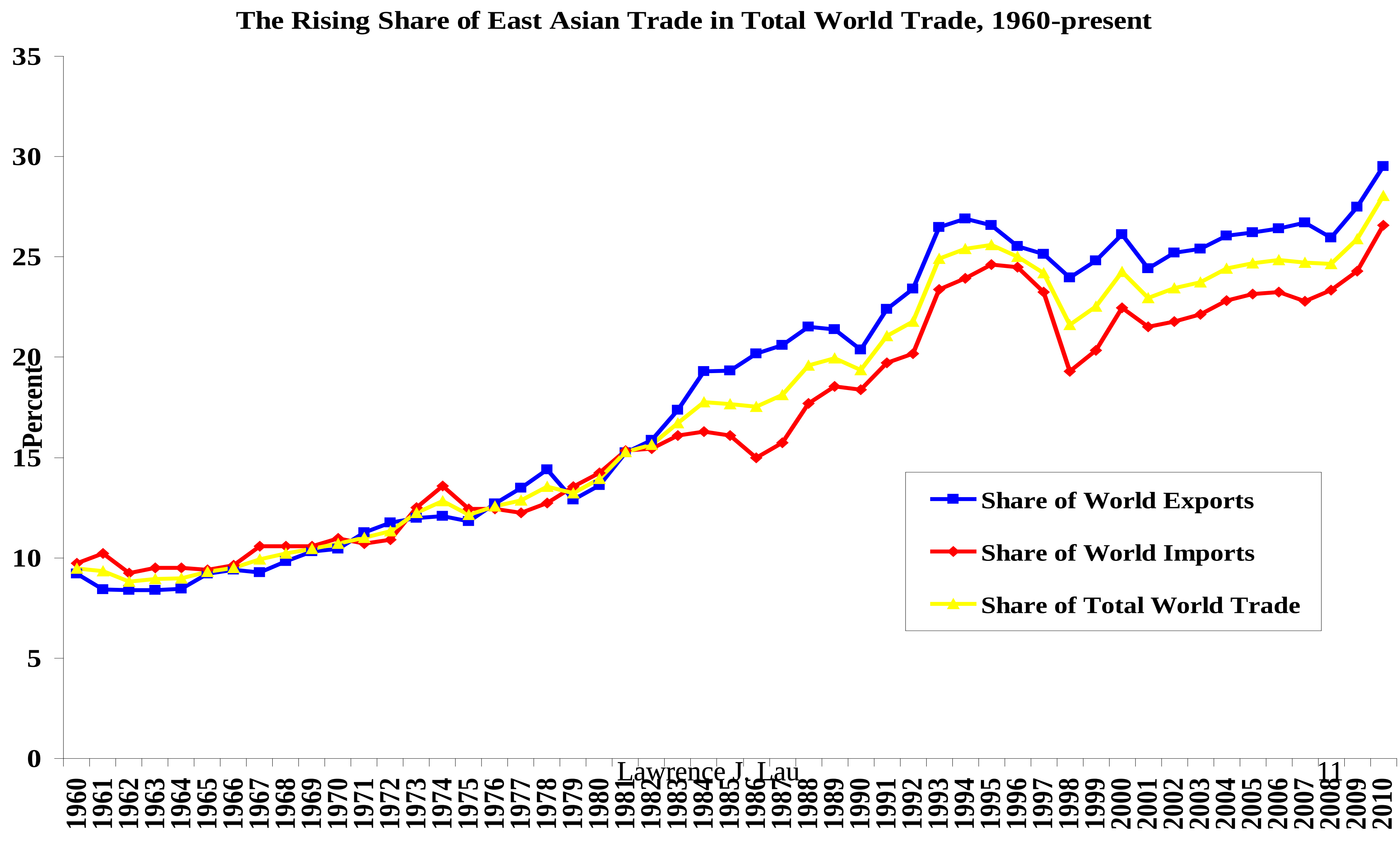
Real Chinese GDP per Capita in US$ Since 1952 (2010 Prices)



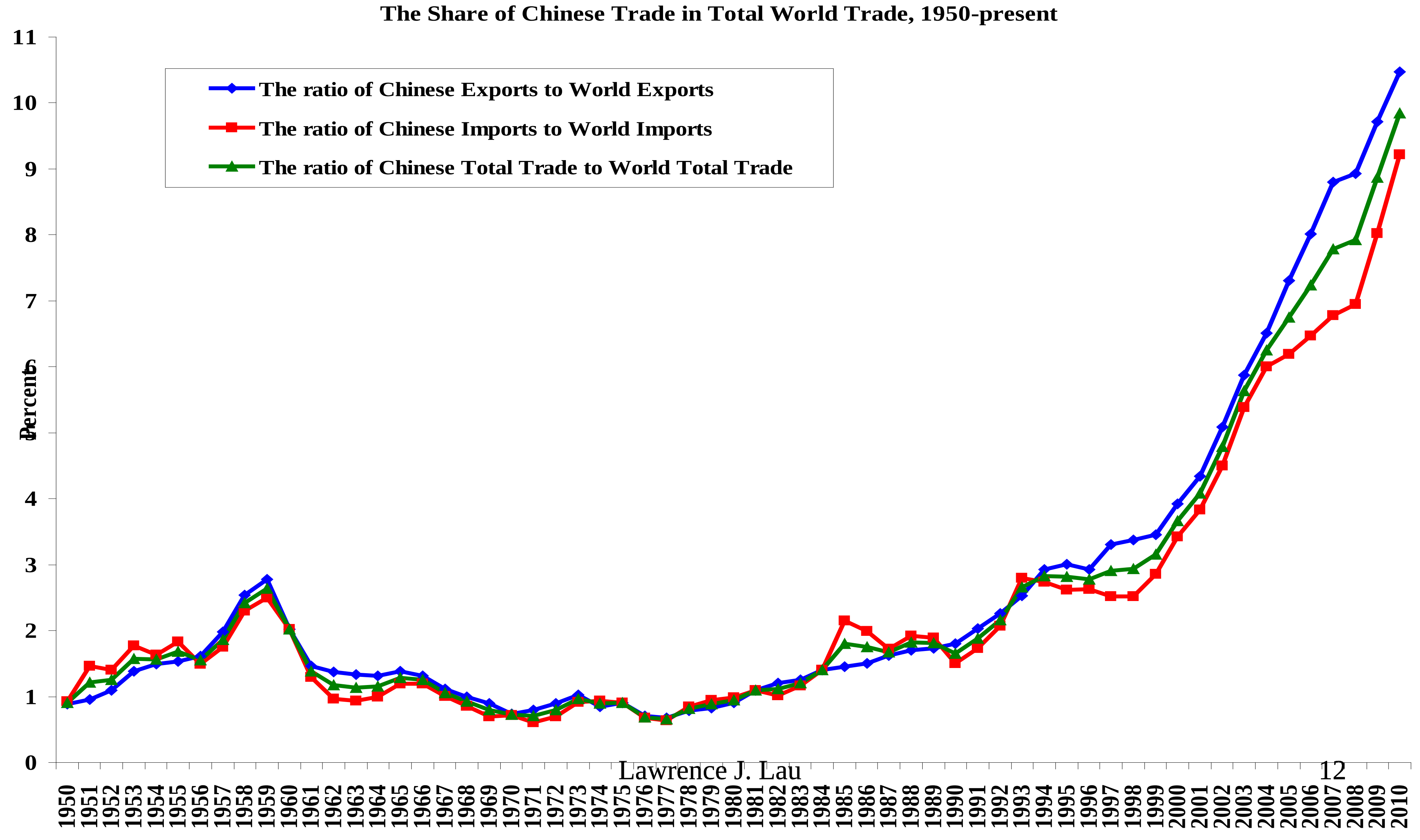
Introduction: East Asian and Chinese Shares of World Trade

- East Asian shares of World exports, imports, and international trade have also grown from approximately 10% in 1960 to a little below 30% in 2010, paralleling the growth of East Asian share of World GDP (see the following chart).
- The emergence of the Chinese economy on the global market was the single most significant new development during the past three decades. Chinese shares of World exports, imports and international trade have also grown rapidly. Chinese exports and imports have risen from approximately 1% of World exports and imports in 1960 to approximately 10% of World exports and imports in 2010.
- China has become the second largest trading country in the World, after the United States. China accounts for 35% of East Asian international trade today. China has also replaced Japan to become the largest importing country in East Asia and the most important export market for almost all East Asian economies and runs trade deficits vis-à-vis almost every one.

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



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



Introduction

- While many problems have arisen in the Chinese economy within the past decade—for example, increasing 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 every Chinese citizen has benefitted 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, as for example, in maintaining Chinese economic growth during the 1997-1998 East Asian currency crisis and the 2007-2009 global financial crisis.

Key Performance Indicators Before and After Chinese Economic Reform

	Growth Rates percent per annum	
	Period I	Period II
	1952-1978	**1978-2010**
Real GDP	**6.15**	**9.79**
Real GDP per Capita	**4.06**	**8.66**
Real Consumption	**5.05**	**8.88**
Real Consumption per Capita	**2.99**	**7.75**
Exports	**9.99**	**17.23**
Imports	**9.14**	**16.37**
Inflation Rates (GDP deflator)	**0.50**	**5.47**

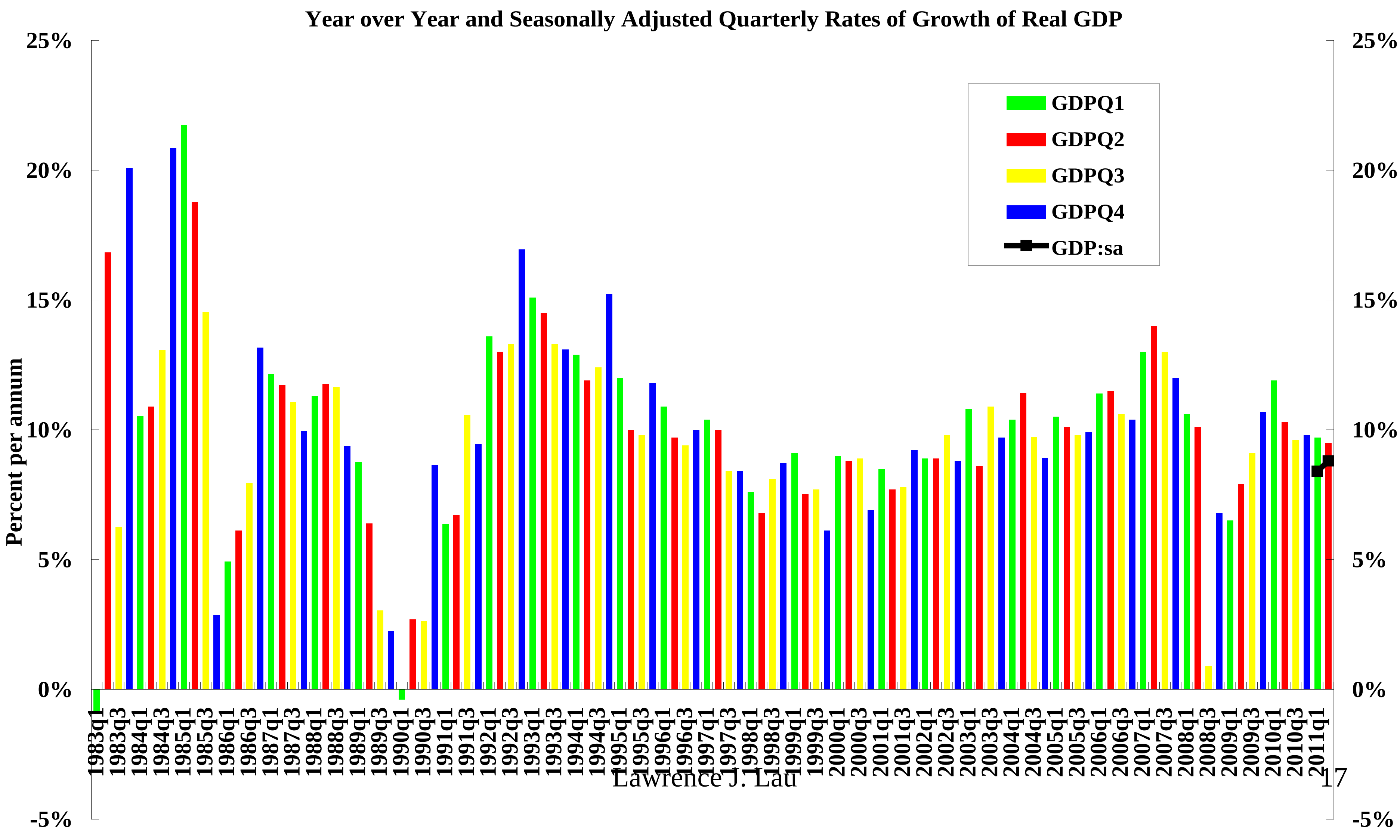
The Macroeconomic Outlook

- The Chinese economy has survived the global financial crisis of 2007-9 reasonably unscathed.
- The 4-trillion Yuan economic stimulus package launched by the Chinese Government in November 2008, barely six weeks after the bankruptcy of Lehman Brothers, has been quite effective in sustaining the confidence and positive expectations of the future of Chinese enterprises and households and thereby maintaining Chinese economic growth despite the economic turmoil in the United States and Europe.

The Macroeconomic Outlook

- The Chinese economy grew 9.1% in 2009 and 10.3% in 2010 even as the European and U.S. economies remained in recession.
- The outlook is that there will be a gradual slowdown in the real rate of growth of the economy in 2011, to perhaps between 8% and 9%, which is actually a positive development for the Chinese economy.
- While 8-9% may seem like a significant reduction from 10.3%, there are reasons to believe that the impact of the economic slowdown on Chinese employment will not be that severe.
- For 2011Q1 and Q2, the seasonally adjusted rates of growth were respectively 8.4% and 8.8%, confirming that a slowdown has already begun.

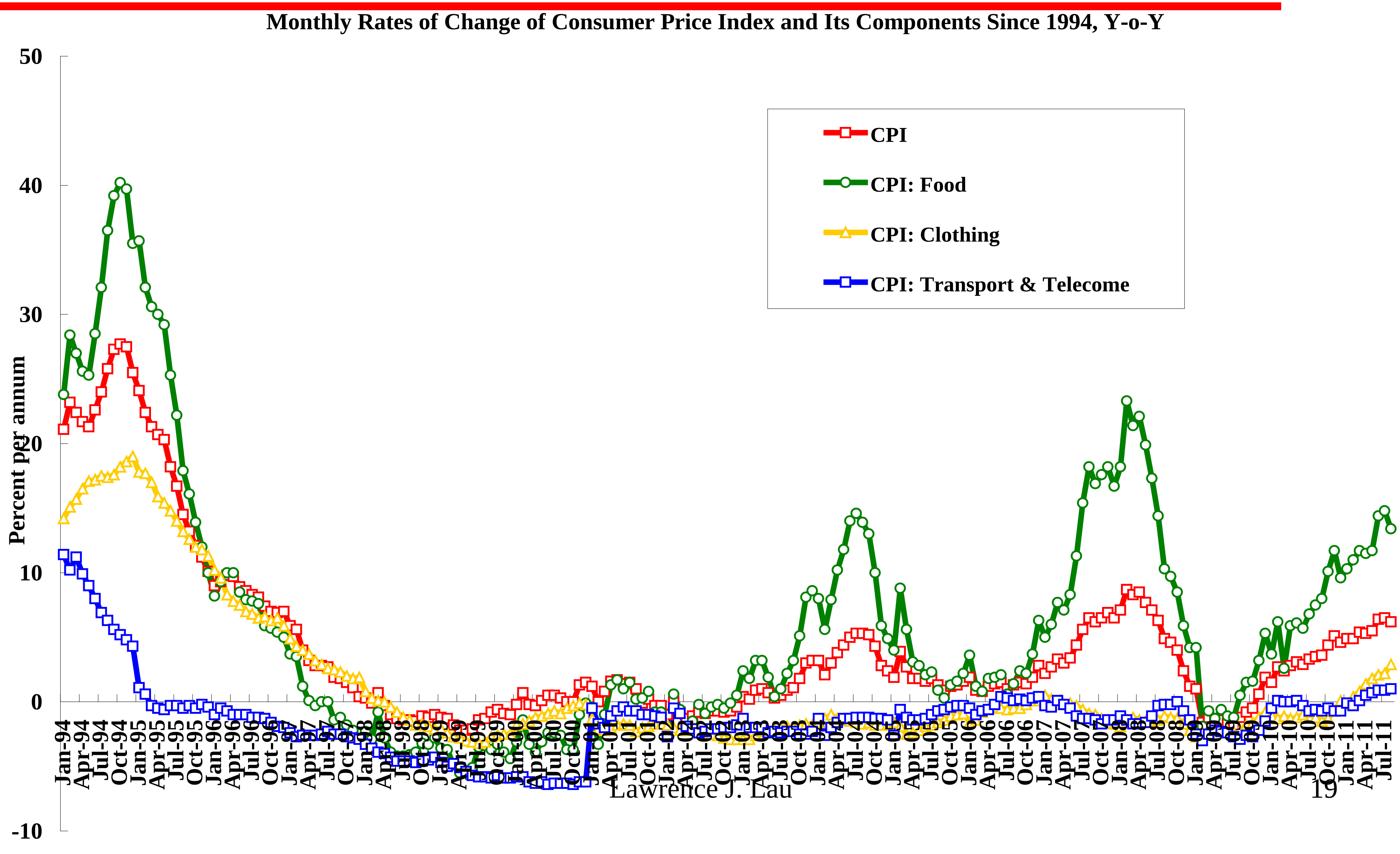
Quarterly Rates of Growth of Chinese Real GDP, Y-o-Y and Seasonally Adjusted



The Macroeconomic Outlook

- For 2010 as a whole, the rate of inflation of the prices of goods and services, as measured by the consumer price index (CPI), exceeded the objective of the Chinese Government of 3% slightly, at 3.3%.
- The CPI rose above 5% year-over-year in March 2011 and reached a peak of 6.5% year-over-year in July before falling back to 6.2% in August. However, the year-over-year rate is a lagging indicator. It is likely that the rate of increase of the CPI year-over-year will slow down significantly by the end of this year.

Monthly Rates of Change of the Consumer Price Index (CPI), Y-o-Y



The Macroeconomic Outlook

- The bulk of the increase in the consumer price index (approximately 70%) in 2010 was caused by the increase in food prices (principally vegetables), due mostly to weather and possibly also to some hoarding and market manipulation but not to monetary factors. In 2011, the increase in food prices is again the major cause, this time because of a shortage of pork.
- The core rate of inflation, that is, the rate of inflation net of the changes in the prices of agricultural and energy goods, has however, begun to drift upwards, driven by rising wages, rents and distribution margins. That is why the Central Government is determined to maintain a relatively tight monetary policy in order to rein in inflation and lower inflationary expectations.
- However, given the excess production capacity in many key industries, such as steel, cement, and glass, it is unlikely that there will be much inflation in the prices of non-agricultural goods in the next couple of years.

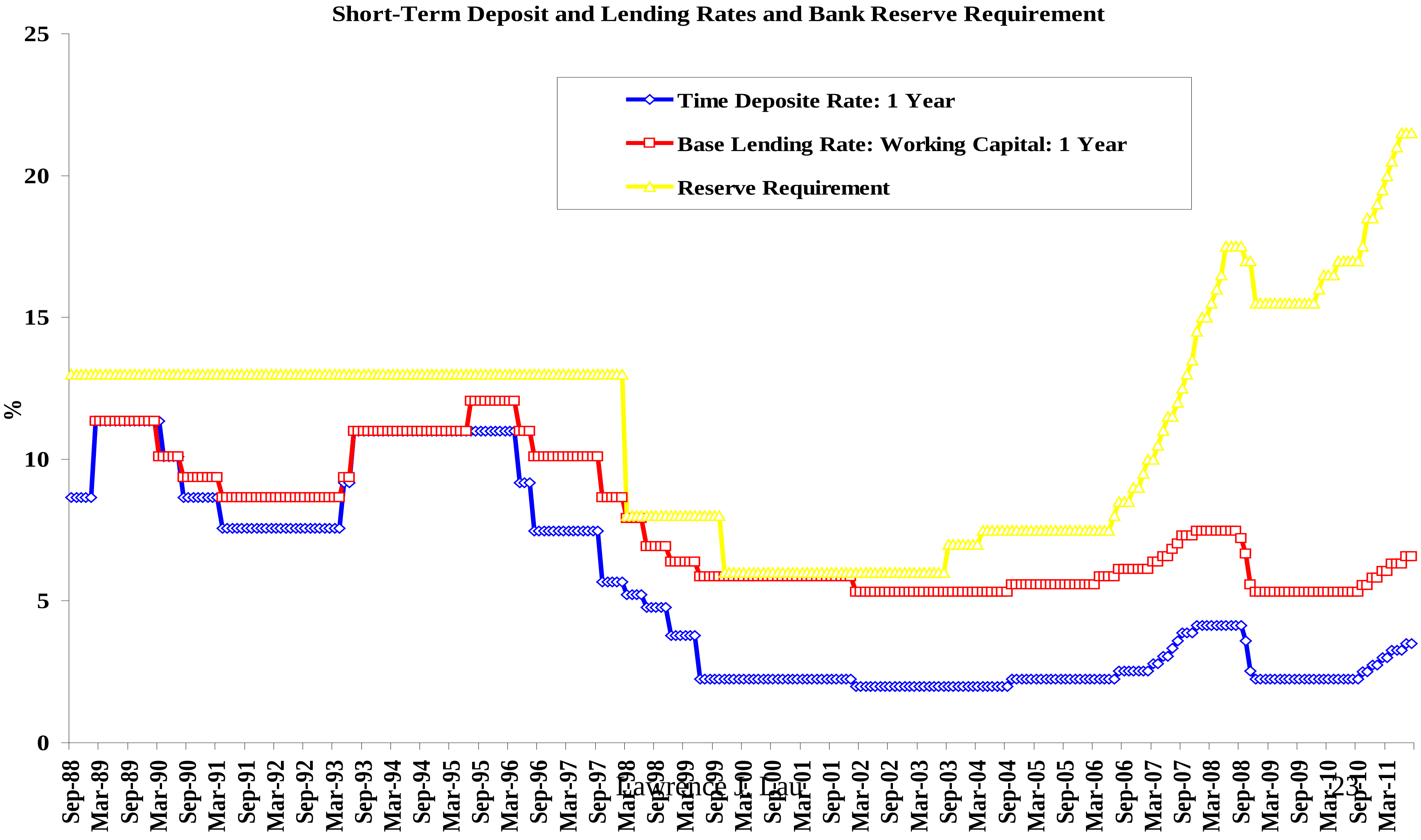
The Macroeconomic Outlook

- There has also been significant inflation in the prices of assets such as real estate since 2009, due in part to the implementation of the 4 trillion Yuan economic stimulus package and the significant increases in the rates of growth of money supply and commercial bank credit.
- Measures have been taken recently to contain the asset price bubble. State-owned enterprises that have not been explicitly authorised are now forbidden to invest in real estate. Bank lending rules have also been tightened so as to discourage the purchases of more than one residential unit by a single household. Non-local residents may have to wait years before being allowed to purchase a residential unit in some localities.

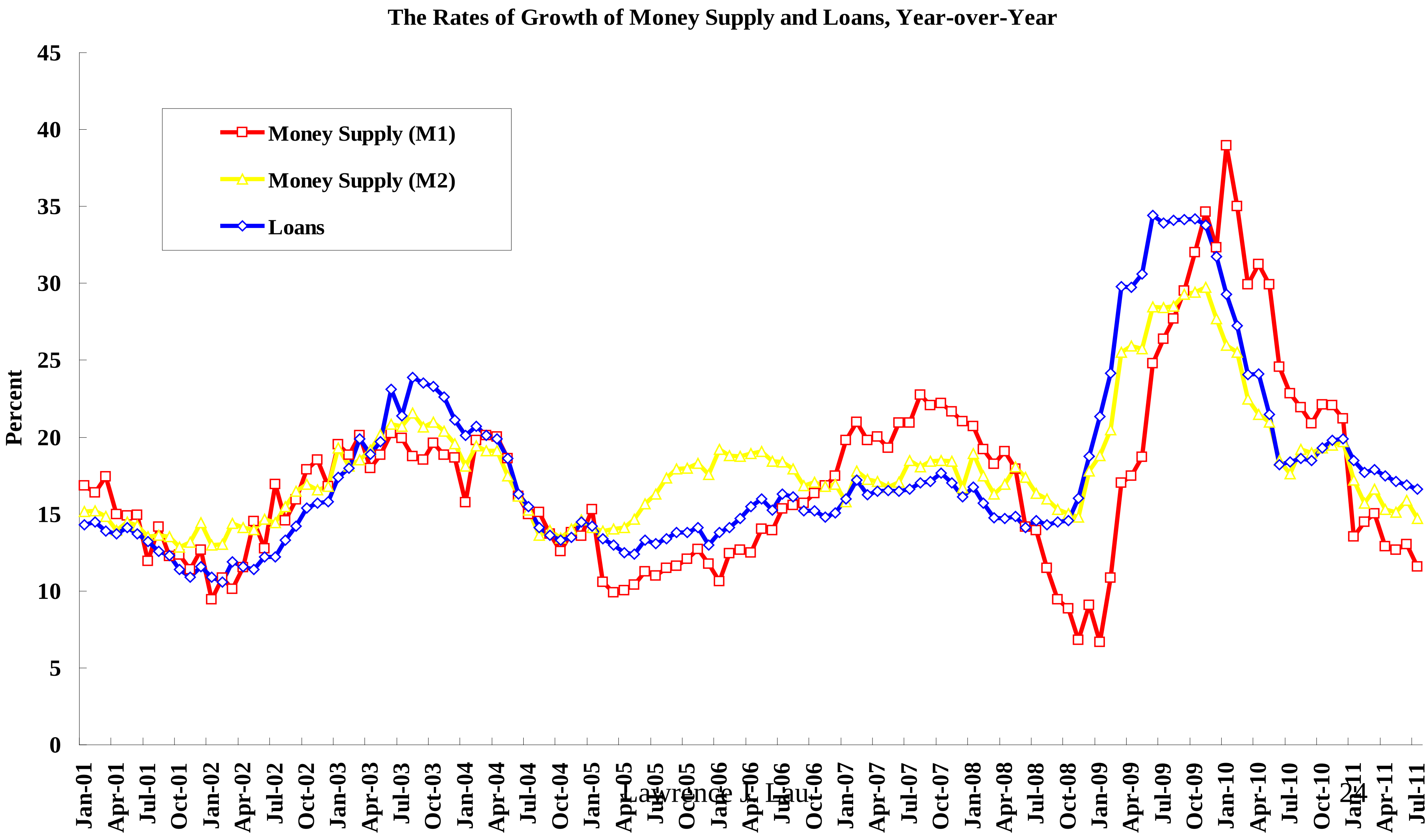
The Macroeconomic Outlook

- Recently, the People's Bank of China, the central bank, has also increased the rates of interest (the minimum lending rate and the maximum deposit rate) and the reserve requirement ratio repeatedly.
- The rates of growth of money supply (both M1 and M2) and loans have also declined significantly to more sustainable levels—to levels comparable to those before the 2007-2009 global financial crisis.

Short-Term Deposit and Lending Rates and Bank Reserve Requirement



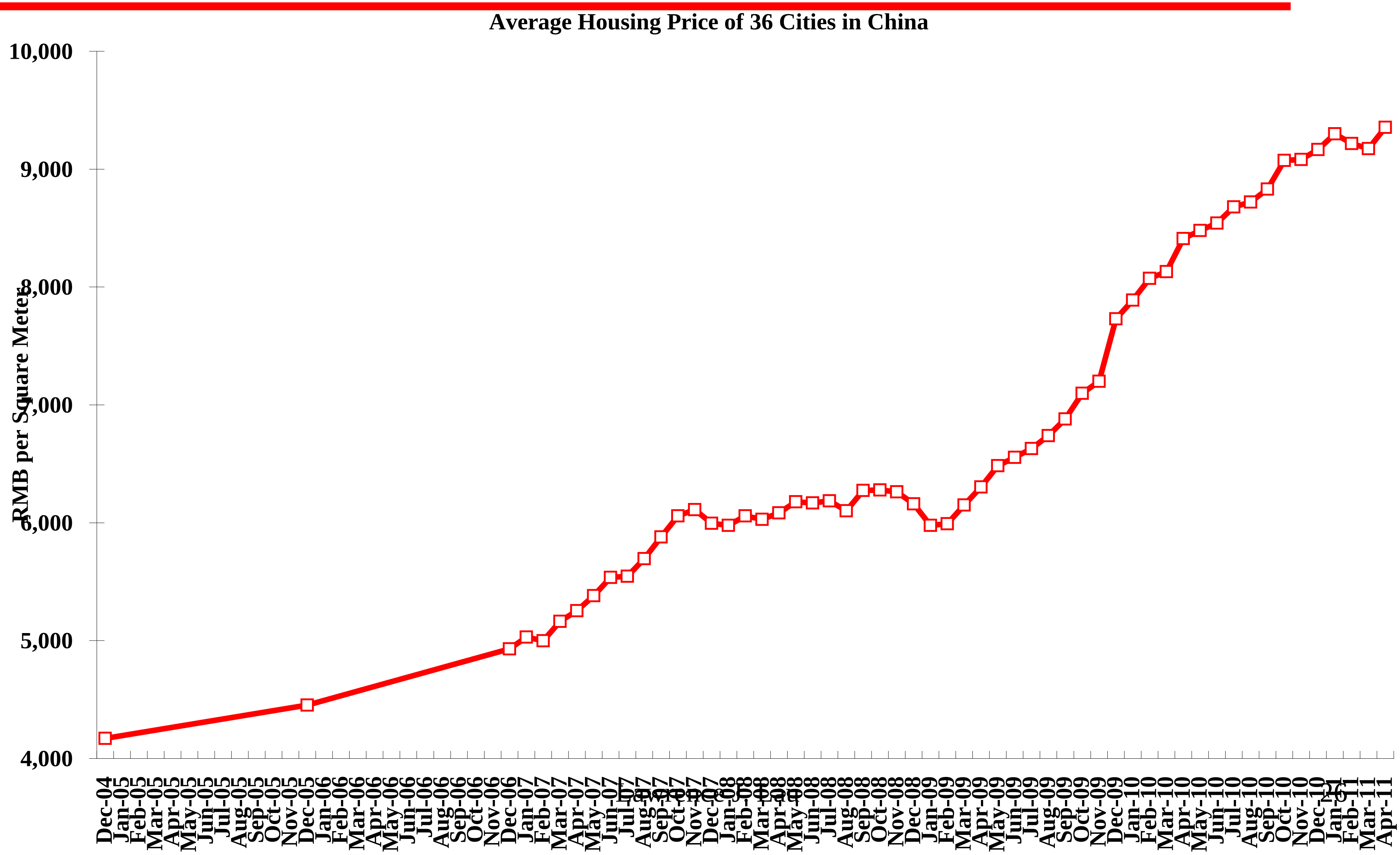
The Rates of Growth of Money Supply and Loans, Year-over-Year



The Macroeconomic Outlook

- There is not much that any central bank can do about agricultural prices. No head of a central bank anywhere in the World has been able to control the weather.
- Agricultural prices and outputs also follow their own cycles, with alternate periods of excess supply and demand—for example, the hog cycle.
- The real concern is with the increases in the prices of assets, especially real estate—that they will lead to increases in rents and hence in distribution and space costs, which can lead to general price inflation of goods and services at the retail level. Such increases can in turn feed into inflationary expectations and wage increases.

Average Price of Residential Property of 36 Cities, Yuan per Square Meter



The Macroeconomic Outlook

- The key in reining in increases in asset prices, especially real estate prices, is to ensure that there is a continuing dependable and steady supply of the assets going forward. Only credible and dependable future supply availability can change price expectations.
- It is therefore up to the Government to try to create and maintain the expectation of regular increases of actual and potential supply through both its policy and its actual behaviour.
- Under the Twelfth Five-Year Plan (2011-2015), 36 million affordable housing units are supposed to be completed during the next five years.

The Macroeconomic Outlook

- There are signs that the price of residential units has begun to fall.
- This is an area where the interests of the Central Government and the local governments may diverge. The Central Government would like to prick the housing price bubble but the local governments want to keep the price of land high and rising because land is their principal source of revenue.

The Macroeconomic Outlook

- If the public expects that residential housing units will be just as available or even more available next year compared to this year, there will be no reason for anyone to rush out to buy something now. Thus, the real estate price bubble can be more readily contained.
- All economic and financial bubbles burst eventually (The Japanese real estate price bubble in the late 1980s and early 1990s, the Hong Kong real estate price bubble in 1997-1998, and the U.S. housing price bubble between 1997 and 2006 are some examples from the real estate markets around the World). However, the longer the government waits to act, the larger the bubble becomes, and the greater the damage when it eventually bursts.

The Macroeconomic Outlook

- Other instruments that may be effective in containing the real estate price bubble, in addition to raising the rate of mortgage interest, include the strict control, perhaps even prohibition, of financing of any non-owner-occupied residential unit, and increasing the equity (down payment) to loan ratio.
- Capital gains tax, especially short-term capital gains tax, and stamp duty on real estate transactions, especially those that discriminate between short and long holding periods, can also be effective in reducing short-term speculation in the real estate market.
- The introduction of a property tax as a source of revenue for local governments will also help to discourage speculation as well as reduce the dependence of local governments on revenue from the sale of land leases and hence the incentive for maintaining high and rising expectations of local land prices.

The Economic Fundamentals

- Long-term economic growth of a country depends on the rates of growth of its primary inputs—capital (tangible or physical) and labour—and on technical progress (or equivalently the growth of total factor productivity)—that is, the ability to increase output without increasing inputs.
- The rate of growth of tangible or physical capital depends on the rate of investment on structure, equipment and basic infrastructure, which in turn depends on the availability of national savings.
- The rate of technical progress depends on investment in intangible capital (principally human capital and R&D capital).

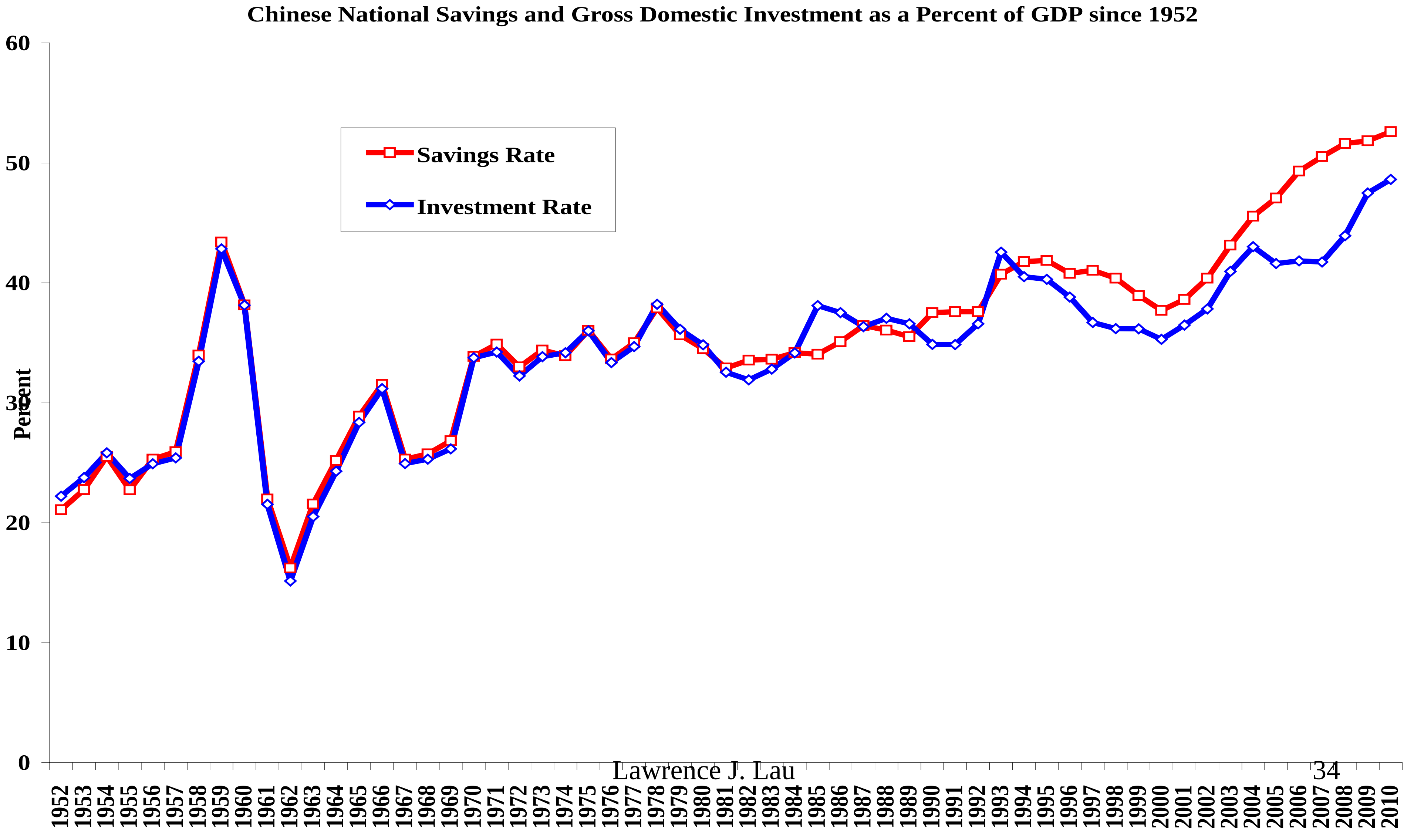
The Economic Fundamentals

- The most important source of Chinese economic growth over the past three decades has been the growth of inputs, principally tangible capital (structures, equipment, and basic infrastructure) and not technical progress. The growth of tangible capital accounts for the bulk, approximately 80%, of the measured economic growth in China.
- This experience is not unlike those of other East Asian economies such as South Korea and Taiwan and even Japan and the United States at a similarly early stage of economic development.

The Economic Fundamentals

- The Chinese national savings rate has been consistently high--it has been hovering around 40 percent since the early 1990s and has approached or even exceeded 50 percent in recent years, which is more than adequate to finance all of its domestic investment needs. (If anything, China invests too much, not too little.) It does not need to depend on foreign direct investment, foreign portfolio investment, or foreign loans. This will continue to be the case.
- China has an almost unlimited supply of surplus labour, ensuring that there will be little or no pressure on the real wage rate of unskilled, entry-level labour for decades to come.

Chinese National Savings and Gross Domestic Investment as Percents of GDP



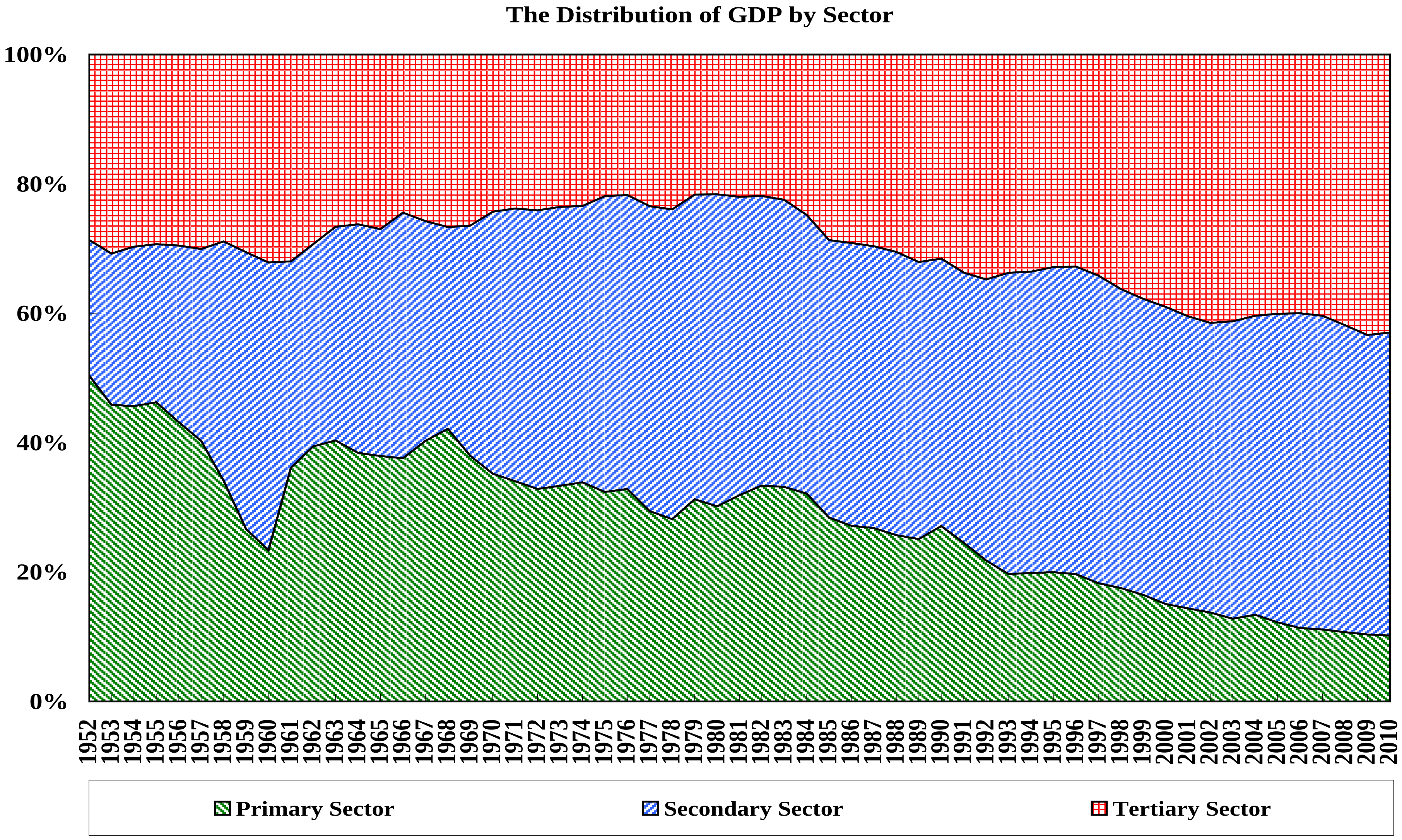
The Economic Fundamentals

- China, like Japan, Taiwan, and South Korea in their early stages of economic development, has an abundant supply of surplus labour. This means China can grow without being constrained by the supply of labour or by rising real wage rates of unskilled, entry-level labour over an extended period of time.
- Investment in physical capital is very productive under conditions of surplus labour and as long as there is sufficient complementary domestic physical capital, the surplus labour will enable the output of the economy to grow rapidly.
- This is exactly what the late Prof. W. Arthur Lewis, Nobel Laureate in Economic Sciences, said in his famous paper on surplus labour more than fifty years ago.

The Economic Fundamentals

- The distribution of Chinese GDP by originating sectors in 2010 was approximately: Primary (agriculture), 10.2%; Secondary (manufacturing, mining and construction), 46.9%; and Tertiary (services), 43.0%. (Note that mining is normally included in the primary sector in most other economies.)

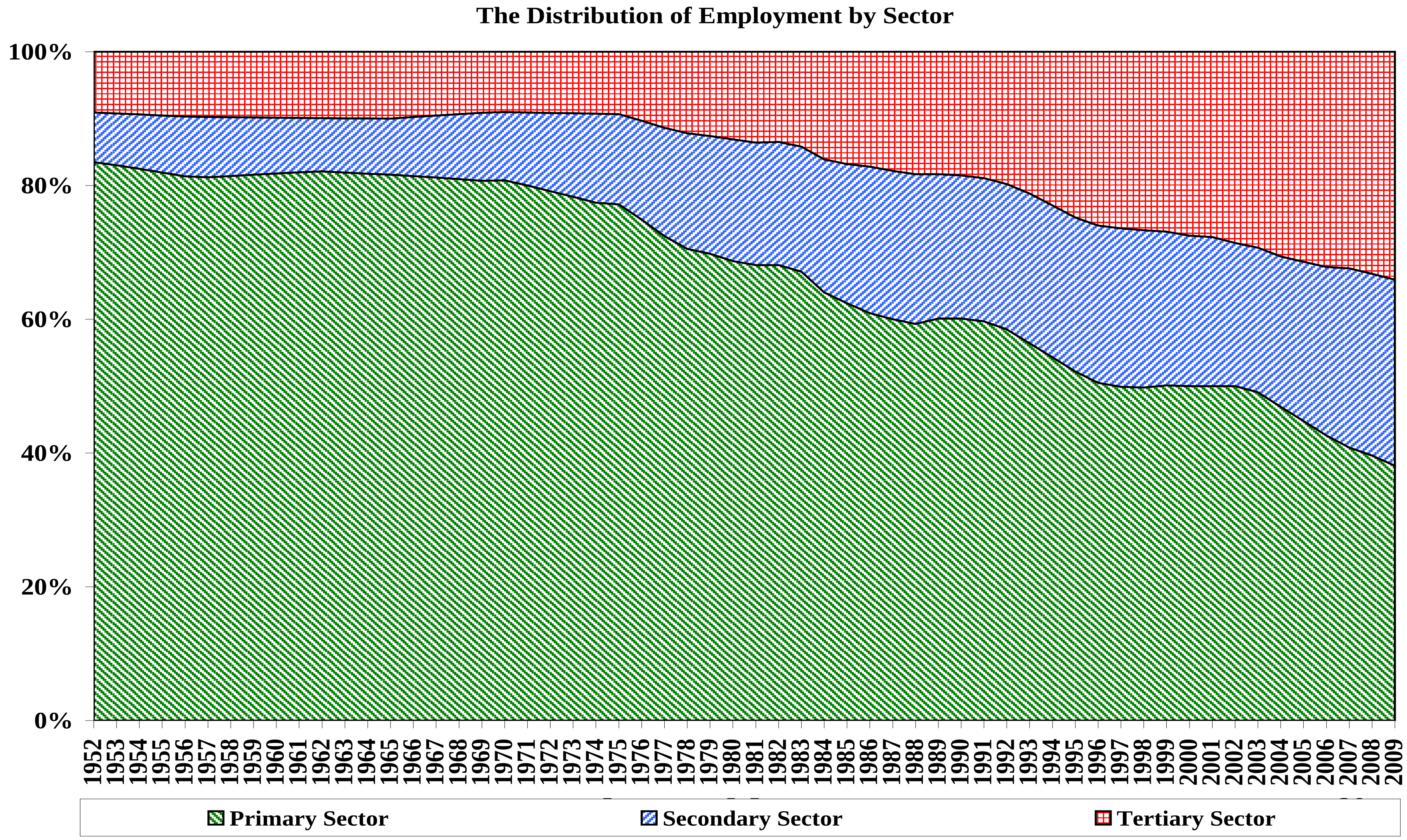
The Distribution of Chinese GDP by Sector Since 1952



The Economic Fundamentals

- But the bulk of the labour force, more than 40%, is still employed in the primary sector, waiting to be transferred to the other two sectors which have higher productivity.
- As long as the percentage of labour force employed in the primary sector significantly exceeds the percentage of GDP originating from the primary sector, there is little or no upward pressure on the real wage rate of unskilled, entry-level labour in the secondary and tertiary sectors.

The Distribution of Chinese Employment by Sector Since 1952



The Economic Fundamentals

- It took thirty years for the percentage of labour force employed in the Chinese primary sector to decline from 70% in 1978 to its current 40%, at the rate of approximately 1 percentage point per year.
- It will take approximately another 30 years for the percentage of labour force employed in the Chinese primary sector to decline from its current 40% to below 10%, which is approximately the same as the percentage of Chinese GDP produced by the primary sector today. By that time (2040), it is expected that the primary sector will account for no more than 5% of Chinese GDP.
- China will therefore continue to have surplus labour for another two or three decades. There will not be any shortage of unskilled, entry-level labour for a long time to come, even though there may be shortages of skilled or experienced labour in the secondary and tertiary sectors.

The Economic Fundamentals

- Even with increases in the levels of minimum wage rates in the different provinces, regions and municipalities, the real wage rate of unskilled, entry-level labour has basically remained stable and is expected to be stable for a long time because of the continuing existence of significant surplus labour in the Chinese economy.
- However, there is upward pressure on the real wage rates of skilled and experienced labour, which is actually in short supply, especially as Chinese enterprises move up the value-added chain. The high-profile wage settlements made by Honda and Foxconn plants in China in 2010 provided for wage increases of 24 percent and 30 percent respectively.
- But given the trend of rapid expansion of Chinese tertiary education in recent years, with 6 million new graduates projected annually, the increase in the real wage rate of even skilled labour is likely to be relatively limited going forward.

The Economic Fundamentals

- On intangible capital, China has a long tradition of emphasis on education and learning (human capital) and will be increasing its investment in human capital. The enrollment rate of tertiary education has been rising rapidly and stands at 24 percent today. It is expected to rise further over the next decades as private tertiary educational institutions become more numerous in response to demand and facilitated by government policy.
- China has also begun to increase its expenditure in Research and Development (R&D), with the goal of increasing it from the current 1.8 percent to 2.2 percent of GDP by 2015.

The Economic Fundamentals

- The huge domestic market of 1.34 billion consumers allows economies of scale in production to be easily realised in China. The domestic demand alone is large enough to support efficient-scale plants in many industries.
- The huge domestic market of 1.34 billion consumers also greatly enhances the productivity of intangible capital (e.g., R&D capital, goodwill). The fixed research and development costs of a new product or process can be easily amortised over a large market. The benefits of investment in goodwill, e.g., brand-building, are also much greater in a large market.

The Economic Fundamentals

- The huge domestic market also enables active Chinese participation in the setting of product and technology standards, for example, fourth-generation (4-G) standards for telecommunication, and sharing the benefits of such standard-setting.
- Brand-building is a pre-requisite for Chinese enterprises to re-orient themselves to take advantage of the huge domestic market. It is true that brand-building requires resources, but it also enables the owners of brand names to have much more pricing power and higher profit margins than enterprises that do only OEM (original equipment manufacturing) business.

The Economic Fundamentals

- In addition to a high national savings rate, a large pool of surplus labour, a huge domestic market, and rising investment in intangible capital (human capital and R&D capital), China also has the advantage of relative backwardness. It has:
  - The ability to learn from the experiences of successes and failures of other economies;
  - The ability to leap-frog and by-pass stages of development (e.g., the telex machine, the VHS video players, the fixed landline phones); and
  - The possibility of creation without destruction (e.g., online virtual bookstores like Amazon.com do not have to destroy brick and mortar bookstores which do not exist in the first place).
- China also possesses an abundance of scientific and technical manpower the cost of which is a fraction of the cost in developed economies.

The Metaphor of the “Wild Geese Flying Pattern”

- The metaphor of the "wild-geese-flying pattern" of East Asian economic development over time, due to Prof. Kaname Akamatsu (1962) of Japan, suggests that industrialisation will spread from economy to economy as the initially fast-growing economies, beginning with Japan, run out of surplus labour and face labour shortages, rising real wage rates, appreciating exchange rates of their currencies and quota restrictions on their exports.
- Thus East Asian industrialisation spread from Japan to first Hong Kong in the late 1950s, and then Taiwan in the early 1960s, and then South Korea in the late 1960s, and then Southeast Asia (Thailand, Malaysia, Indonesia) in the 1970s, and then to Guangdong, Shanghai, Jiangsu and Zhejiang in China as China undertook economic reform and opened to the World beginning in 1978.
- The industrial migration has continued with Vietnam, Khmer Republic, Laos and Bangladesh as the real wage rate begins to rise in the coastal regions of China and the Renminbi appreciates in value.

The Metaphor of the "Wild Geese Flying Pattern"

- During this industrial migration, the large trading firms such as Mitsubishi, Mitsui, Marubeni and Sumitomo of Japan and Li and Fung of Hong Kong played an important role as financiers, intermediaries and managers of logistics and supply chains.
- However, this metaphor applies not only to East Asian economies but also to within the Chinese economy itself. Within China, industrialisation began first in the coastal provinces, regions and municipalities and then would migrate and spread to other provinces, regions and municipalities in the interior as wage rates rose. As the coastal provinces, regions and municipalities began to slow down in their economic growth, the central and western provinces, regions and municipalities would take their turn as the fastest growing areas in China. China as a whole will be able to maintain its high rate of growth for many years to come.

The Twelfth Five-Year Plan for National Economic and Social Development

- The Eleventh Five-Year Plan for National Economic and Social Development of China officially ended on 31st December 2010.
- Most of the Plan targets were achieved or exceeded, including the reduction in energy consumption per unit GDP of 20 percent compared to year end 2005.
- The Eleventh Five-Year Plan provided for a target rate of growth of real GDP of 7.5% per annum between 2005 and 2010. The actual rate of growth achieved was 11.2% per annum.
- The only other major target not achieved was the percentage of GDP expended on R&D—the target was 2% and the actual achieved was 1.8%.

The Twelfth Five-Year Plan for National Economic and Social Development

- The Twelfth Five-Year Plan for National Economic and Social Development of China (2011-2015) was approved by the National People's Congress in mid-March of this year. It is mostly an indicative plan rather than a mandatory plan.
- The most remarkable feature of the Twelfth Five-Year Plan is the lowering of the target real growth rate from 7.5% per annum in the Eleventh Five-Year Plan to 7% per annum in the current Plan. It is almost certain that this target will be exceeded, just as the target was exceeded in the 11th Five-Year Plan (the actual rate achieved was 11.2%). However, the reduction in the target growth rate signals the determination of the Chinese Government to de-emphasise quantitative economic growth and to focus on the quality of the economic growth.

The Twelfth Five-Year Plan for National Economic and Social Development

- A principal theme of the Twelfth Five-Year Plan is the transformation in the mode of Chinese economic development—**first, from export-oriented to domestic demand-oriented and second, from input-driven to technical progress- or innovation-driven**.
- The Plan also aims at essentially balanced international trade in goods and services.

The Twelfth Five-Year Plan for National Economic and Social Development

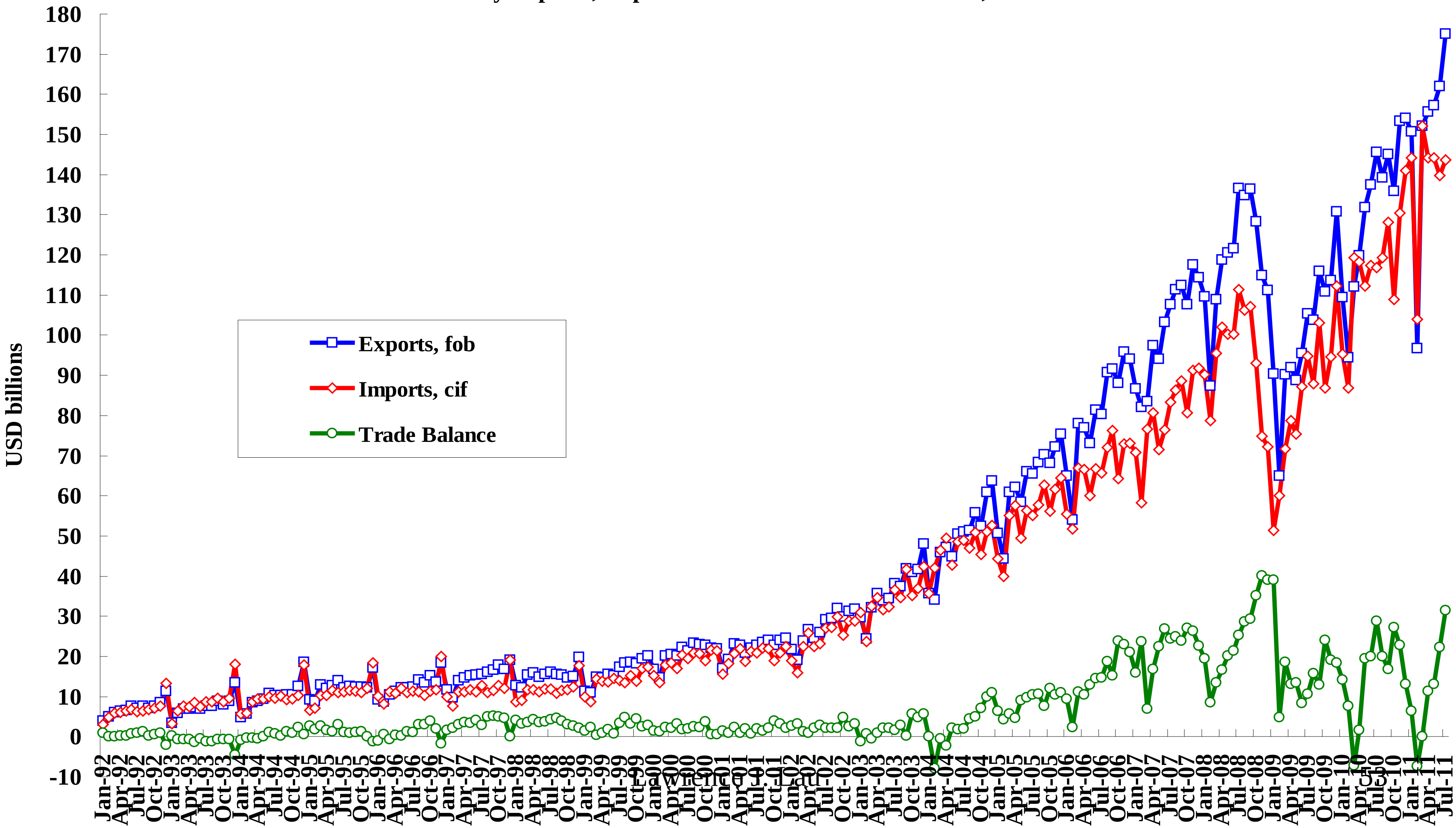
- The Plan also provides for increased expenditures for education and healthcare, especially in the rural regions, environmental preservation and protection, and air and water pollution control. It also has mandatory targets for improvement in energy efficiency (energy consumption per unit GDP to decrease by 16%) and reduction in carbon emission (to decrease by 17%) by the end of the Five-Year Plan in 2015.
- It also provides for improvements in the income distribution through taxation, transfer payments and targeted government expenditures on education and health care.
- The Plan also calls for more infrastructural investment in the Central and Western parts of the country, thus also helping to improve the inter-regional income distribution.

Transformation of the Mode of Development

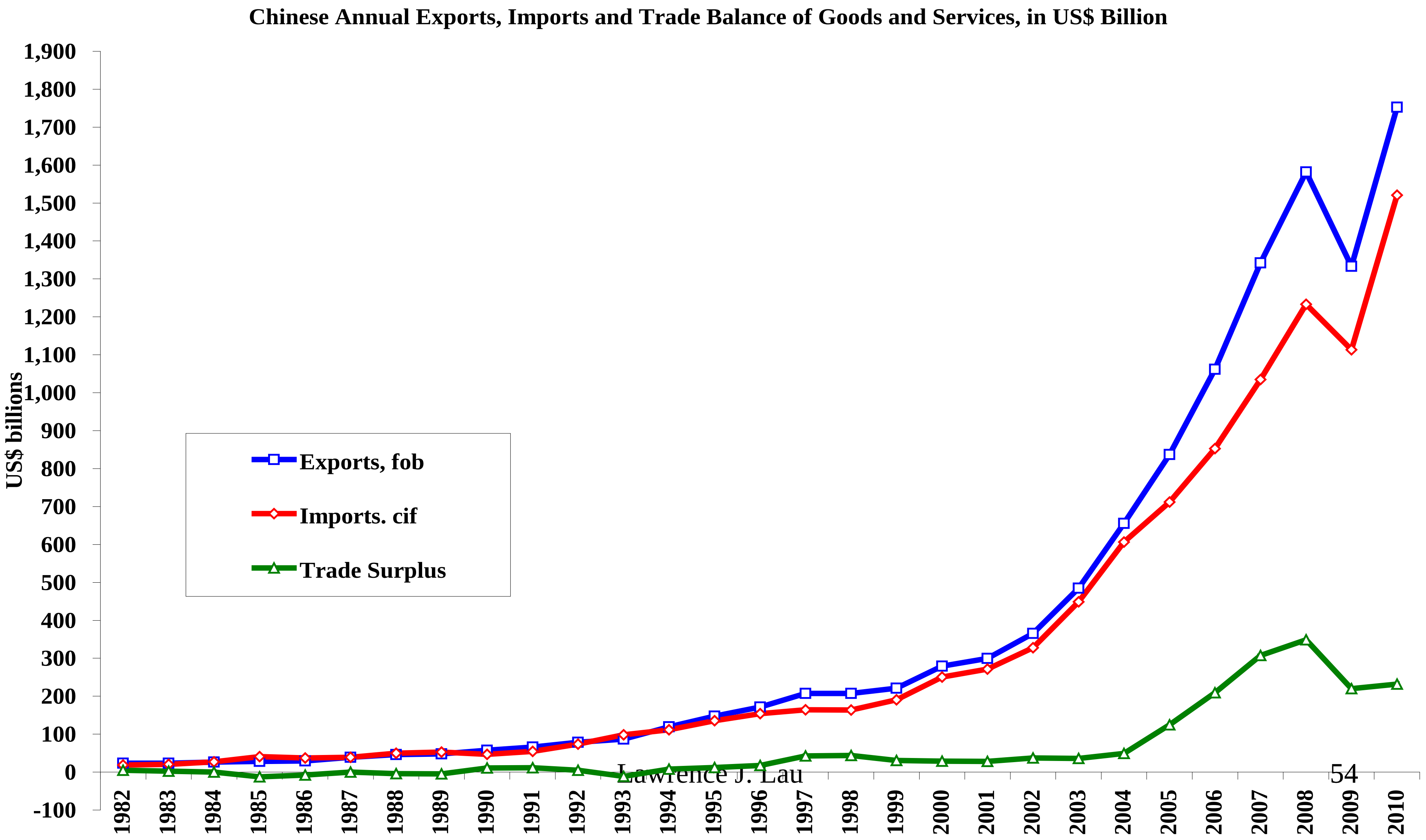
- There is a common mis-impression that the Chinese economy is highly dependent on exports, and in particular, on its export surpluses, as a source of growth.
- The fact is that China only began to have a significant trade surplus vis-a-vis the World in 2005, whereas the Chinese economy has been growing at an average real rate of almost 10 percent per annum since 1978.
- It should therefore be clear that the trade surpluses could not have been an important source of growth for the Chinese economy during the past three decades. Chinese economic growth does not depend on Chinese trade surpluses.

Chinese Monthly Exports, Imports and Trade Balance, US$

Chinese Monthly Exports, Imports and Trade Balance of Goods, in U.S. Dollars



Annual Chinese Exports, Imports and Trade Balance of Goods and Services

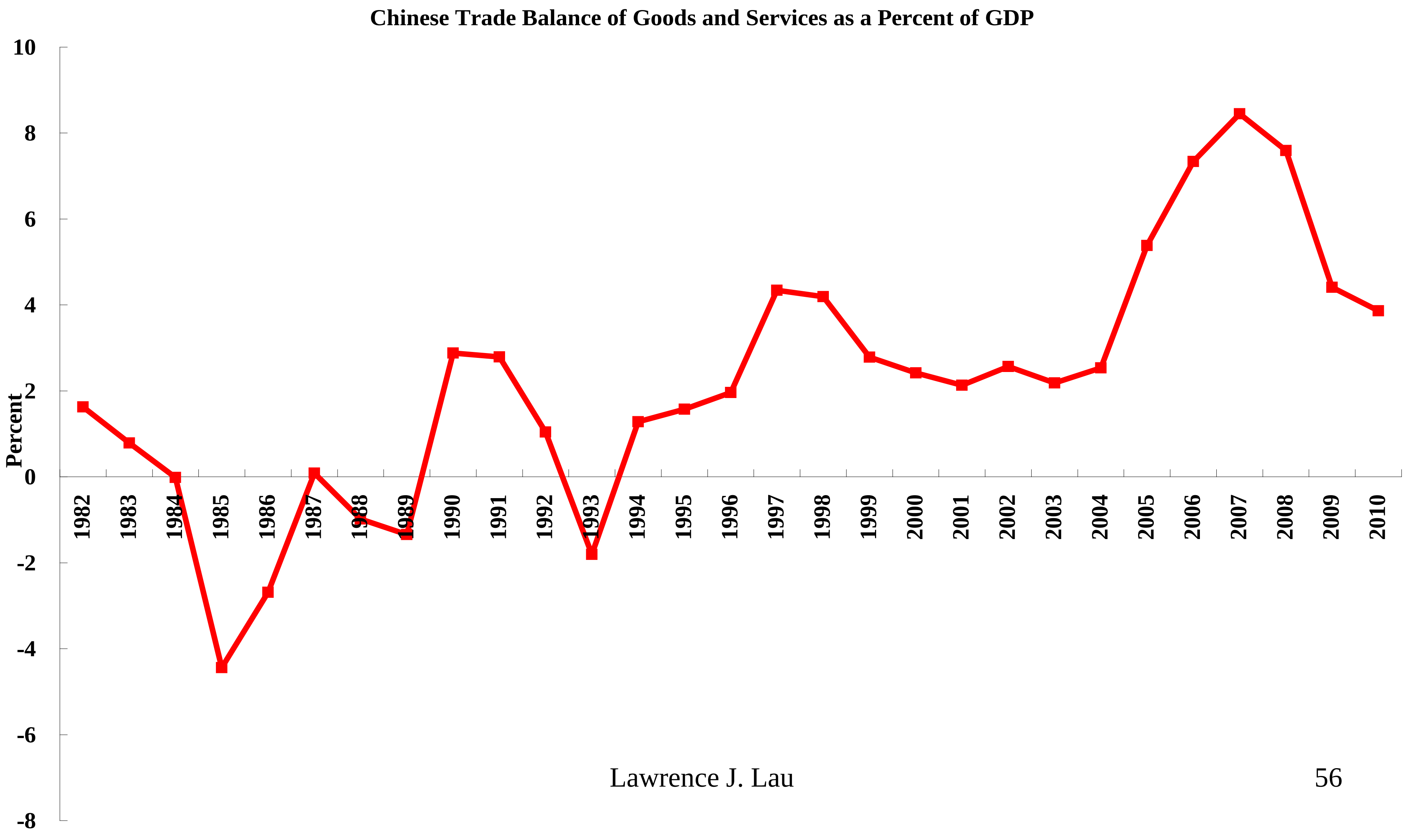


Lawrence J. Lau

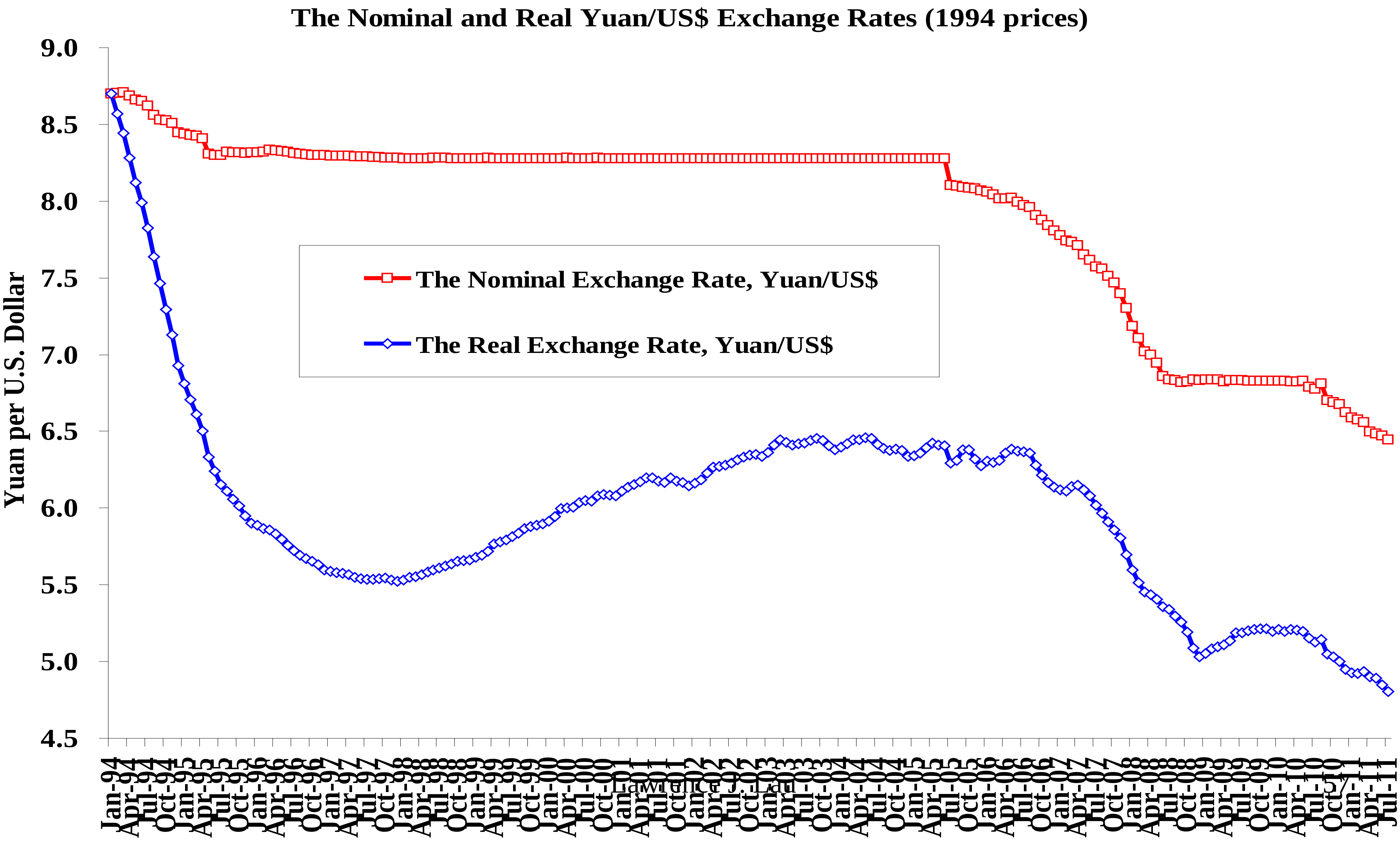
From Export-Oriented to Domestic Demand-Oriented

- Chinese trade surplus as a percent of Chinese GDP fluctuated between -4.5 percent and 4.5 percent between 1982 and 2004 with an average of less than 2 percent of GDP. It then rose to a peak of almost 9 percent in 2007. It has since declined significantly and was less than 3 percent in 2010. China should have no problem meeting a 4% trade surplus to GDP target as proposed by the United States.
- Chinese international trade in goods and services vis-à-vis the whole world is expected to be essentially balanced in a couple of years, without necessarily any large adjustments in the Yuan/US$ exchange rate.
- One reason that this is possible is the gradual closing of the savings-investment gap in China, as well as the substantial real appreciation of the Yuan versus the U.S.$ that has occurred since mid-2005, to the tune of 25%.

Chinese Trade Balance of Goods & Services as a Percent of GDP, 1982-



The Nominal and Real Yuan/US$ Exchange Rates



From Export-Oriented to Domestic Demand-Oriented

- Chinese exports as a proportion of GDP rose steadily beginning in 1978 and reached a peak of almost 40 percent in 2006 and then began to decline to between 25 and 30 in 2011.
- While this ratio appears large, it is not when compared to Hong Kong, Singapore, South Korea and Taiwan, where exports are more than 100 percent of the respective GDPs.
- And the Chinese Exports/GDP ratio actually exaggerates the importance of exports in the Chinese economy because it fails to take into account the low domestic value-added content of Chinese exports.

Chinese Exports of Goods and Services as a Percent of GDP, 1970-present

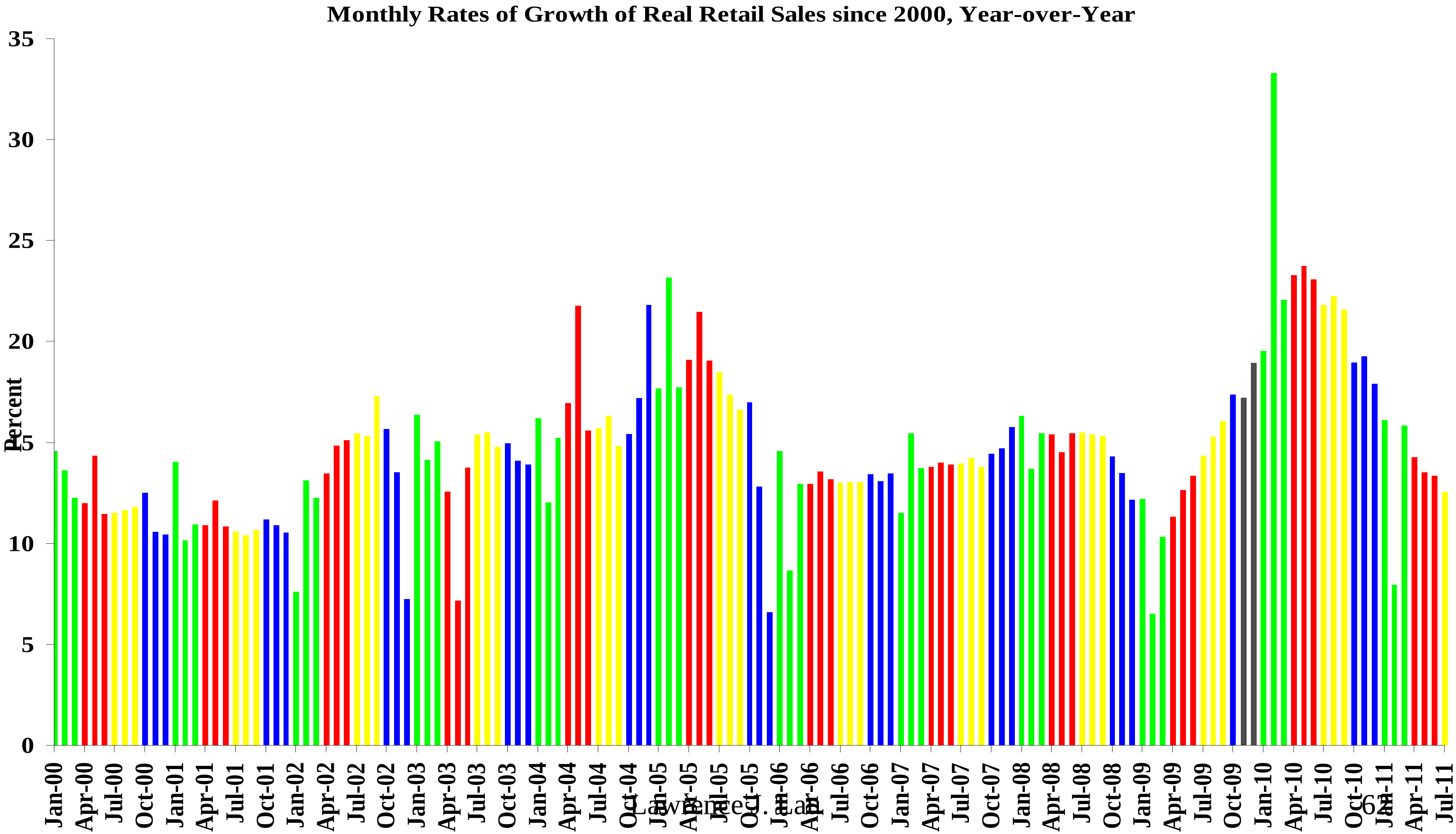
From Export-Oriented to Domestic Demand-Oriented

- Large continental economies, such as the United States, are mostly driven by their internal demands, and not by international trade. Exports have never been very important to the U.S. economy, and the U.S. economy has never been dependent on international trade, except perhaps in the 19th Century.
- For the Chinese economy it is the same—Chinese economic growth in the future decades will mostly depend on internal demand rather than exports. The Chinese exports to GDP ratio is expected to decline in the coming years as befitting a large, continental economy and as the Chinese economy re-orients itself to domestic demand. The relative shift in the composition of Chinese GDP to the service sector also reduces the potential relative supply of Chinese goods for export.

From Export-Oriented to Domestic Demand-Oriented

- Chinese household consumption is sometimes viewed as a potential sustainable source of growth of Chinese domestic aggregate demand. It has actually been growing quite rapidly, as indicated by the double-digit monthly year-over-year rates of growth of real retail sales since the first quarter of 2009.
- The rates of growth of real retail sales have far exceeded the rates of growth of real GDP or real household income during the same period, reflecting in part the lagged adjustment process of household consumption to increases in household income.
- Real rates of growth of consumption that are significantly higher than the rates of growth of real GDP may persist for a while if real household income continues to grow rapidly. But they are sustainable only if the share of household income in GDP, currently less than 50%, continues to increase.

Monthly Rates of Growth of Chinese Real Retail Sales, Y-o-Y



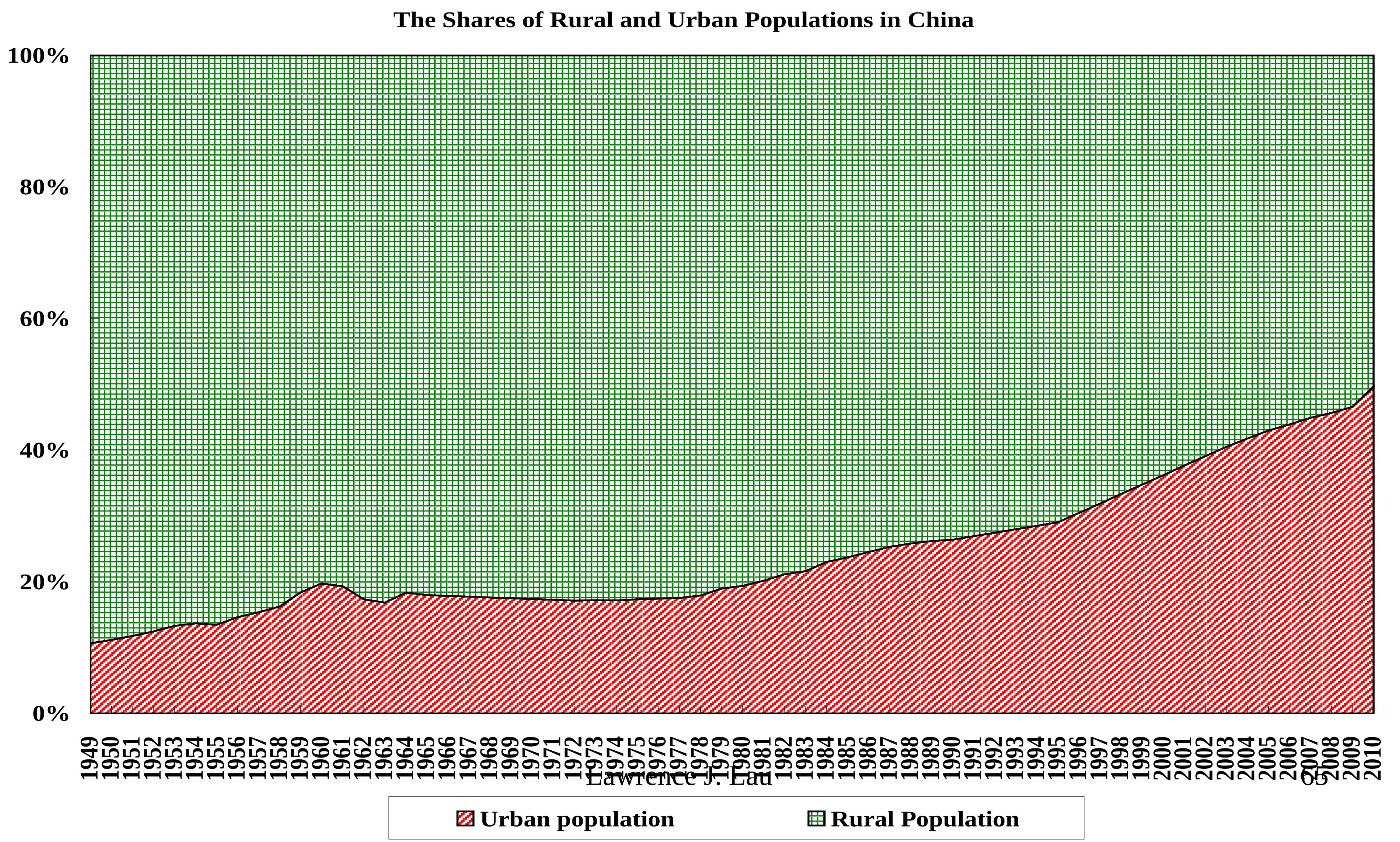
From Export-Oriented to Domestic Demand-Oriented

- The possible areas that have the potential of generating sustainable increases in aggregate domestic demand, in addition to household consumption and public infrastructural investment (e.g., high speed railroads, intra-urban mass transit systems, power plants, etc.), include investments in the following sectors:
- (1) Accelerated urbanisation;
- (2) Owner-occupied residential housing;
- (3) Investment in the conservation of energy, clean and renewable energy, and environmental protection and preservation; and
- (4) Education and health care and the application of high technology in these sectors.

From Export-Oriented to Domestic Demand-Oriented: Urbanisation

- The share of rural population in China was just under 90% in 1949. By 1978, the beginning of the Chinese economic reform and opening to the World, the share of rural population was 82%.
- By 2010, the share of rural population has fallen to 52.5%. Still more than half of Chinese population lives in rural areas. It is expected to continue to fall during the period of the Twelfth Five-Year Plan, 2011-2015, by 4 percentage points, to 48.5%.
- The rate of decline of the share of rural population has been approximately 1 percentage point per year, about the same rate of decline as the share of employment of the primary (agriculture and mining) sector.
- It is expected that the share of rural population will continue to decline by 1 percentage point a year until 2040, when the share of rural population will have fallen below 25%.

The Shares of Rural and Urban Population in China, 1949-Present



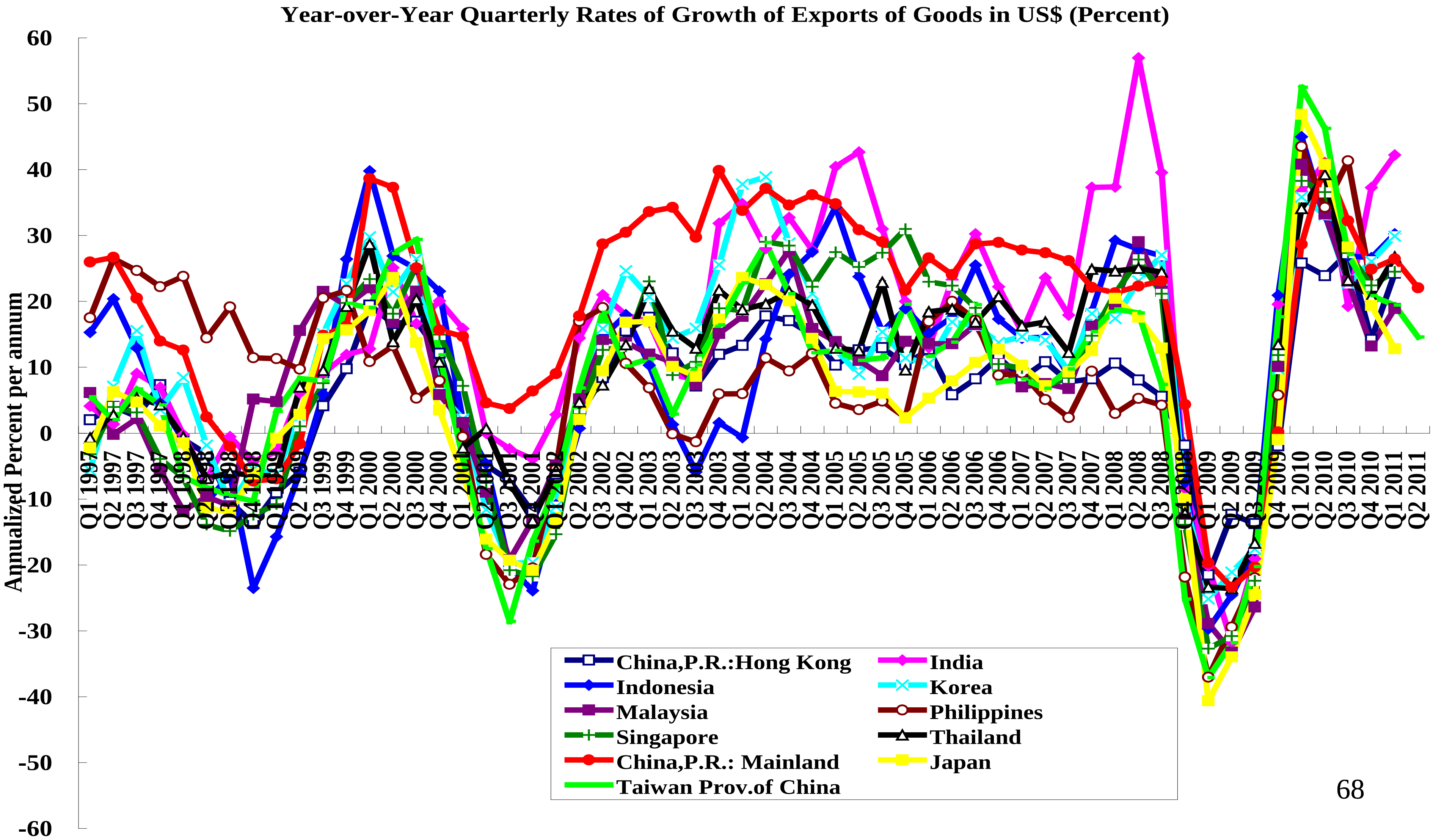
From Export-Oriented to Domestic Demand-Oriented

- Accelerated urbanisation will take the form of the building of new cities and expansion of old cities in the currently less developed areas in central and Western China rather than expansion of existing cities in the coastal areas.
- The objective is to bring capital to where the labour is, rather than bring labour to capital, which was the model of economic development during the past thirty years. The phenomenon of the "migrant labour" leaving their homes and taking jobs in the coastal areas of Guangdong, Jiangsu, Shanghai and Beijing will slowly be replaced by the industrialisation in the central and Western areas of China.

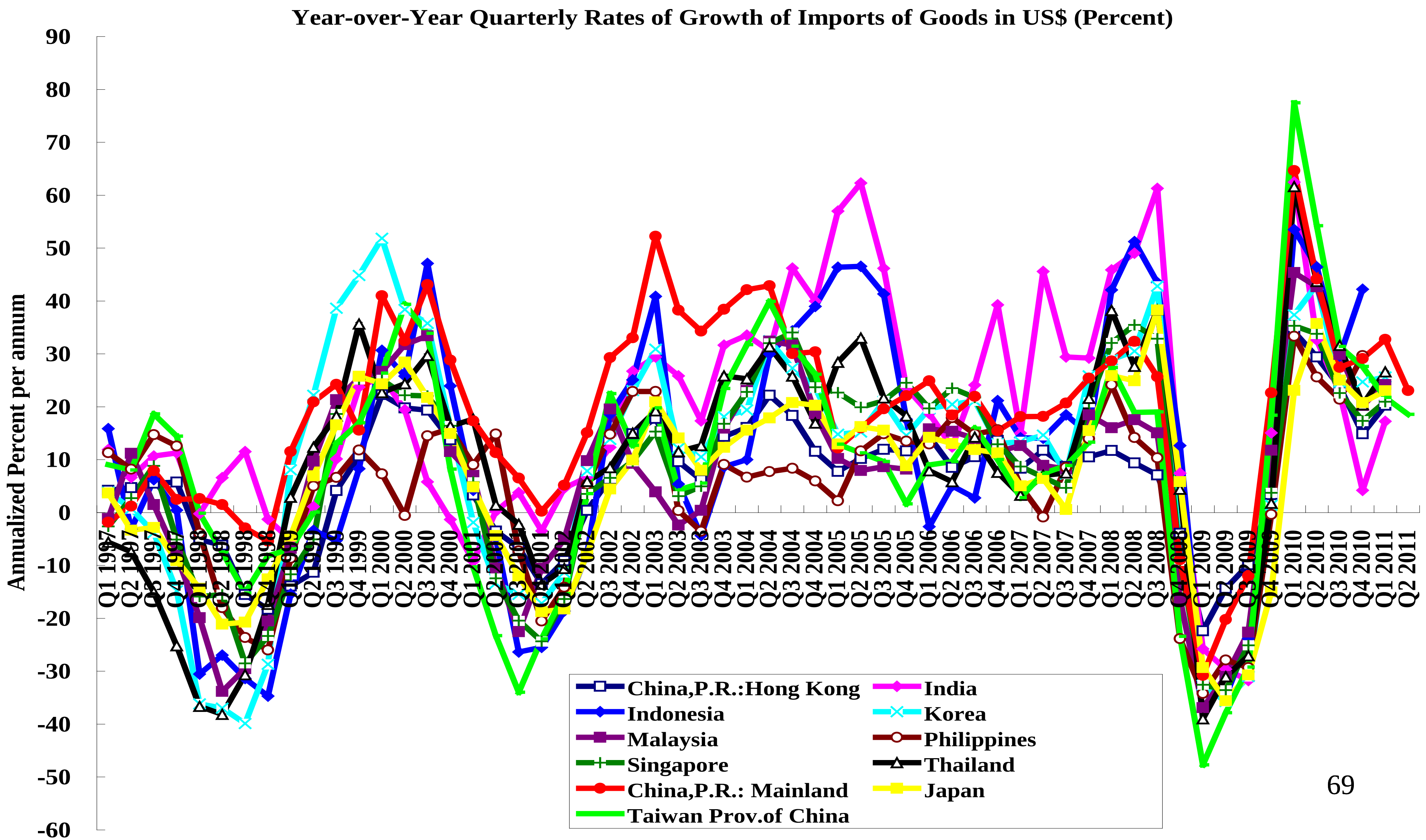
From Export-Oriented to Domestic Demand-Oriented

- An important implication of the relatively low export dependence of Chinese GDP is that the rate of growth of Chinese real GDP is relatively stable, unlike those of other East Asian economies, even as Chinese exports and imports fluctuate as widely as the exports and imports of other East Asian economies. (see the following charts on the rates of growth of exports, imports and real GDP of East Asian economies).
- In addition, China is a large, continental economy like the United States that is relatively self-sufficient and is therefore relatively insulated from disturbances in the rest of the World.

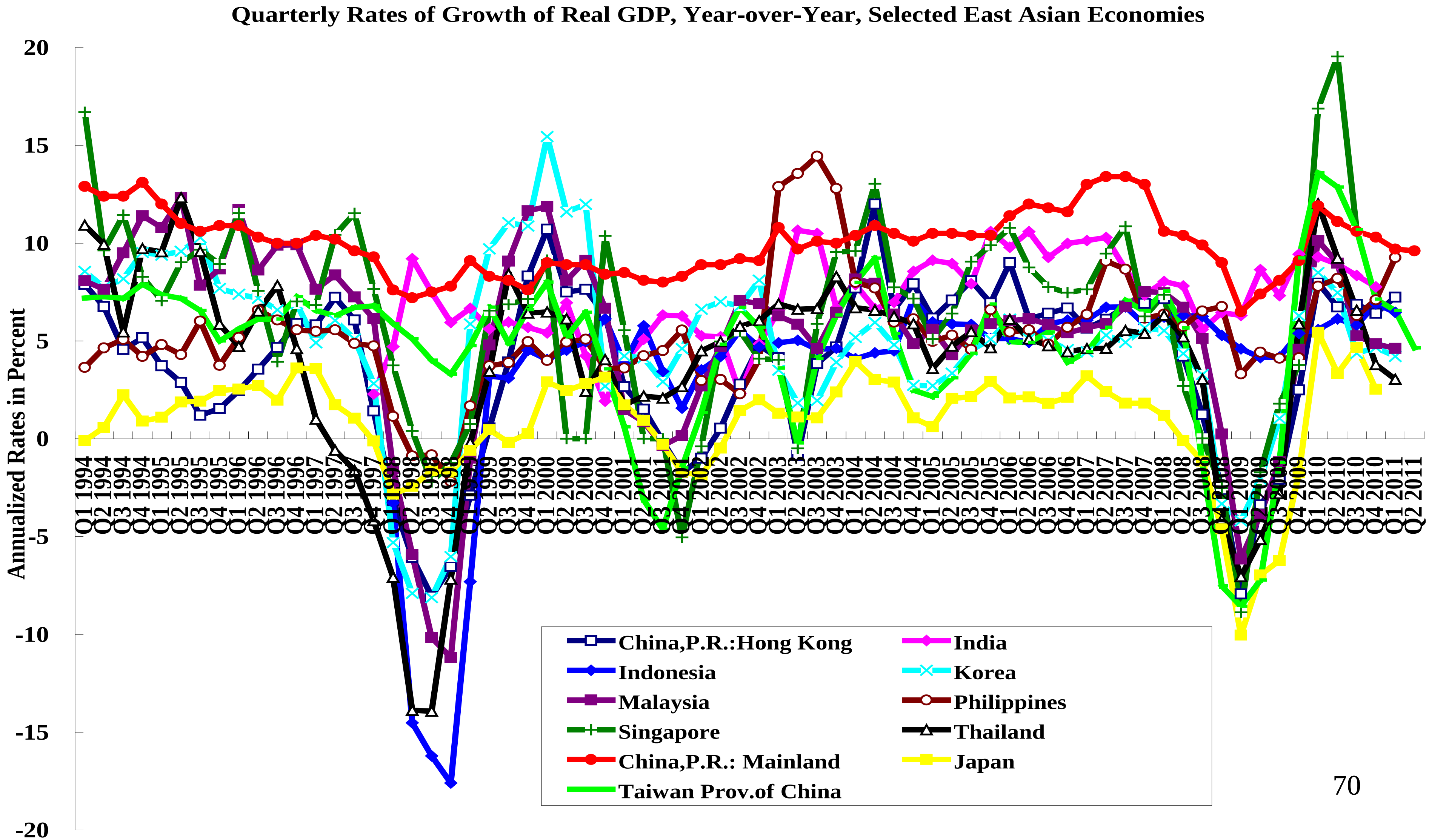
Quarterly Rates of Growth of Exports of Goods: Selected East Asian Economies



Quarterly Rates of Growth of Imports of Goods: Selected East Asian Economies



Quarterly Rates of Growth of Real GDP, Y-o-Y: Selected East Asian Economies



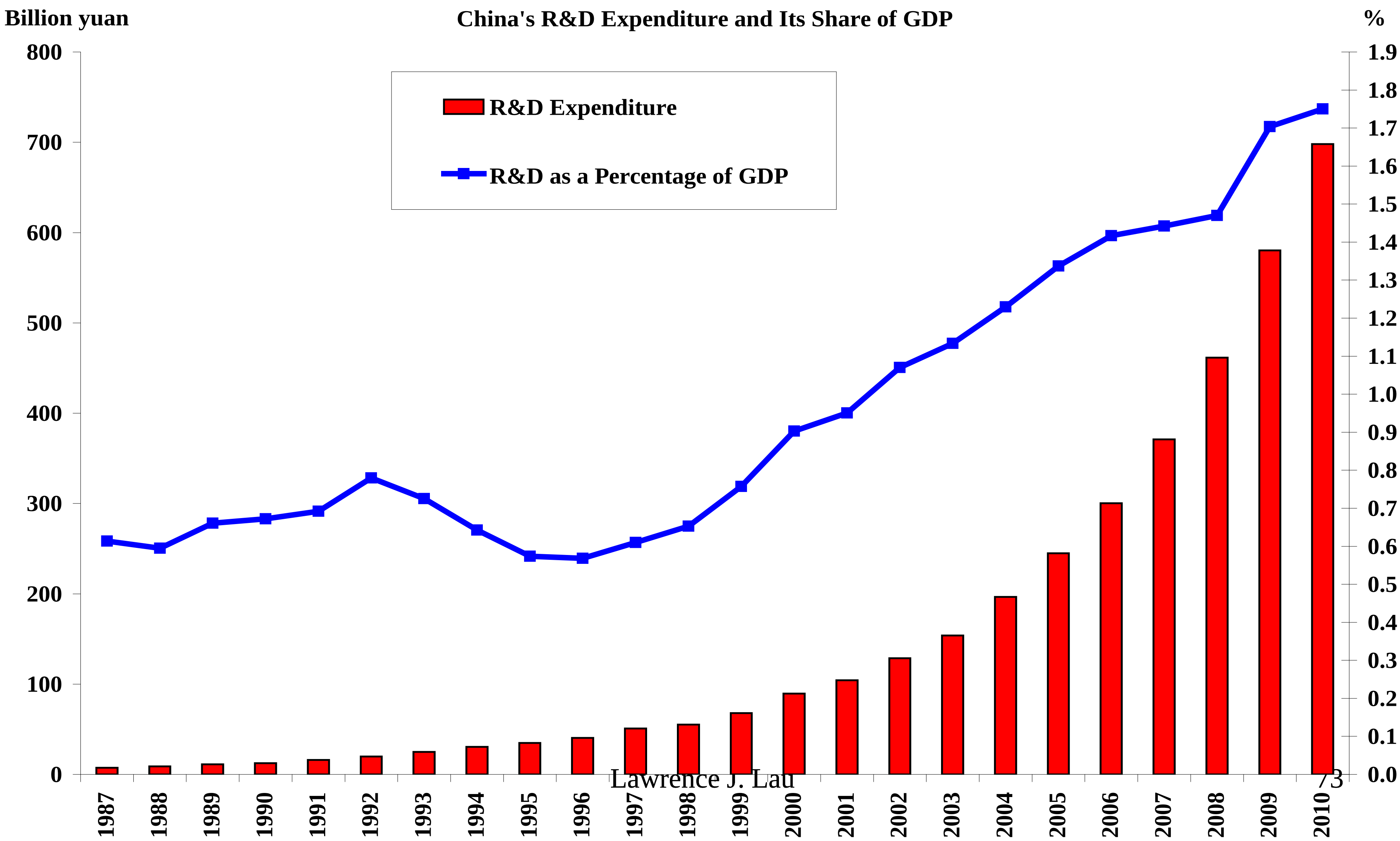
From Export-Oriented to Domestic Demand-Oriented

- The fact that the Chinese economy has continued to grow at an average rate of approximately 10% per annum since the beginning of the global financial crisis in 2007 is further proof that the Chinese economy has been at least partially de-coupled from the rest of the World economy, and in particular, from the United States and Europe, both of which have been mired in economic recession and recovering very slowly.

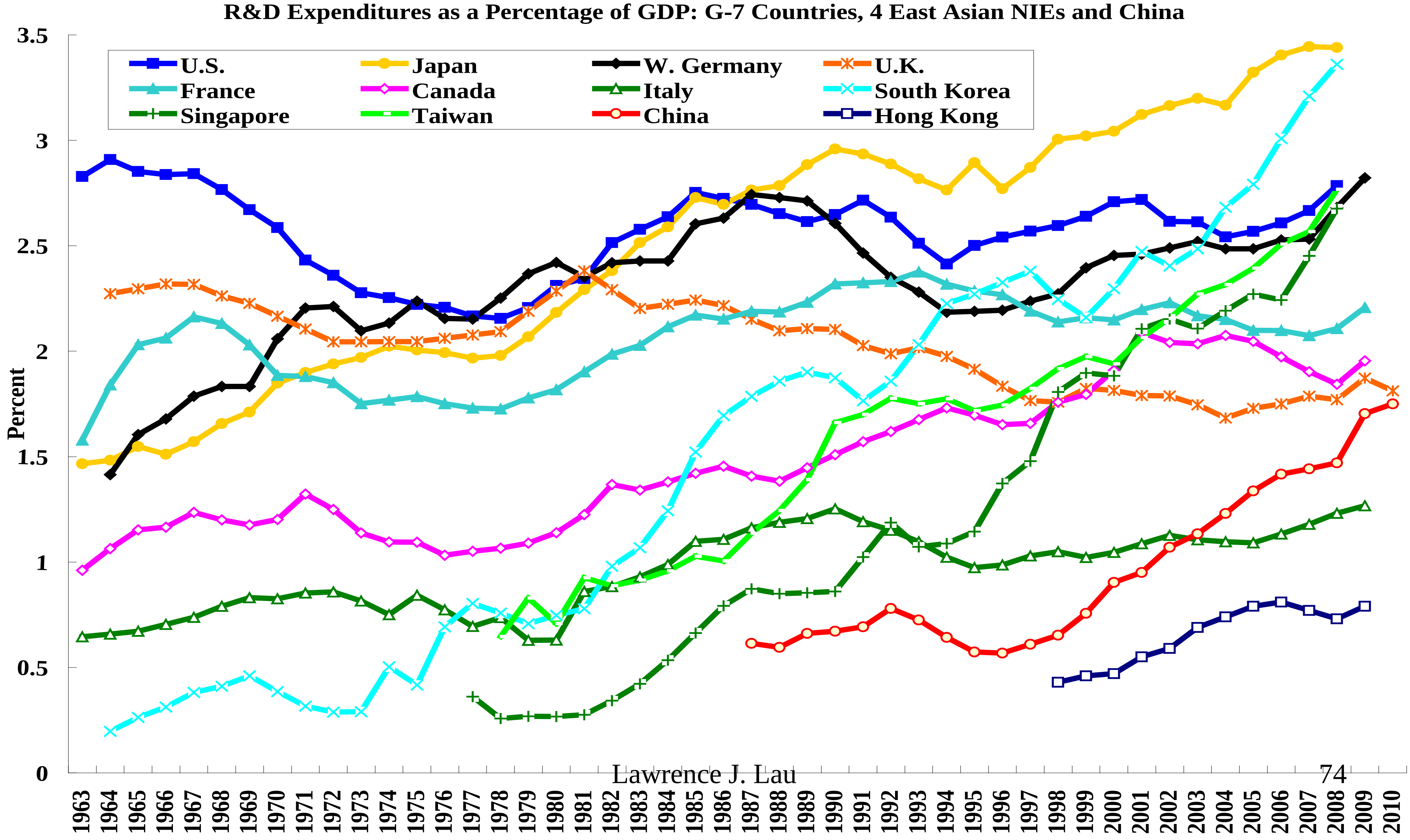
From Input-Driven to Technical Progress-Driven

- Sustained investment in R&D is essential for technical progress in an economy. China has also begun to invest heavily in R&D in recent years--R&D expenditure has been rising rapidly, both in absolute value, and as a percentage of GDP, but still lags behind the developed economies as well as the newly industrialised economies of East Asia.
- The Chinese R&D Expenditure/GDP ratio is targeted to reach 2.2% in 2015, still below the historical average for the U.S.
- By comparison, both Japan and South Korea invest more than 3% of their GDPs in R&D annually. The United States has on average invested approximately 2.5% of its GDP in R&D since the late 1950s.

China's R&D Expenditure and Its Share of Chinese GDP



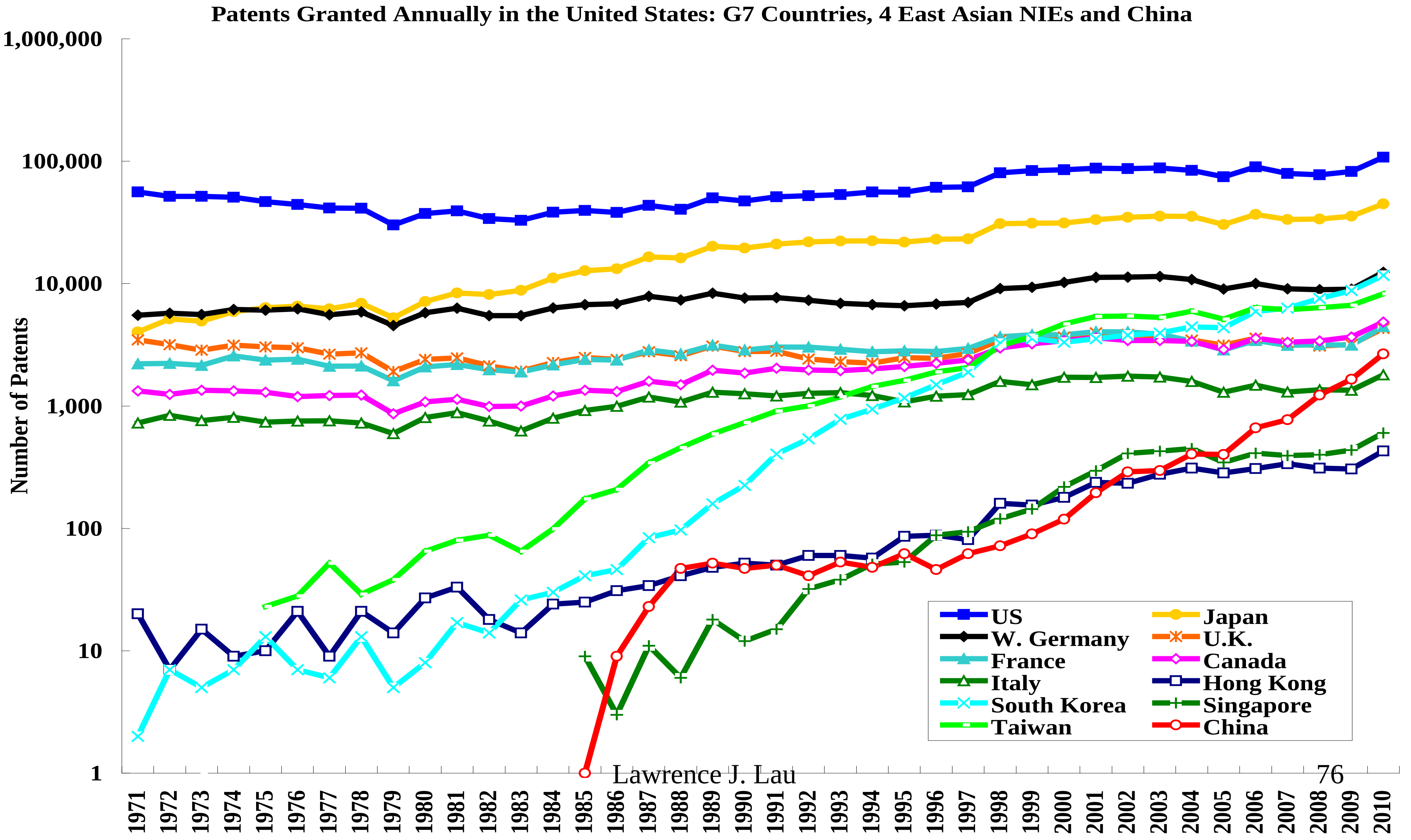
R&D Expenditures as a Ratio of GDP: G-7 Countries, 4 East Asian NIES & China



From Input-Driven to Technical Progress-Driven

- One indicator of the potential for technical progress (national innovative capacity) is the number of patents created each year. In the following chart, the number of patents granted in the United States each year to the nationals of different countries, including the U.S. itself, over time is presented.
- The U.S. is the undisputed champion over the past forty years, with more than 100,000 patents granted in 2010, followed by Japan, with approximately 45,000.
- Since these are patents granted in the U.S., the U.S. may have a home advantage; however, for all the other countries, the comparison across them should be fair.

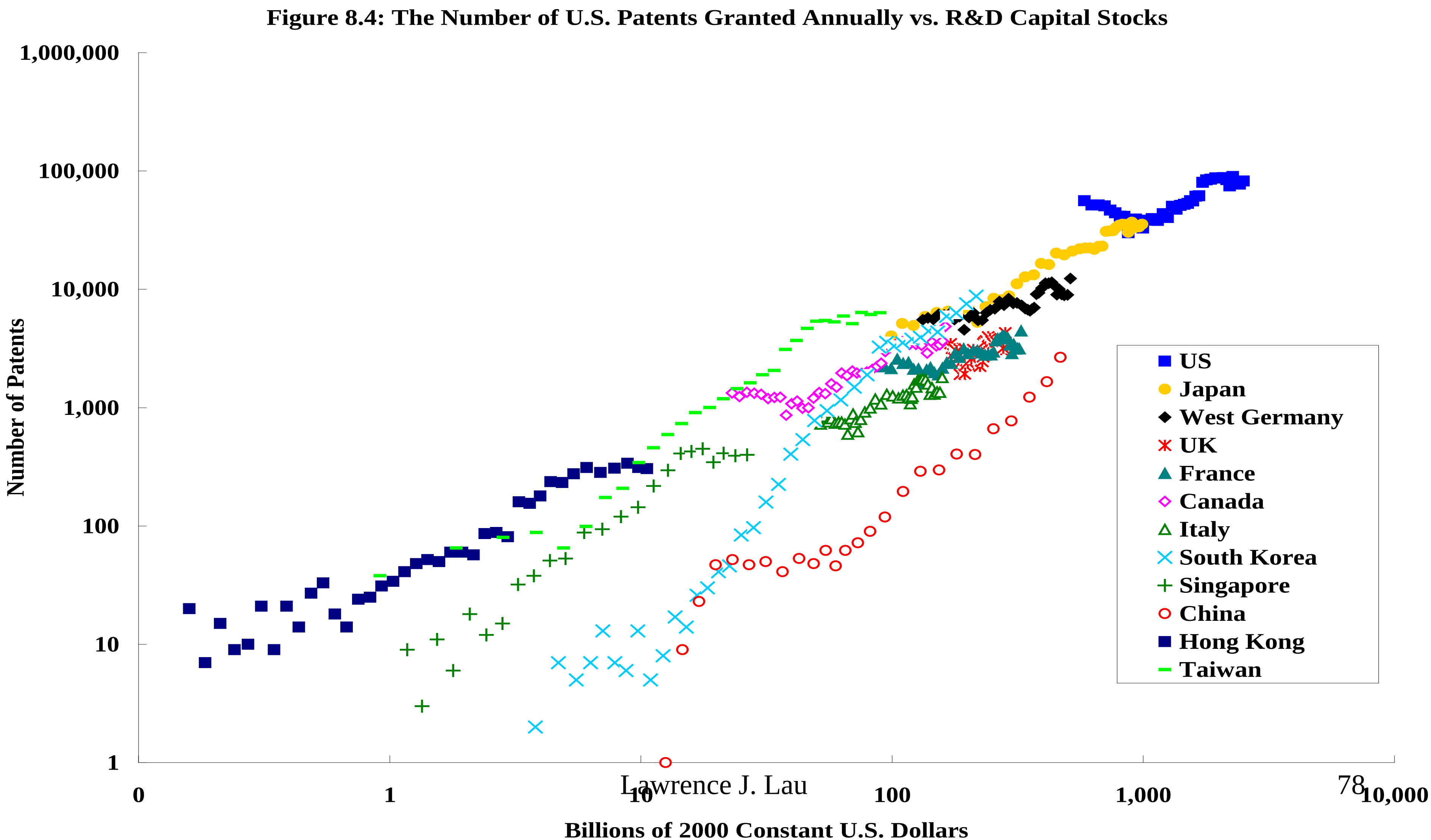
Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs & China



From Input-Driven to Technical Progress-Driven

- The number of patents granted to Chinese applicants each year has increased from 1 in 1985 to 2,657 patents in 2010.
- South Korea and Taiwan are still ahead of China in terms of the number of patents granted in the U.S., with 11,671 and 8,238 patents in 2010 respectively.
- The stock of R&D capital, defined as the cumulative past real expenditure on R&D less depreciation of 10% per year, can be shown to have a direct causal relationship to the number of patents granted (see the following chart, in which the number of patents granted is plotted against the R&D capital stock for each country and each year).

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



The Internationalisation of the Renminbi

- 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.

The Internationalisation of the Renminbi

- The willingness to accept and to hold a non-local currency depends on whether the currency is convertible, but it does not need to be fully or freely convertible, in the sense of a total absence of capital controls on the part of the non-local currency-issuing country.
- A person or a 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.

The Internationalisation of the Renminbi

- Thus, even though the Renminbi is not de jure fully or freely convertible, it has gradually become de facto convertible in some economies in East Asia because of its wide general voluntary acceptance. The Renminbi is today widely accepted and used in Hong Kong, Macau, Laos, Myanmar, and other border areas as a medium of exchange and a store of value even though it is not legal tender in these places.

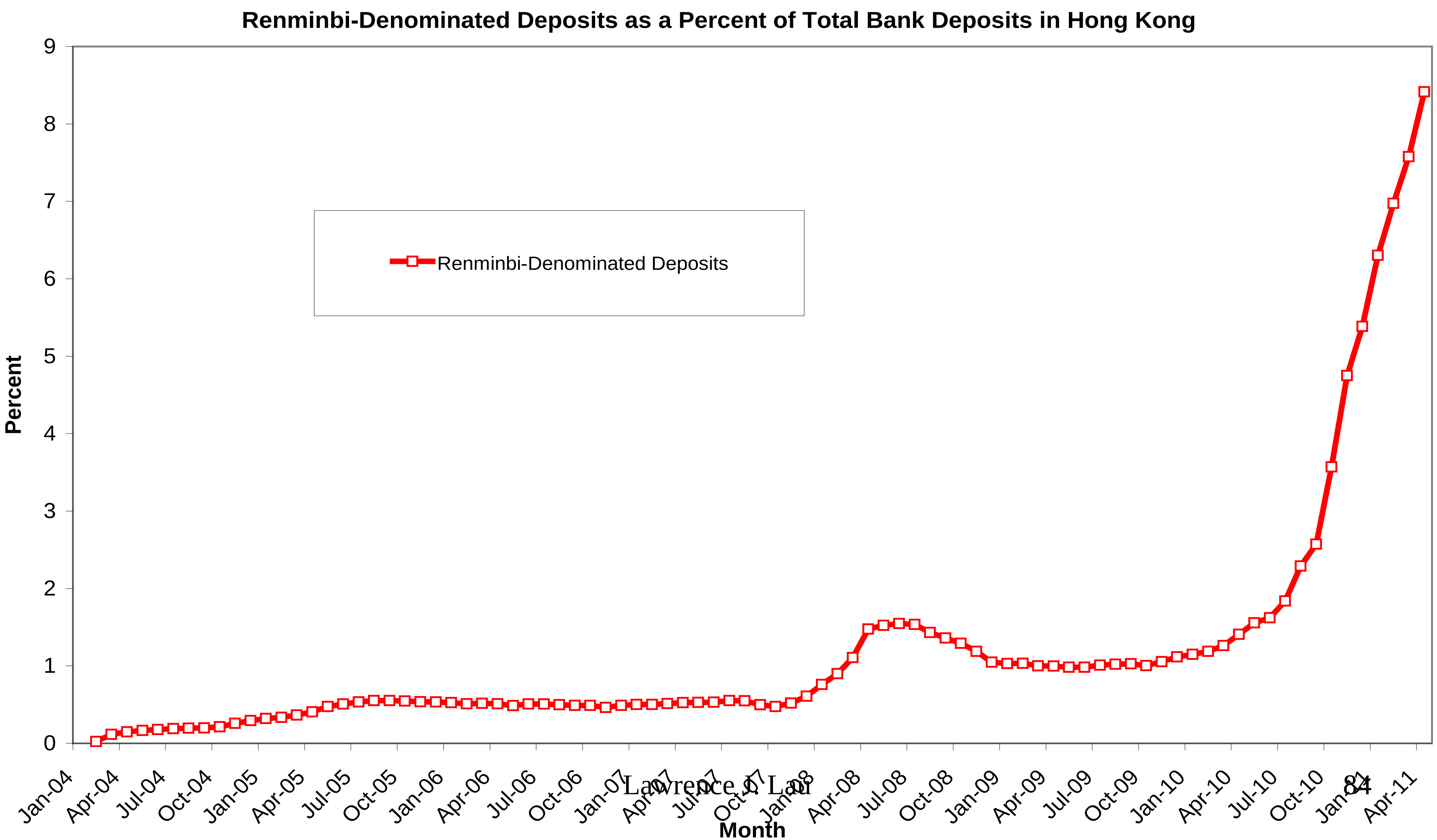
The Internationalisation of the Renminbi

- Similarly, whether a currency can be used in the denomination and settlement of international trade and capital transactions depends on its acceptability to the parties of the transactions. It will be acceptable if there are other ready potential users of the currency.
- Thus, for example, an overseas exporter to China may be quite willing to accept Renminbi as payment as long as it knows that importers of Chinese goods and services in its country can use the Renminbi balances to pay for the imports.
- A non-local currency will be even more acceptable if the central bank issuing the currency is committed to its redemption or exchange into other "hard" currencies such as the U.S.$, Euro or Yen, inflation-index bonds, or even gold with other central banks through prior agreements.

The Internationalisation of the Renminbi

- Thus, the elimination of all forms of capital controls is not necessary for the Renminbi to be used as a medium of exchange in cross-border transactions.
- It is therefore possible for there to be wide general acceptance of a non-local currency even in the absence of its full convertibility.
- For example, in Hong Kong, Renminbi bank deposits held by Hong Kong residents (including firms) have grown rapidly in the past couple of years to almost 9% of total bank deposits in all currencies, attesting to the willingness of Hong Kong residents to accept and to hold the Renminbi (see the following Chart).

Renminbi Deposits as a Percent of Total Bank Deposits in Hong Kong



The Renminbi as a Trade Settlement Currency

- Chinese exporters and importers in selected provinces, municipalities and regions have been permitted to settle their international trade transactions in Renminbi in Hong Kong since 2009 on a voluntary basis, by mutual agreement between the exporter and the importer in each case. The practice will have been extended to the whole of Mainland China by the end of 2011.
- Settlement in Renminbi is welcomed by both exporters and importers because it reduces transactions costs. For example, an importer on the Mainland can pay an exporter in Thailand directly in Renminbi, without having to convert it into U.S. Dollars first and hence also without having to assume any exchange rate risk. While it is true that a Thai exporter may have to convert the Renminbi into Thai Baht, but there is only one currency conversion, from Renminbi to Baht, instead of two currency conversions, first from Renminbi to US$ and then from US$ to Baht.

The Renminbi as a Trade Settlement Currency

- Moreover, the Thai exporter may prefer to denominate its exports to China and settle in Renminbi, because the Renminbi is expected to appreciate relative to the US$ over time.
- Similarly, an exporter on the Mainland may prefer to denominate and settle in Renminbi because it reduces both transactions costs and exchange rate risk.
- Approximately 35% of Chinese international trade is conducted with East Asian economies. Potentially, the Renminbi can be used as a settlement currency by Chinese exporters and importers with their trading partners in East Asia on a voluntary basis.

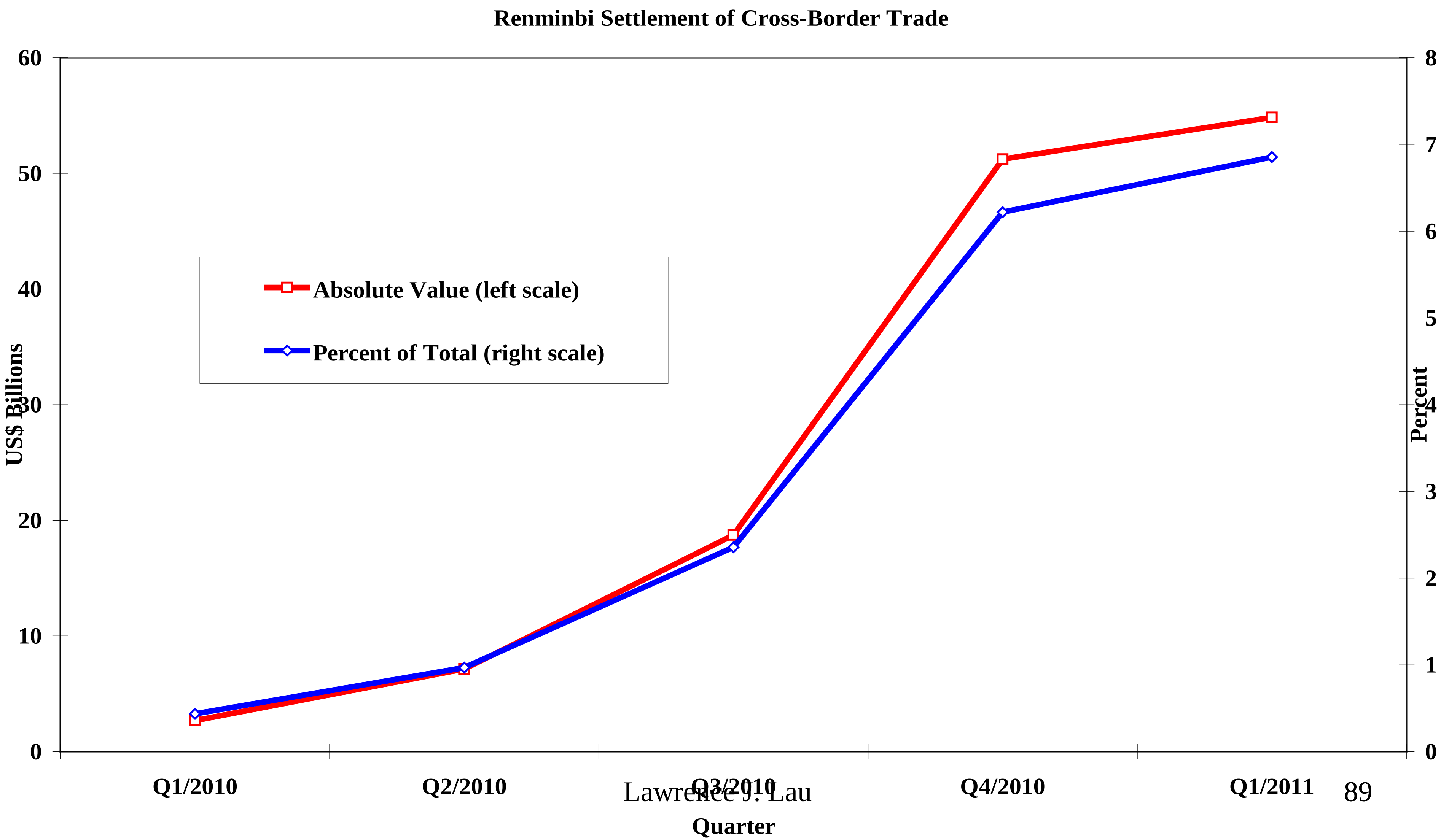
The Renminbi as a Trade Settlement Currency

- Chinese imports from East Asia except Japan amount to US$300 billion a year. If these imports alone can be settled in Renminbi, the requirement of foreign exchange reserves at the People's Bank of China, especially U.S. Dollars, for transaction purposes can be significantly reduced, and the People's Bank of China, China's Central Bank, will no longer need to hold as much foreign exchange reserves as it does now.
- Similarly, Chinese exports to East Asia except Japan amount to more than US$300 billion a year. To the extent that the importers in these East Asian economies can obtain Renminbi (for example, from their exporters), they may also be able and willing to pay for their imports from China in Renminbi.
- If this happens, the US$ assets held in the foreign exchange reserves of their central banks for transactions purposes can also be reduced.
- For comparison, approximately 20% of Japanese imports and 35% of Japanese exports are denominated and settled in Japanese Yen.

The Renminbi as a Trade Settlement Currency

- The proportion of Mainland Chinese international trade settled in Renminbi has grown rapidly from 2.5% for 2010 as a whole to 7% as of the end of the first quarter of 2011 (see the following Chart). This proportion is expected to increase further in the future, especially as a bureaucratic problem having to do with tax rebates for exports that in effect prevented some Chinese exporters from accepting Renminbi for payment has been resolved.

Renminbi Settlement of Cross-Border Chinese International Trade



The Renminbi as a Trade Settlement Currency

- Thus far, trade settlement in Renminbi is predominantly for Chinese imports, accounting for approximately 90%. In order for Renminbi settlement to be more widely used by Chinese exporters, overseas importers must be able to have access to Renminbi themselves. This will take some time but as exporters to China in these economies are paid in Renminbi, their Renminbi balances will in principle be available for the importers.
- Moreover, it can be anticipated that Chinese exporters will eventually offer two prices—one in Renminbi and one in U.S. Dollars (which would take into account the expected appreciation of the Renminbi) for overseas importers to choose so as to minimise their exchange rate risks.

The Renminbi as a Trade Settlement Currency

- Currently, the cost of hedging against exchange rate fluctuations of the Renminbi is high and can only be done in the non-deliverable-forward market and only for relative short durations.
- This is another reason why even though it is now possible for the settlement of Chinese trade transactions in Renminbi, only a relatively small proportion of Chinese trade is denominated and settled in Renminbi.
- The use of the Renminbi as a trade settlement currency may be facilitated by an offshore forward market for Renminbi established by or under the authority of the People's Bank of China (China's central bank) with participation restricted to bona fide exporters and importers to and from China.

The Renminbi as a Trade Settlement Currency

- Moreover, if other East Asian economies, such as Hong Kong, Indonesia, South Korea, Malaysia and Thailand, also begin to use either their own currencies or 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.

The Renminbi as a Trade Settlement Currency

- It is likely that the Renminbi will eventually be used for the settlement of cross-border transactions among East Asian economies because almost all of them have trade surpluses vis-à-vis Mainland China and hence will have ample supplies of Renminbi to settle trade transactions among themselves if they so choose.
- However, if trade settlement in Renminbi becomes a widespread practice among East Asian economies, it will also increase the demands of these central banks for Renminbi-denominated assets to be held as part of their foreign exchange reserves.

The Renminbi as a Trade Settlement Currency

- It is expected that the use of the Renminbi for the denomination and settlement of international trade and capital transactions in East Asia will gradually become very common, to the point that it may cover almost all of Chinese international trade within East Asia with the possible exception of Japan. This trade alone amounts to more than US$600 billion each year, with most of it currently denominated in U.S. Dollars.
- Chinese international trade with the United States and Europe, with oil exporting countries in the Middle East, and with India and Russia, may probably continue to be denominated mostly in either the U.S. Dollar or the Euro.
- Chinese international trade with Africa and Latin America may well be partially denominated in Renminbi especially Africa as China becomes the major source of development aid and loans to Africa.

Renminbi as a Major International Reserve Currency

- The benefit to the issuing country of a major international reserve currency is in the seigneurage. The issuing country can pay for its imports by printing money (or what amounts to more or less the same thing, bonds). The country receiving the money and/or bonds puts them into its foreign exchange reserves and continues to hold them as assets. So the issuing country is able to acquire real goods of real value with essentially pieces of paper which it can print at will—a great bargain.
- Reserves are normally accumulated and held in the receiving country for a long time, to the benefit of the issuing country. It is only when the receiving country decides to spend the money to buy goods and services from the issuing country or elsewhere that the issuing country has to export real goods and services to the receiving country in exchange.

Renminbi as a Major International Reserve Currency

- The "cost" to the issuing country is that in order to benefit from seigneurage, it must in general run a trade deficit or become a net long-term purchaser of foreign assets. (If it has a chronic trade surplus, it does not need to print money (or bonds) to pay for its imports and other countries will have a hard time acquiring its currency.) And the larger the trade deficit, the larger the benefit. However, a country with mercantilist tendencies does not like to run trade deficits and hence may not want its currency to become a major reserve currency.

Renminbi as a Major International Reserve Currency

- A currency can be fully convertible without becoming a major international reserve currency, that is, without being widely held by central banks in significant amounts. For example, the Hong Kong Dollar and the Singapore Dollar are both fully convertible, but are not major international reserve currencies, in part because of lack of demand by other central banks; and the Japanese Yen is not a major international reserve currency because of the lack of willingness on the part of Japan to supply large quantities of Japanese Yen to the rest of the World.

Renminbi as a Major International Reserve Currency

- A further “cost” is the possibility that as a currency becomes widely held by the central banks of other countries as part of their foreign exchange reserves, it is subject to the risk that the foreign central banks holding its currency and assets denominated in its currency may decide at some point, for economic as well as non-economic reasons, to stop holding this currency and sell all the assets denominated in this currency that they hold, potentially creating havoc to the exchange rate of the currency, the interest rate and the financial markets of the country issuing the currency.
- Of course, if the issuing country is “too big to fail,” as in the case of the United States, it is another matter altogether. The central banks in the World cannot afford to liquidate their U.S.$-denominated assets without incurring significant damages to themselves.

Renminbi as a Major International Reserve Currency

- Whether the Renminbi will eventually become a major international reserve currency remains to be seen, as there are both costs and benefits for a country's currency to be used by other countries as a major international reserve currency.
- The Japanese Yen is fully convertible but the Japanese Government has not promoted its use by other countries as a major international reserve currency. Japan is unwilling to entertain the possibility of a persistent and large trade deficit. It is also not willing to assume the risk of the other central banks of East Asia potentially dumping its bonds on the market because of political considerations.
- At the present time, Hong Kong, Singapore and South Korea have all been considering investing part of their foreign exchange reserves in Yuan-denominated securities to diversify its portfolio, even though the Yuan (Renminbi) is not yet fully convertible.

The U.S. and European Debt Crises

- The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor
- The European Debt Crisis

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

- First of all, the downgrade definitely does not mean that the U.S. is more likely to default on its sovereign debt after the downgrading compared to before. In fact, the probability of a U.S. default was higher before the U.S. Congress raised the debt ceiling limit than afterwards and before the downgrading. The downgrade in and of itself therefore has little new information content—it conveys nothing new that we do not know already but it creates unnecessary and irrational panic.

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

- Credit ratings should not be taken too seriously anyway—If the credit rating agencies are really good at discriminating among the creditworthiness of debt securities a priori, they should be out there managing large investment portfolios and earning large fees rather than rating. No one should be overly concerned by a marginal down-grade issued by a credit-rating agency with a questionable track record of both over-rating (for example, sub-prime mortgage-loan backed securities and Icelandic banks) and under-rating (Chinese sovereign debt) in the recent past, except asset managers who are restricted to purchase and to hold only debt securities of certain ratings.

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

- The probability of a U.S. default of its sovereign debt remains close to nil, notwithstanding the credit rating downgrade. Thus, there is no need to panic and rush out to sell U.S. Government debt securities.
- The downgrade itself may have some psychological impact on consumers and investors but should have little lasting effect on the real economy.

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

- Second, in the short-term, with or without the downgrade, the U.S. Federal Reserve Board will do its best to keep the short-term interest rate low in the U.S. However, in the medium and long term, it is probably inevitable that the rate of interest will rise in the U.S., and that the foreign holdings of U.S. sovereign debt will begin to decline, albeit gradually. This may, however, be coupled with an increased domestic U.S. holdings of U.S. debt, as the result of a flight to safety (from equities).
- But the fact remains that there are very few alternatives to U.S. sovereign debt at the moment and that a massive sell-off of U.S. sovereign debt by foreign central banks is definitely not in their own interests, so that it is most unlikely to occur. The U.S. is "too big to fail," and too big a debtor to be allowed to fail.

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

- Third, the real threat to the U.S. economy is the possibility of stagflation. It is for this reason that I believe the U.S. Government should not focus solely on the reduction of the U.S. Government deficit, important that it is, at this time. The primary goal of the U.S. Government should be to restore economic growth and reduce unemployment as soon as possible.
- If the economic pie can be made bigger, deficit reduction will be made that much easier. What the U.S. Government needs to do is to try to change the expectations of U.S. households and firms about the future of the U.S. economy, and this it can do only through an unanticipated exogenous increase in real aggregate demand, with monetary policy having exhausted its effectiveness.

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

- Unfortunately, additional fiscal stimulus at the Federal level at this time appears unlikely, giving the inclinations of the U.S. Congress. What the Federal Reserve Board may wish to consider doing, instead of buying U.S. Treasury securities, is to buy long-term (possibly zero-coupon) state bonds, for example, in proportion to each state's population, with the requirement that the proceeds must be used for new infrastructural projects within each of the states. This will increase both real aggregate demand (and hence real GDP) and employment rather quickly and help to change expectations about the future in a positive direction.

The Downgrade of U.S. Sovereign Debt Credit Rating by Standard and Poor

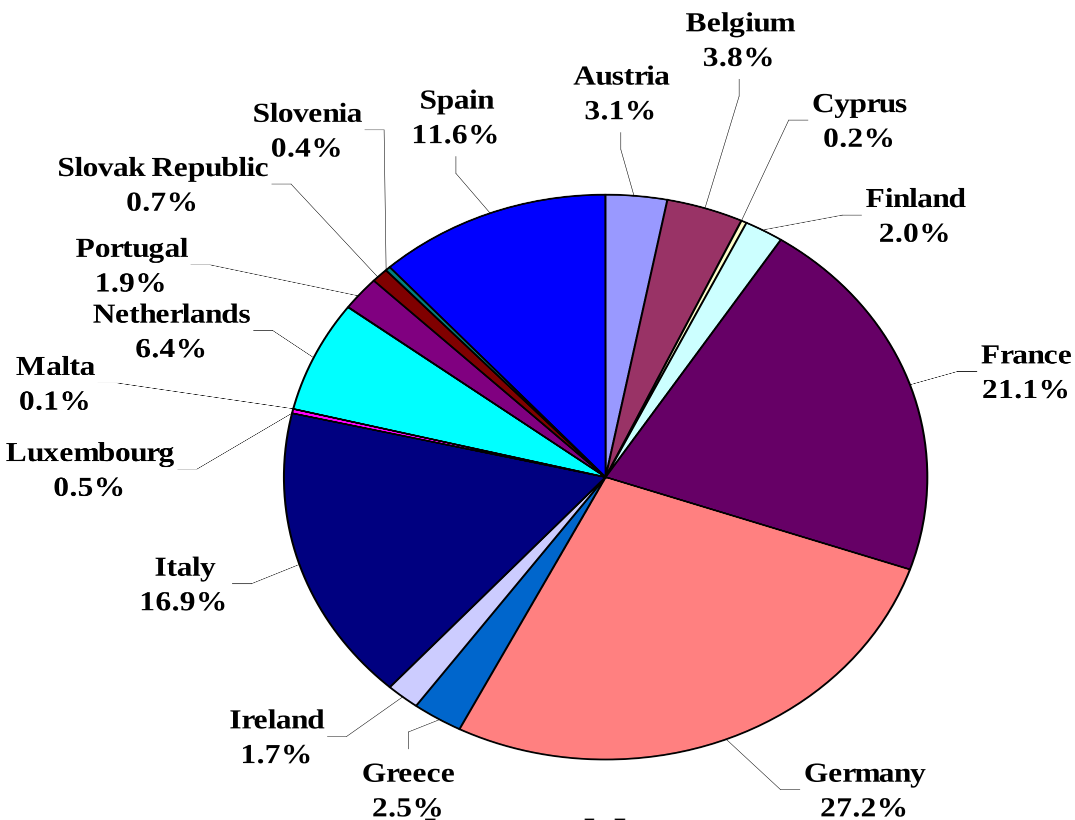
- Fourth, the downgrade may actually have the unintended but, in my opinion, beneficial effect of cooling down the speculative fervour in the World financial markets today. The less bubbly the World is, the better it is for the real economy. Softening of commodity prices, including the price of oil, should be regarded as a positive development for the World economy.

The European Debt Crisis

- First, it is important to put the European debt crisis in perspective. Greece accounts for only 2.5% of the GDP of the Euro Zone.
- Of the other so-called PIGS countries (Portugal, 1.9%; Ireland,1.7%; Spain, 11.6%), only Spain has a sufficiently large share of the Euro Zone GDP to matter.
- While some countries have relatively large public debt to GDP ratios, they are, with the exception of Greece, mostly internal debt, which is much more easily manageable.
- Germany and France, the two major countries in the Euro Zone, remain economically healthy and stable despite the 2007-2009 global financial crisis.

The Distribution of the GDP of Euro Zone in 2009

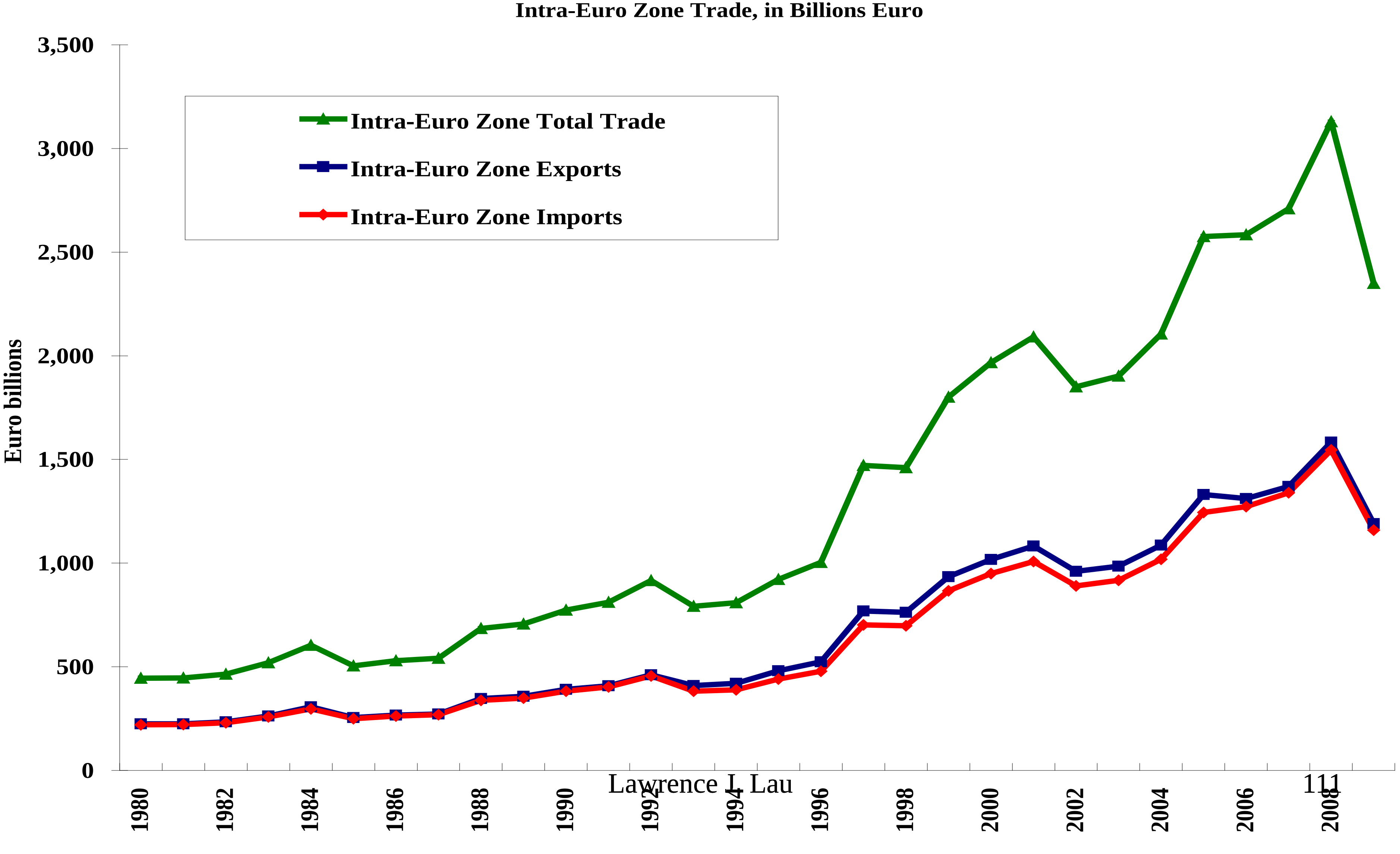
The Distribution of the GDP of Euro Zone in 2010, in Euro billions



The European Debt Crisis

- After the introduction of the Euro as a single currency for countries in the Euro Zone in the late 1990s, intra-Euro Zone trade tripled to approximately 3 trillion Euro (or US$4 trillion) even though there had been no tariffs among the major countries in the Euro Zone since the 1960s.
- The single currency has greatly facilitated trade and direct investment within the Euro Zone and enhanced economic efficiency.

Intra-Euro Zone Trade, Billions Euro, Pre-and Post the Introduction of the Euro



The European Debt Crisis

- In helping to save Greece from default, the major European countries are in fact also saving their own banks, which are major holders of Greek sovereign debt.
- Germany has been running large trade surpluses vis-à-vis other countries within the Euro Zone and hence has a self-interest in seeing that the other countries remain economically stable.
- The consequences of a collapse of the Euro are unthinkable and that is why it will not be allowed to happen as long as Germany and France have the ability to maintain the status quo.

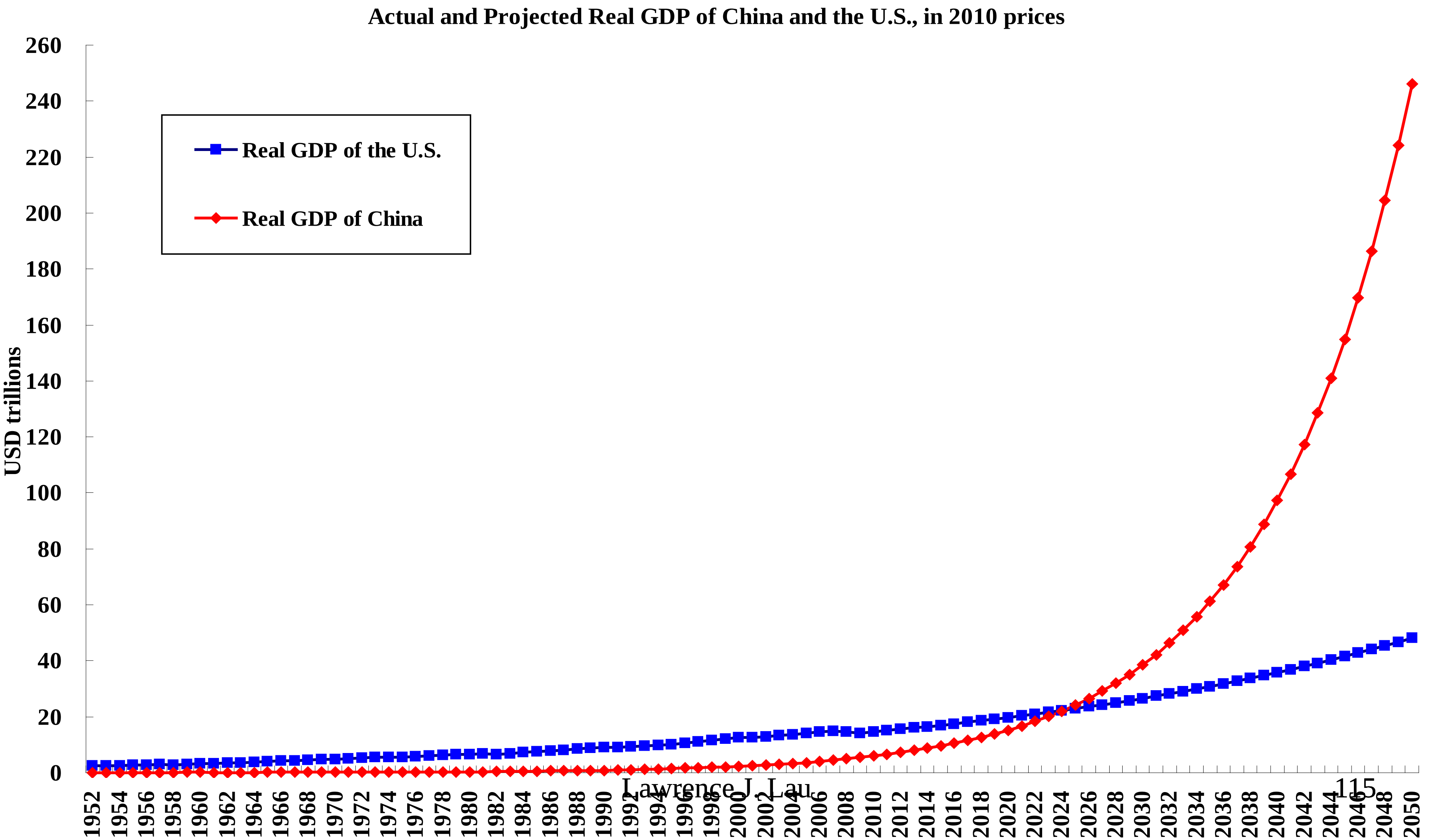
Projections of the Future

- By 2015, according to the Twelfth Five-Year Plan, Chinese real GDP will reach 55.8 trillion Yuan or US$8.6 trillion (2010 prices). Chinese per capita real GDP will reach 40,000 Yuan or approximately US$6,200.

Projections of the Future

- If current trends continue, Chinese real GDP will approach the level of U.S. real GDP in approximately 15 years' time--around 2025, at which time Chinese real GDP will exceed US$20 trillion (in 2010 prices) and Chinese real GDP per capita will exceed US$ 14,000.
- By that time, 2025, China and the U.S. will each account for approximately 15% of World GDP.

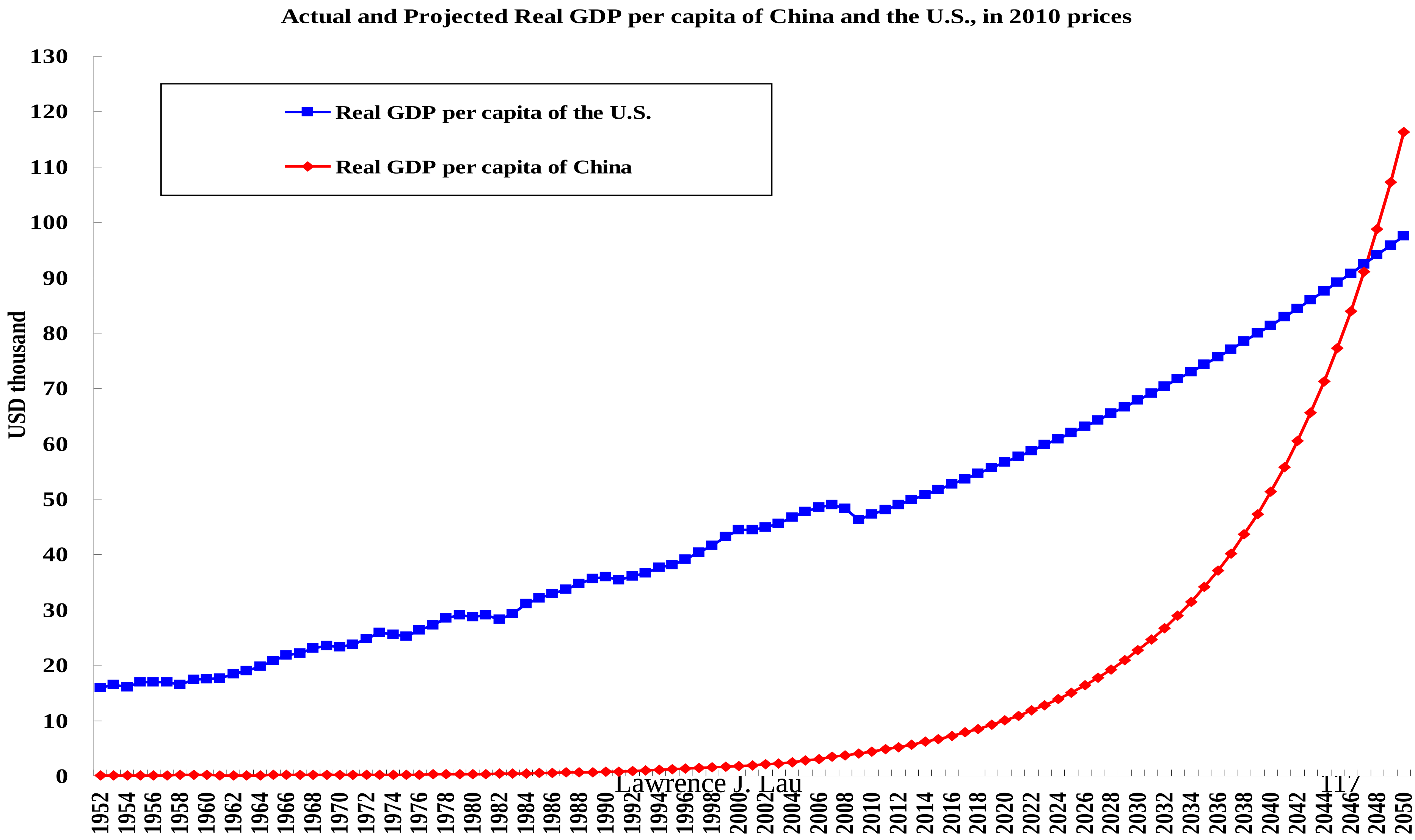
Actual and Projected Real GDP of China and the U.S., in 2010 prices



Projections of the Future

- It will take another 20-25 years, between 2045 and 2050, before China reaches the same level of real GDP per capita as the United States, at US$90,000 in 2010 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 Chinese population will reach a peak around 2035 and then begin to decline slowly).
- By that time, Chinese GDP will be approximately 6 times U.S. GDP, and will account for between a third and a half of World GDP (depending on the growth rates of other economies, especially the developing economies of today).

Actual and Projected Real GDP per Capita of China and the U.S., in 2010 prices



Concluding Remarks

- Given its economic fundamentals, the Chinese economy will be able to continue to grow rapidly over the next couple of decades, at an average rate of between 7% and 8% per annum, more or less independently of the rest of the world.
- In the long run, the sources of sustainable Chinese aggregate demand will be internal: household and public consumption, investment in infrastructure (including high-speed inter-urban trains), urbanisation (building new cities including urban mass-transit systems), investment in owner-occupied residential housing, investment in education and health care, energy conservation environmental protection and preservation, and renewable energy.

Concluding Remarks

- Consumption will rise, as GDP per capita and the real wage rate rise and the social safety net is gradually perfected. But the national savings rate will remain high for a long time, which implies that China does not need to depend on foreign investment or foreign loans to finance its continuing economic development and growth.
- Exports as a share of Chinese GDP will probably continue to decline over time, as befitting a large, continental economy like the United States. It is therefore also relatively self-sufficient and hence relatively insulated from disturbances in the rest of the World (with the possible exception of the World oil market).

Concluding Remarks

- Chinese economic growth will be marginally, but not critically, affected by a large decline in its exports, as demonstrated by its experience in the past couple of years as well as during the 1997-1998 East Asian currency crisis. Thus, it will be able to survive even prolonged economic recessions in the European and U.S. economies.
- The Renminbi will be used more and more in the settlement of Chinese international trade with East Asian economies and perhaps even in the settlement of trade among East Asian economies.

Concluding Remarks

- For 2011, the short-term economic targets of the Chinese Government are to achieve a real rate of growth of 8 percent and a rate of inflation of 4 percent. I believe that the GDP target will be exceeded but inflation for the year will probably come in at around 5 percent.