European Union-China Economic Relations in the Next Ten Years

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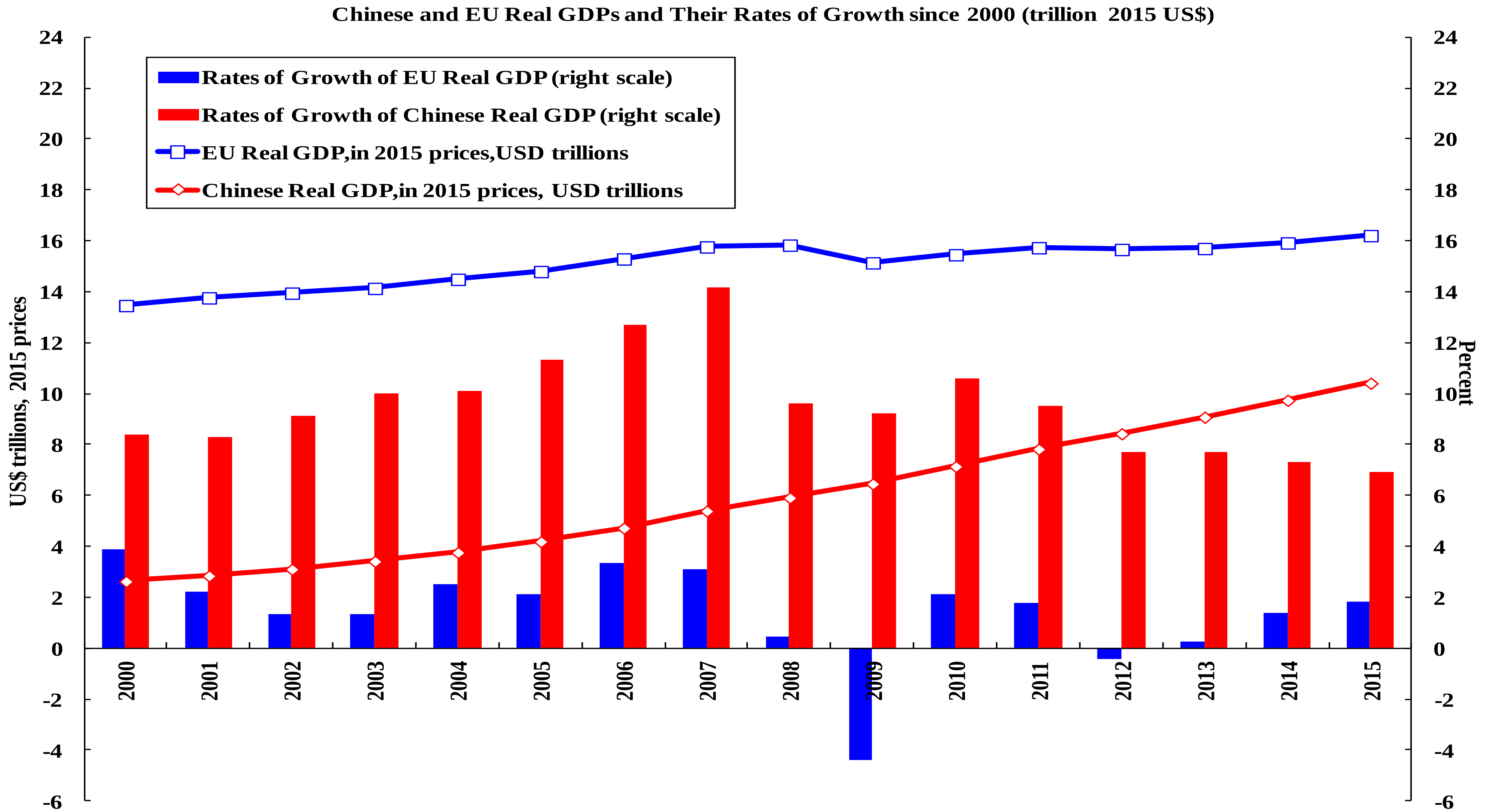
Outline

- Introduction
- Long-Term Prospects of the Chinese Economy
  - Chinese Economic Fundamentals
  - The Transition to a "New Normal"
  - The Questions
    - The Reliability of Chinese Economic Statistics
    - The Stability of the Renminbi Exchange Rate
    - The Volatility of the Stock Market
    - The Excess Capacities in Manufacturing
    - The Chinese Debt Burden
  - Projection of Real GDP to 2030
- Possible Areas of European Union-China Economic Cooperation
  - Bilateral Investment and Cross-Ownership
  - Free Trade Area
  - Exchange Rate Coordination
  - Intellectual Property Protection
  - People-to-People Exchange (Cultural, Educational and Scientific Exchange)
  - Cyber-Security
- Concluding Remarks

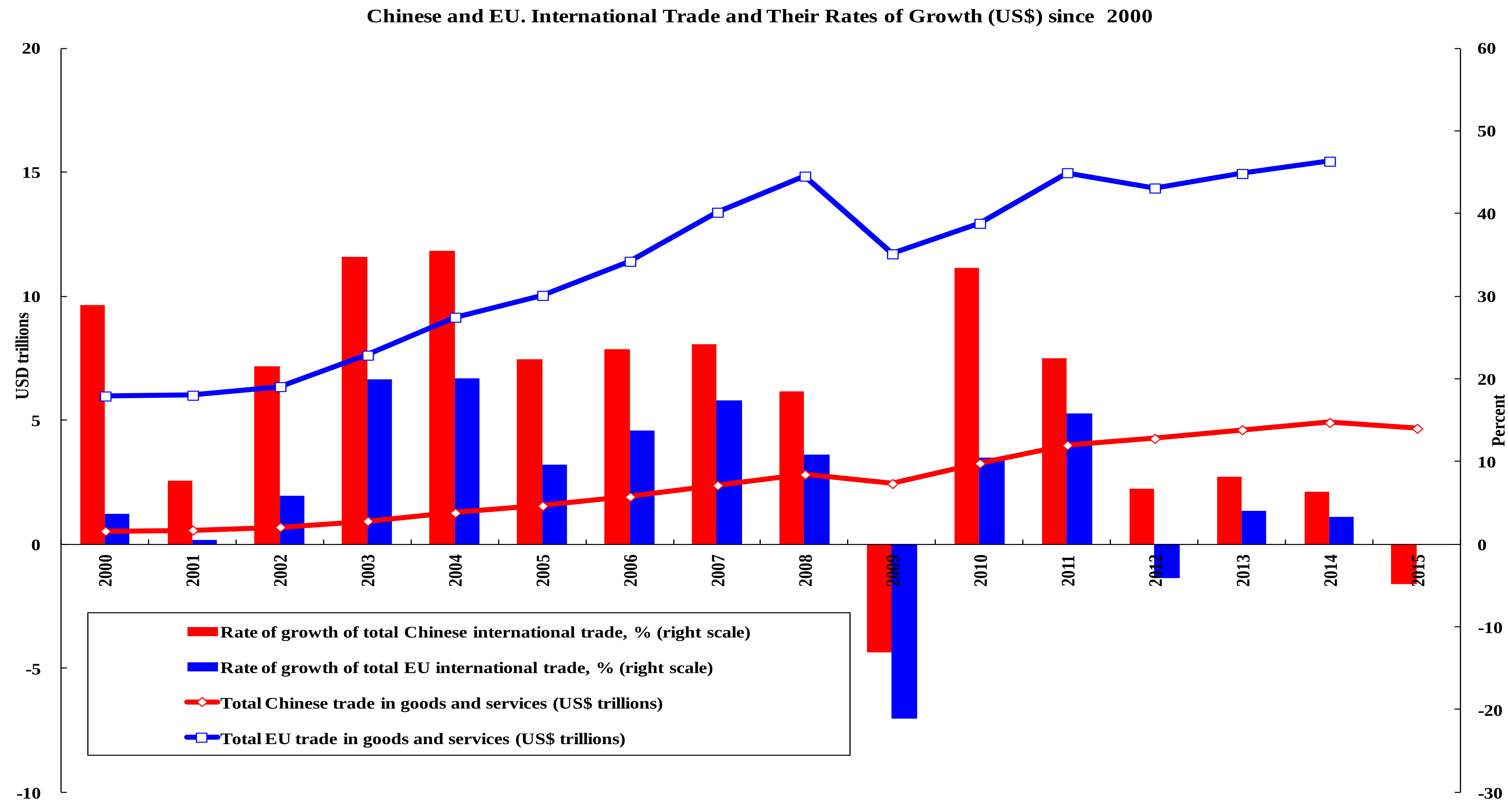
Introduction

- The GDP of the European Union was €14.3 trillion (US$18.5 trillion) in 2014. The U.S. GDP was approximately US$17.4 trillion, a little less than the EU as a whole. The Chinese GDP was only US$10.4 trillion in 2014, still far behind the EU and the U.S.
- The population of the EU was 508 billion in 2015 compared to China's 1.37 trillion.
- GDP per capita of the European Union was approximately US$37,000 in 2014, compared to approximately US$55,000 for the U.S. and approximately US$7,500 for China.
- EU is the largest trading economy in the World, followed by China and the U.S.
- China is the EU's third largest export market, with 8.5%, after the U.S. (16.5%) and Switzerland (9.7%). The EU is China's largest export market, followed by the U.S.
- China is the EU's most important source of imports, with 16.6%, after Russia (12.2%) and the U.S. (11.6%).

Chinese and EU Real GDPs and Their Rates of Growth since 2000 (2015 US$)



The Values of Chinese and EU International Trade and Their Rates of Growth, 2000- (US$)



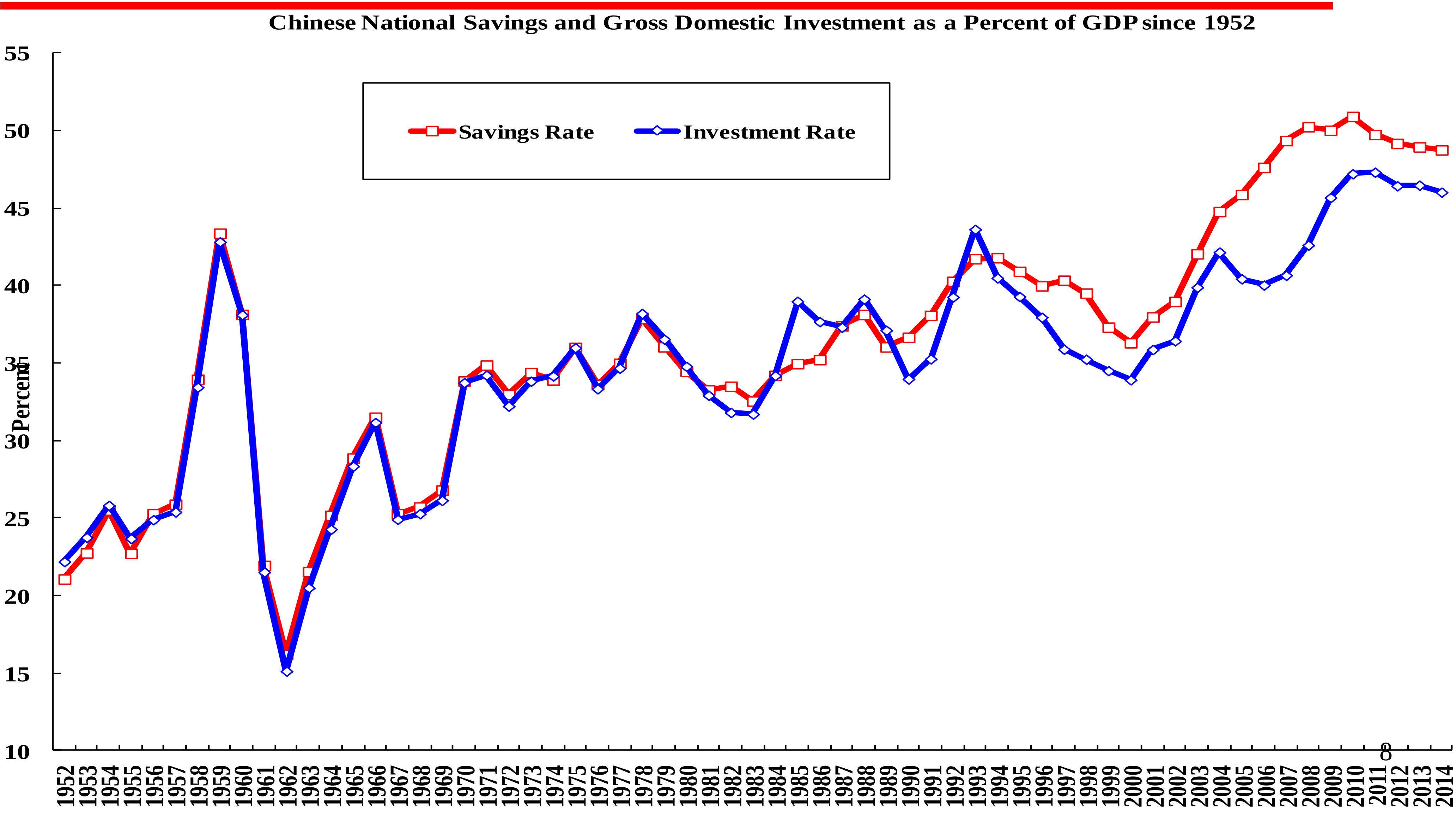
Long-Term Prospects of the Chinese Economy: Economic Fundamentals

- Long-term economic growth of a country depends on the rates of growth of its primary inputs—capital (tangible or physical) and labor—and on technical progress (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 and foreign investment and loans as well as foreign aid.
- The rate of technical progress depends on the cumulative past investment in intangible capital (including human capital and Research and Development (R&D) capital).

Long-Term Prospects of the Chinese Economy: Economic Fundamentals--Capital

- Chinese economic growth since 1978 has been underpinned by a consistently high domestic investment rate, enabled by a national savings rate above 35% except for a brief start-up period in the early 1950s. The Chinese saving rate rose to around 40% in the early 1990s and has at times approached or even exceeded 50% in more recent years.
- The high Chinese saving rate means that the Chinese economy can finance all of its domestic investment needs from its own domestic savings alone, without having to depend on the more fickle foreign capital inflows (including foreign direct investment, foreign portfolio investment, foreign aid, or foreign loans).
- In particular, it does not need to borrow abroad and bear the potential risks of a large, short-term and often interruptible, foreign-currency denominated debt. The Chinese economy is therefore also more immune from external disturbances than other economies.
- Thus, the Chinese economy is assured of a high rate of investment and hence a high rate of growth of its tangible capital stock.

Chinese National Saving and Gross Domestic Investment as Percents of GDP



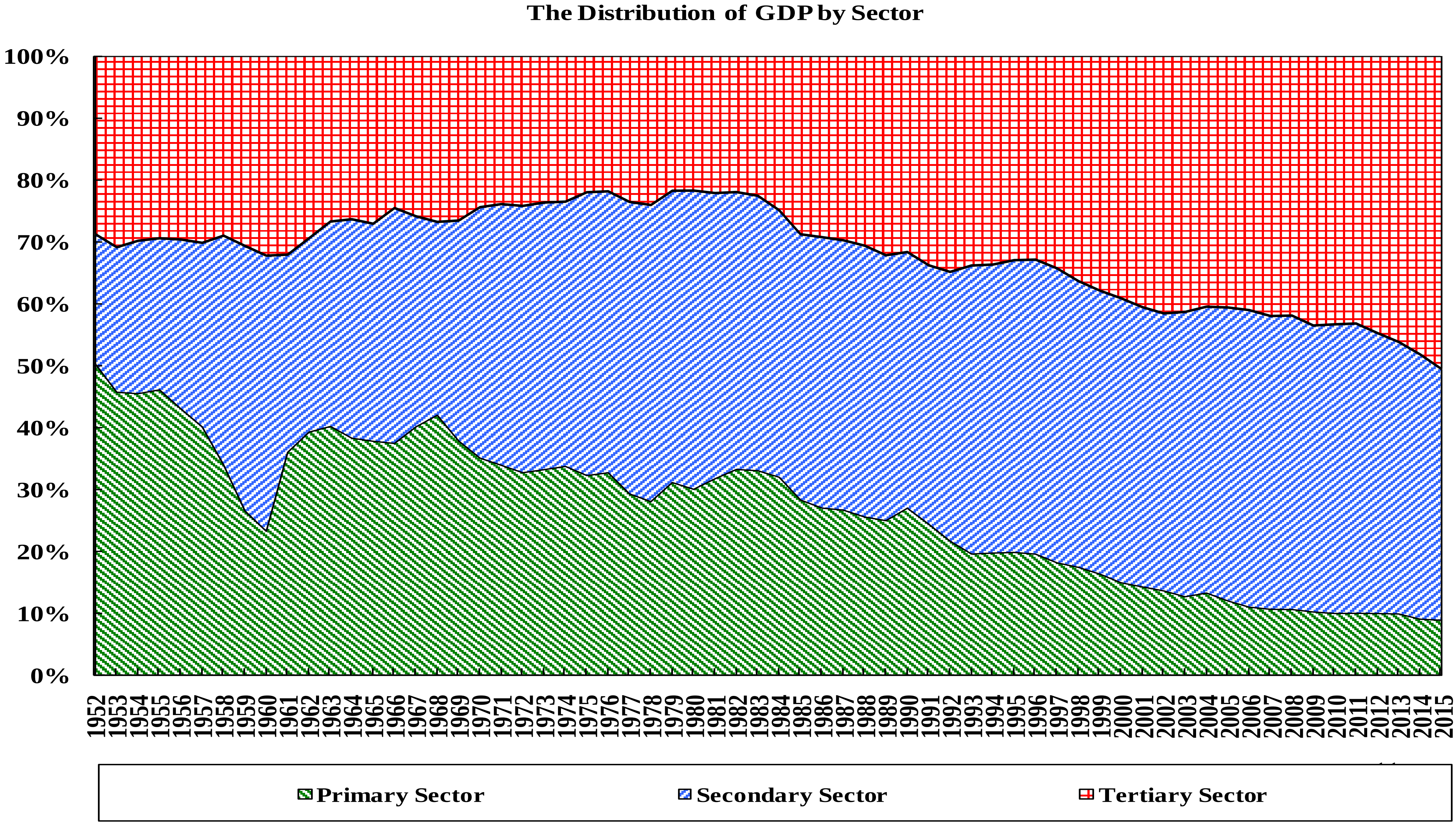
Long-Term Prospects of the Chinese Economy: Economic Fundamentals--Capital

- In addition, since new resources are forthcoming each year from new savings, enabling new investments to be made, the necessity of restructuring, redeploying or privatising existing fixed assets is greatly diminished. Thus, the potentially politically divisive issues such as factory closings and lay-offs of redundant workers and the creation of "losers" can be avoided.
- A high national savings rate also allows the normally more efficient non-state sector greater room and greater scope for development and expansion (there is less "crowding out" by the investment of the government as well as the state-owned firms).
- However, tangible capital input-driven economic growth has its limitations, because as the stock of tangible capital relative to labor increases, the marginal productivity of tangible capital will begin to decline and will eventually reach a point when additional tangible capital is no longer productive. This is a point made by Prof. Paul Krugman in his influential article in Foreign Affairs.

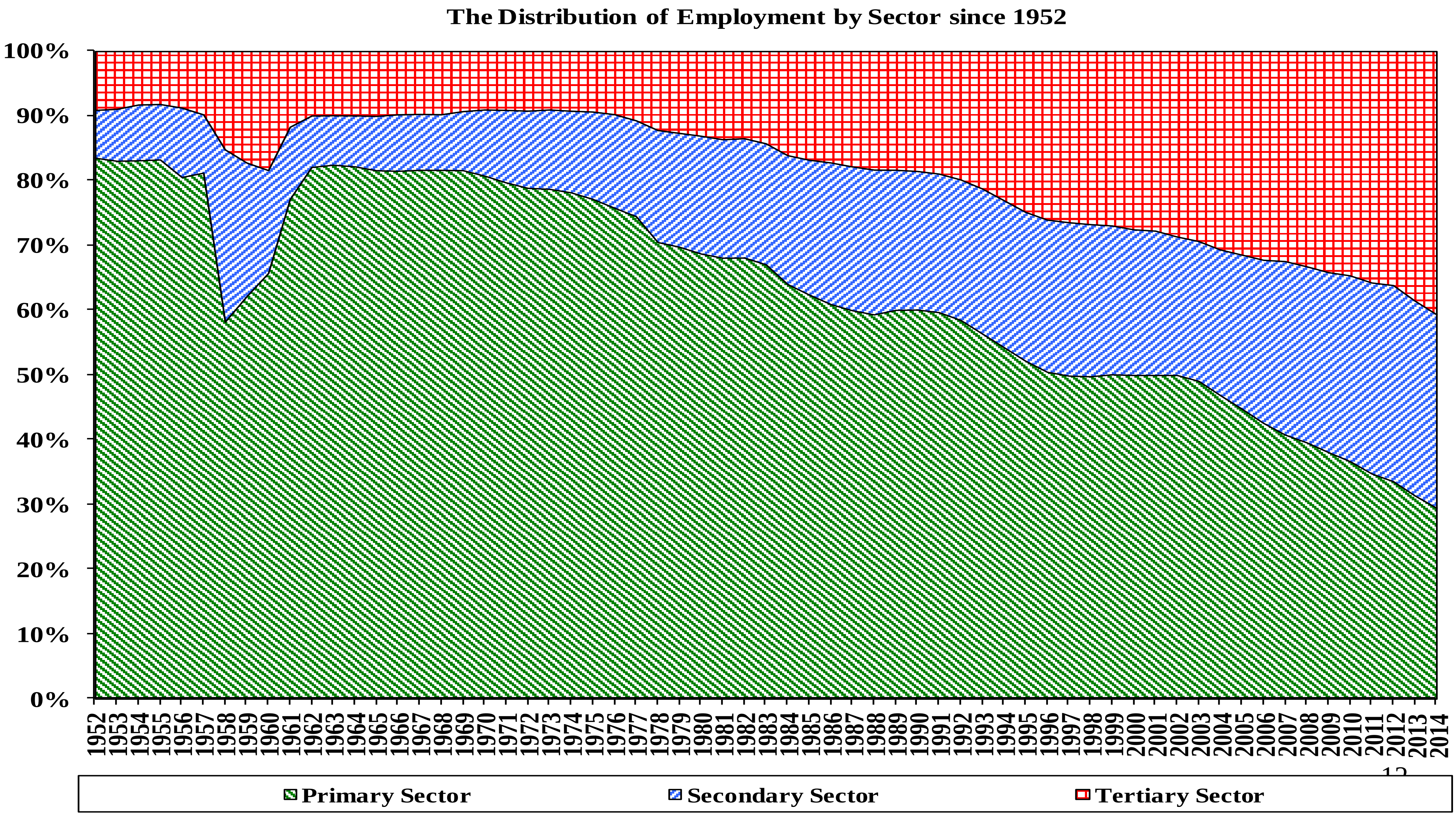
Long-Term Prospects of the Chinese Economy: Economic Fundamentals--Labor

- China, like Japan, Taiwan, and South Korea in their respective early stages of economic development, has an unlimited supply of surplus labor—there is therefore no shortage of and no upward pressure on the real wage rate of unskilled, entry-level labor over an extended period of time.
- The distribution of Chinese GDP by production-originating sectors in 2015 was approximately: Primary (agriculture), 9.0%; Secondary (manufacturing, mining and construction), 40.5%; and Tertiary (services), 50.5%. (Note that mining is normally included in the primary sector in most other economies.)
- The distribution of employment by sector in 2014 was: Primary, 29.5%; Secondary, 29.9%; and Tertiary, 40.6%.
- The agricultural sector employed 29.5% of the Chinese labor force but produced only 9.2% of the Chinese GDP in 2014. Thus labor can be productively transferred to the other two sectors where labor productivities and wage rates are higher as long as complementary capital and demand are available.

The Distribution of Chinese GDP by Sector Since 1952



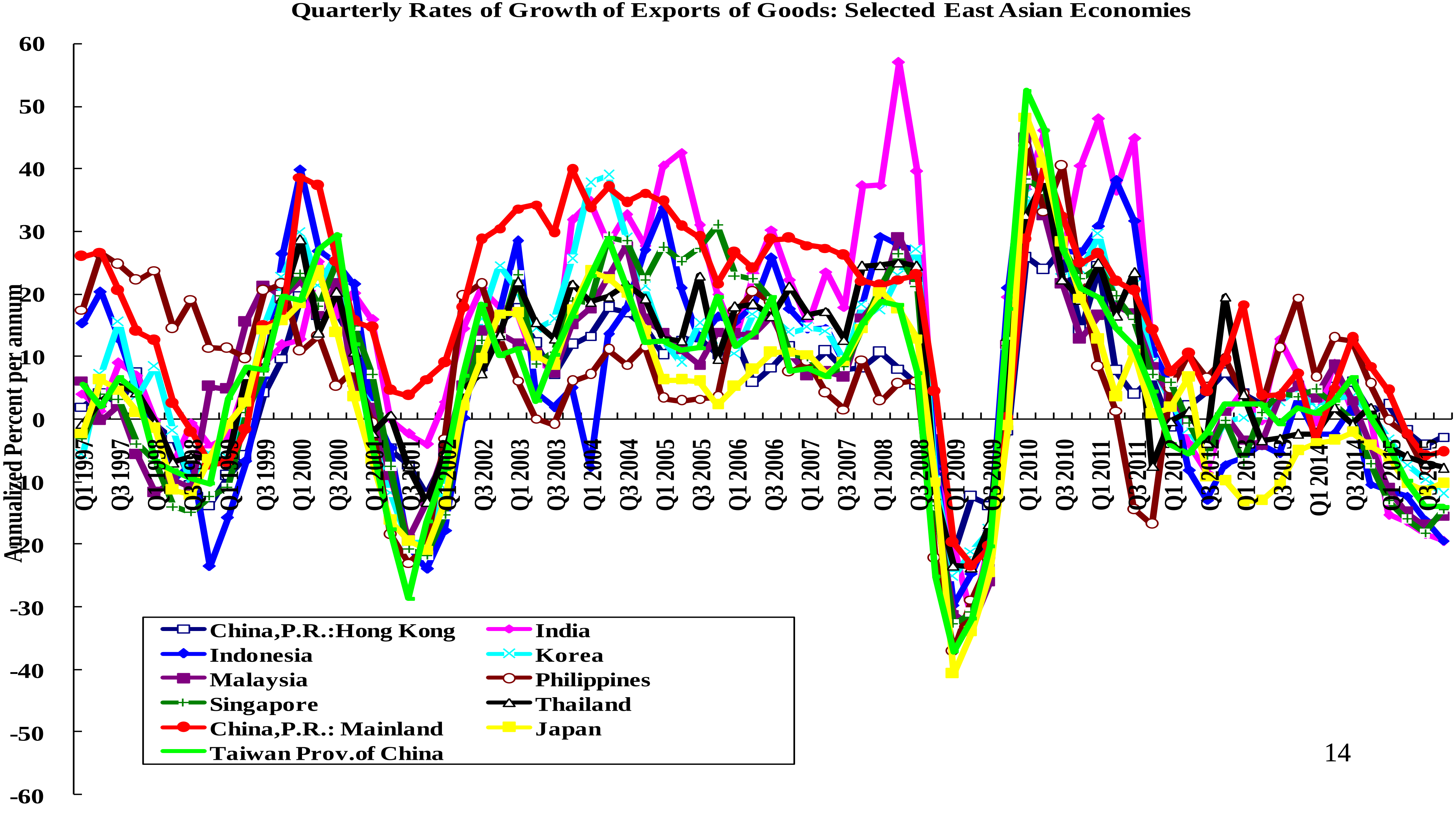
The Distribution of Chinese Employment by Sector Since 1952



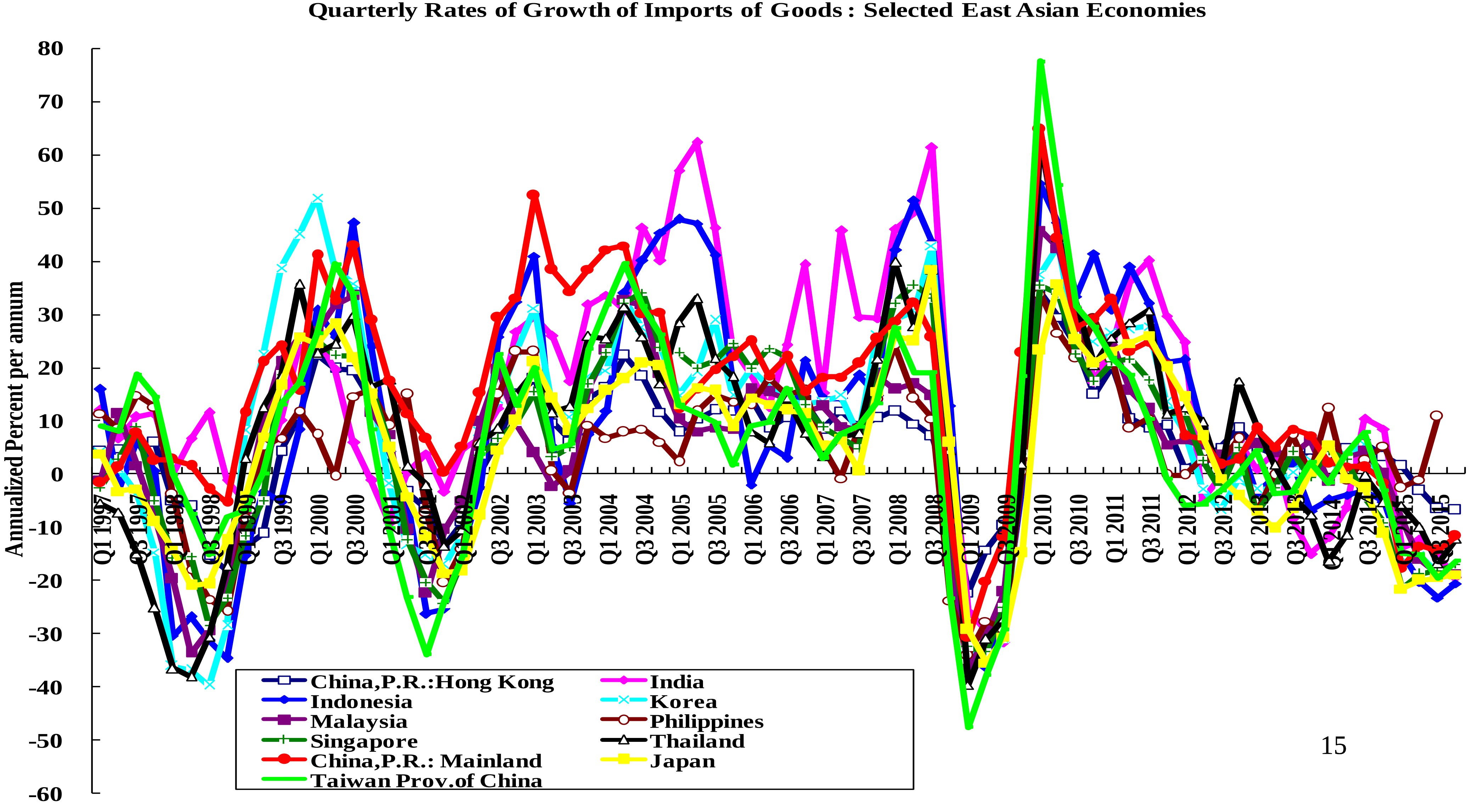
Long-Term Prospects of the Chinese Economy: Economic Fundamentals--Scale Economies

- The huge domestic market of 1.37 billion consumers with pent-up demand for housing and transportation and other consumer goods and services (e.g., education, health care, and more recently, elderly care), enables the realization of significant economies of scale in production in many manufacturing industries, based entirely on the domestic market in China.
- The huge domestic market also greatly enhances the productivity of intangible capital (e.g., R&D capital and goodwill including brand building) by allowing the fixed costs of the R&D for a new product or process or advertising and promotion in brand building to be more easily amortized and recovered.
- Another important implication of the size of the domestic economy is the relatively low external dependence. Thus, while the rates of growth of Chinese exports and imports fluctuate like other economies, the rate of growth of Chinese real GDP has been relatively much more stable. (China is represented by a red line in the following charts.)

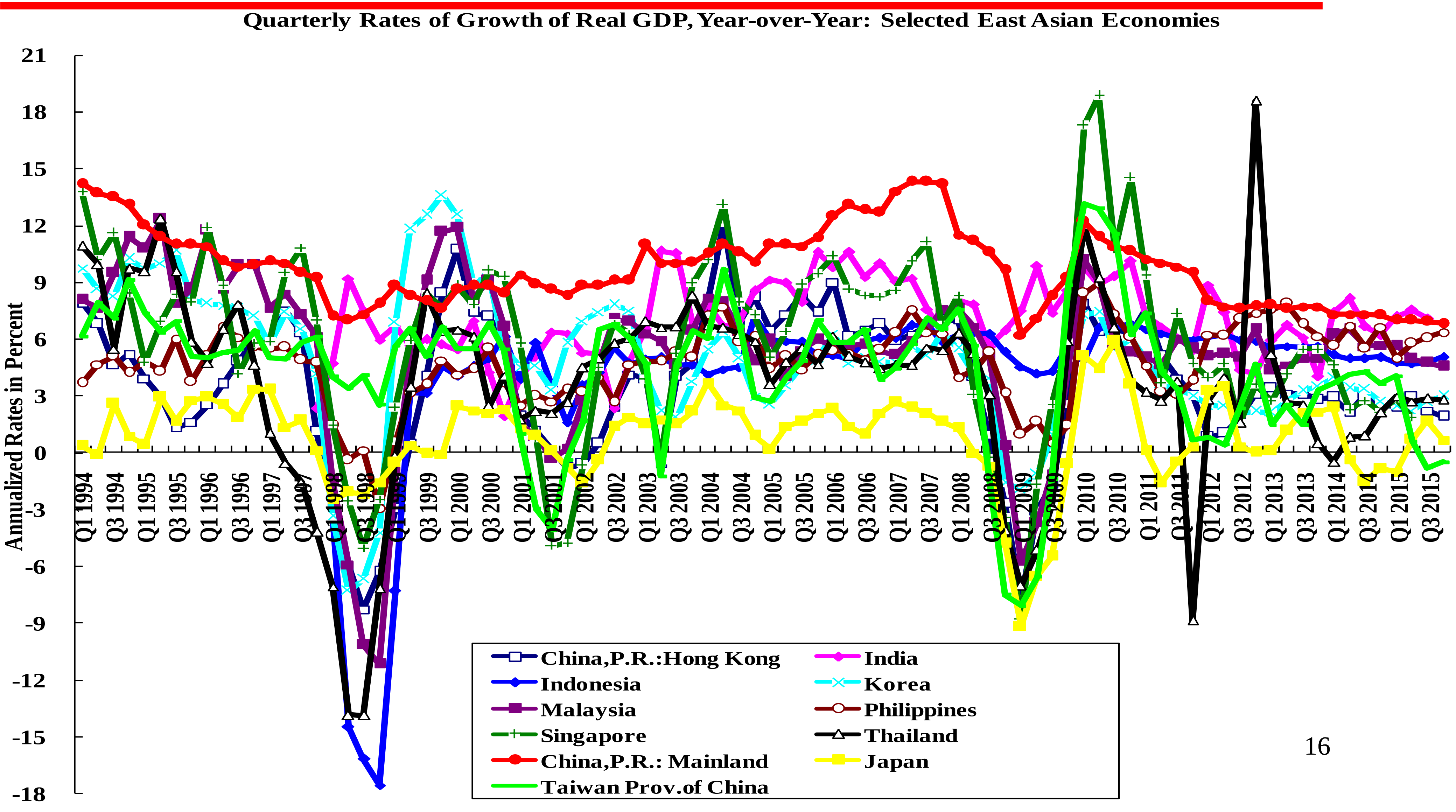
Quarterly Rates of Growth of Exports of Goods: Selected Asian Economies



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



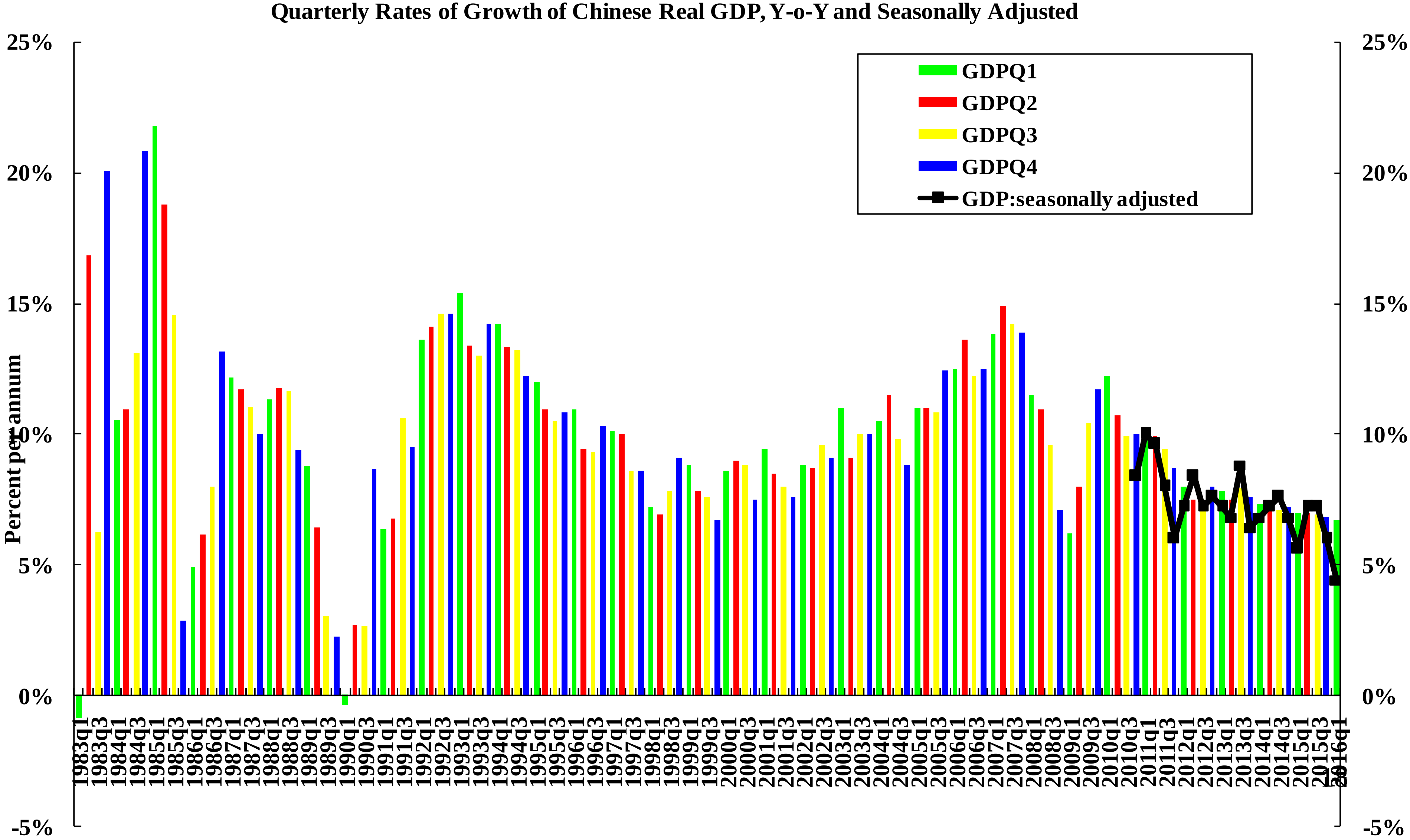
Quarterly Rates of Growth of Real GDP, Y-o-Y: Selected Asian Economies



Long-Term Prospects of the Chinese Economy: The Transition to a "New Normal"

- The rate of growth of fixed asset investment has been declining, reflecting, in part, the expectation that the rate of growth of real GDP will decline from almost 10% to around 6.5% going forward, and in part, the changing composition of GDP with the service sector, which requires much less fixed asset investment per unit GDP, becoming the largest sector of the economy (50.5% in 2015).
- However, the expectations of the consumers appear to have remained positive. The rate of growth of real retail sales has continued to be approximately one and a half times the rate of growth of real GDP.
- The target average annual growth rate of the Chinese economy for the Thirteenth Five-Year (2016-2020) Plan period is around 6.5%.

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



The Transition to a "New Normal": Trading Quantity for Quality

- The key performance indicators for the local government officials will be changed so that long-term economic viability and sustainability are also taken into account in addition to short-term growth in real GDP and employment.
- Moreover, other key performance indicators, such as those on the environment, both globally and locally, for example, air and water quality, have also been included as mandatory targets. The improvement of energy efficiency and the reduction of carbon emission are also important areas of focus.
- In the light of the recently successfully concluded COP 21 (a conference of the parties), which is the governing body for the United Nations Framework Convention on Climate Change, at Paris, with the joint support of both China and the United States, China will pursue these targets seriously.

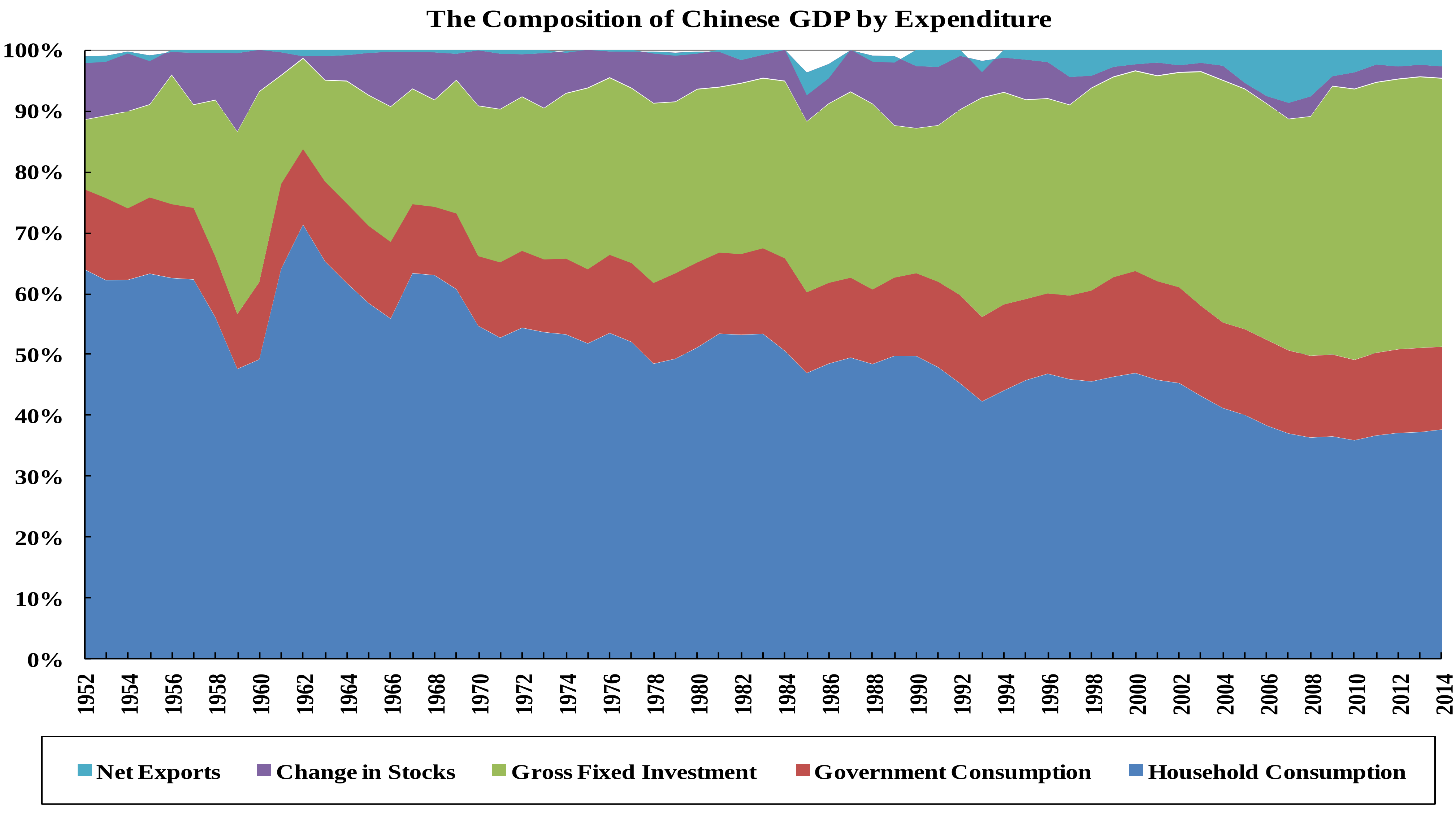
The Transition to a “New Normal”: Transformation of Supply Composition

- Second, there will be a transformation in the composition of GDP by production sectors.
- The tertiary sector has already overtaken the secondary sector as the most important sector by GDP originating. It accounted for 50.5% of GDP in 2015. The GDP originating from the primary (agricultural) sector fell to 9% in 2015. In 2016Q1, the service sector accounted for 56.9% of GDP, compared to agriculture’s 5.6%.
- The shift in the sectoral composition has led to changes in the demands for energy, including electricity, transportation, and fixed investment. Thus, while the so-called “Keqiang Index”, which consists of the weighted sum of the rates of growth of electricity consumption, railroad freight volume and bank credit, may have been a good indicator of the rate of growth of the industrial sector, it will be an increasingly downward-biased indicator of the rate of growth of real GDP because of the continuing shift in the sectoral composition of output towards the tertiary or service sector.

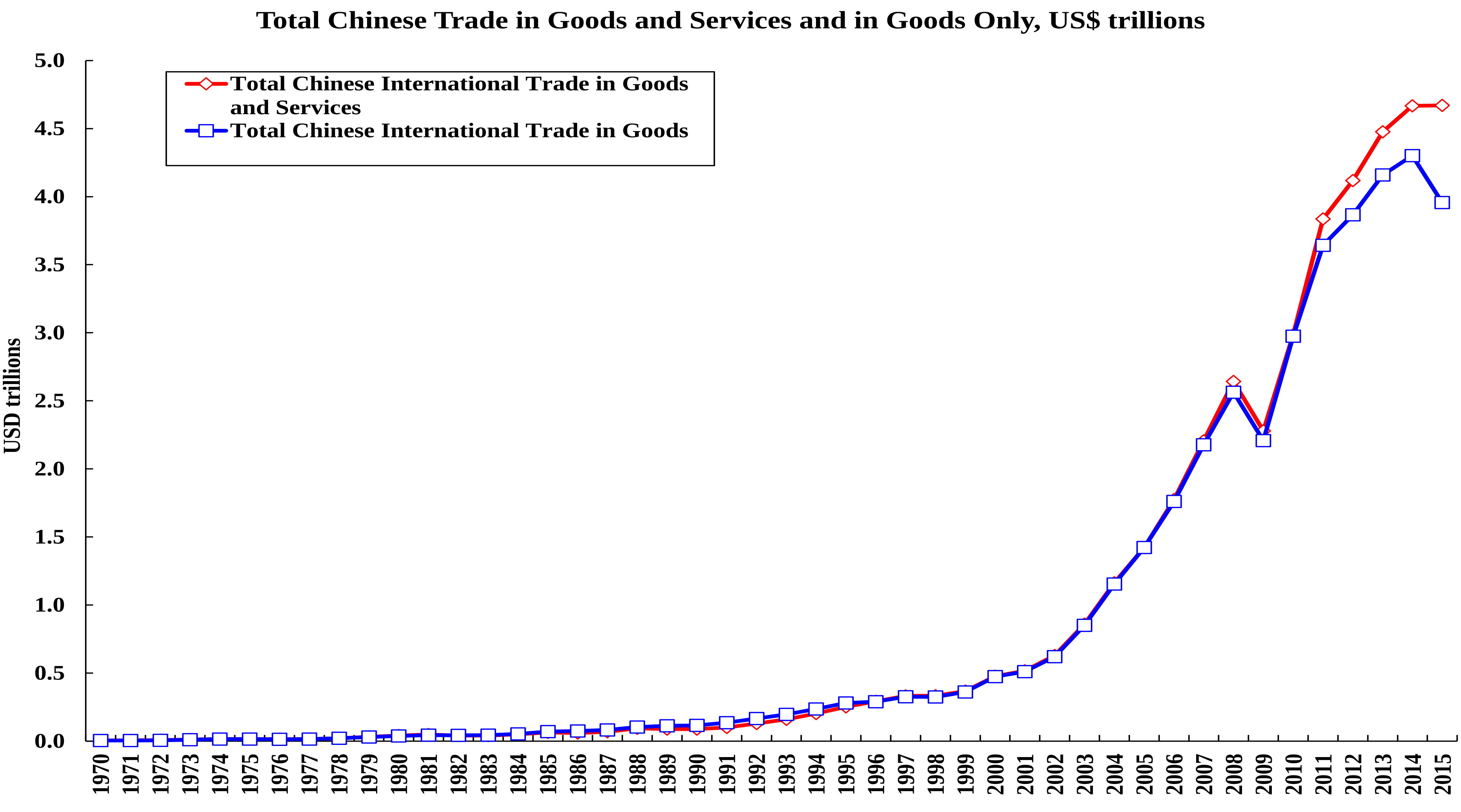
The Transition to a "New Normal": Transformation of Final Demand Composition

- Third, there will also be a transformation in the composition of final demand. On the demand side, Chinese economic growth will be principally driven by the growth of its own internal demand, consisting of public infrastructural investment (for example, high-speed railroads, urban mass transit systems and other urban public works, public wifi towers, affordable housing and clean energy), public goods consumption (education, health care, elderly care, and environmental protection, preservation and restoration—clean air, water and soil) as well as household consumption. It will no longer be driven by the growth of exports, or fixed investment in the manufacturing sector, or residential real estate.
- However, it should be noted that while the gross value of exports may not grow very fast any more, and will be a declining share of GDP, the value-added of exports may actually grow faster than the gross value itself. After all, it is the value-added that counts, not the gross value.

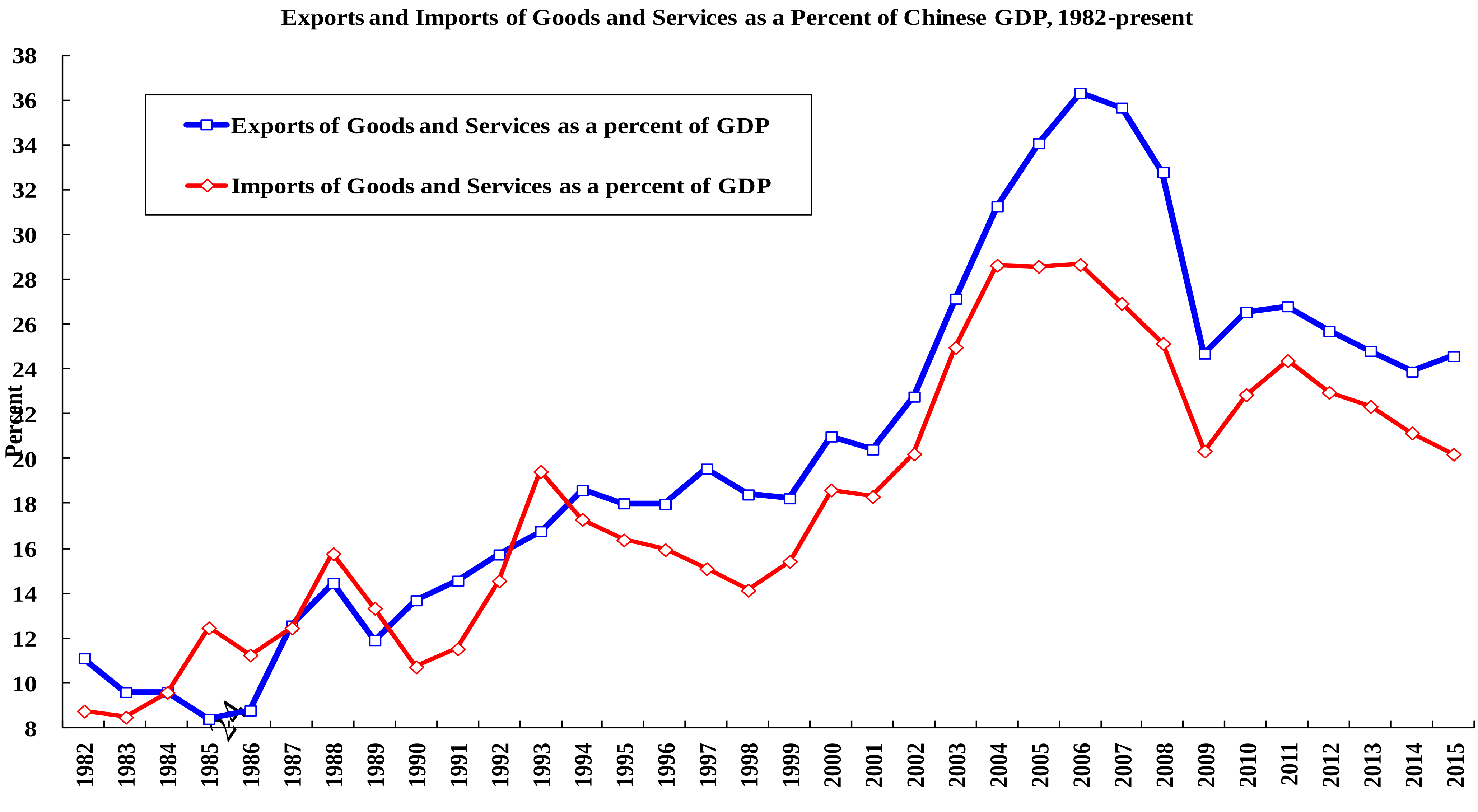
The Composition of Chinese GDP by Expenditure



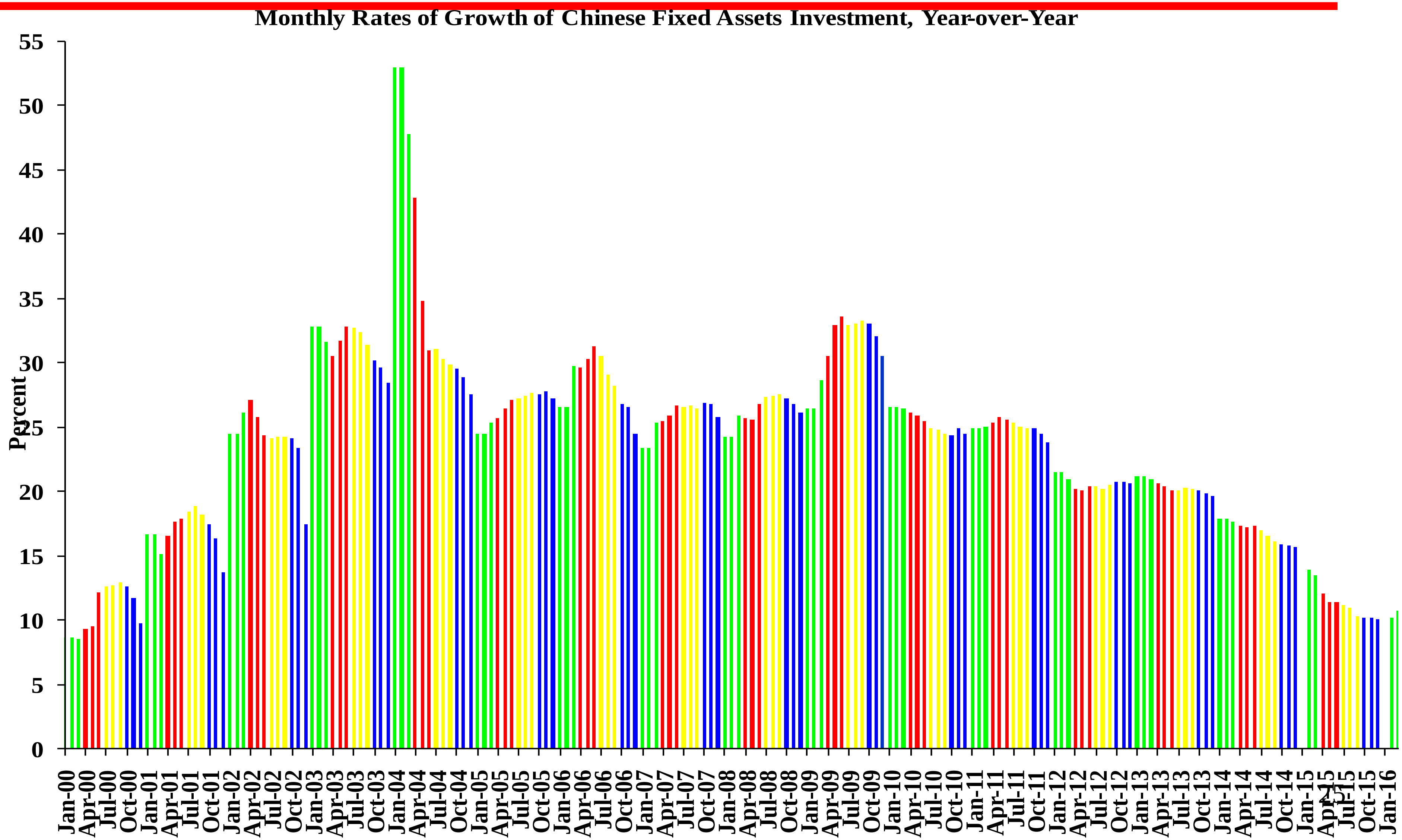
Total Chinese International Trade in Goods and Services and in Goods Alone, US$ trillions



Exports and Imports of Goods and Services as a Percent of Chinese GDP, 1982-present



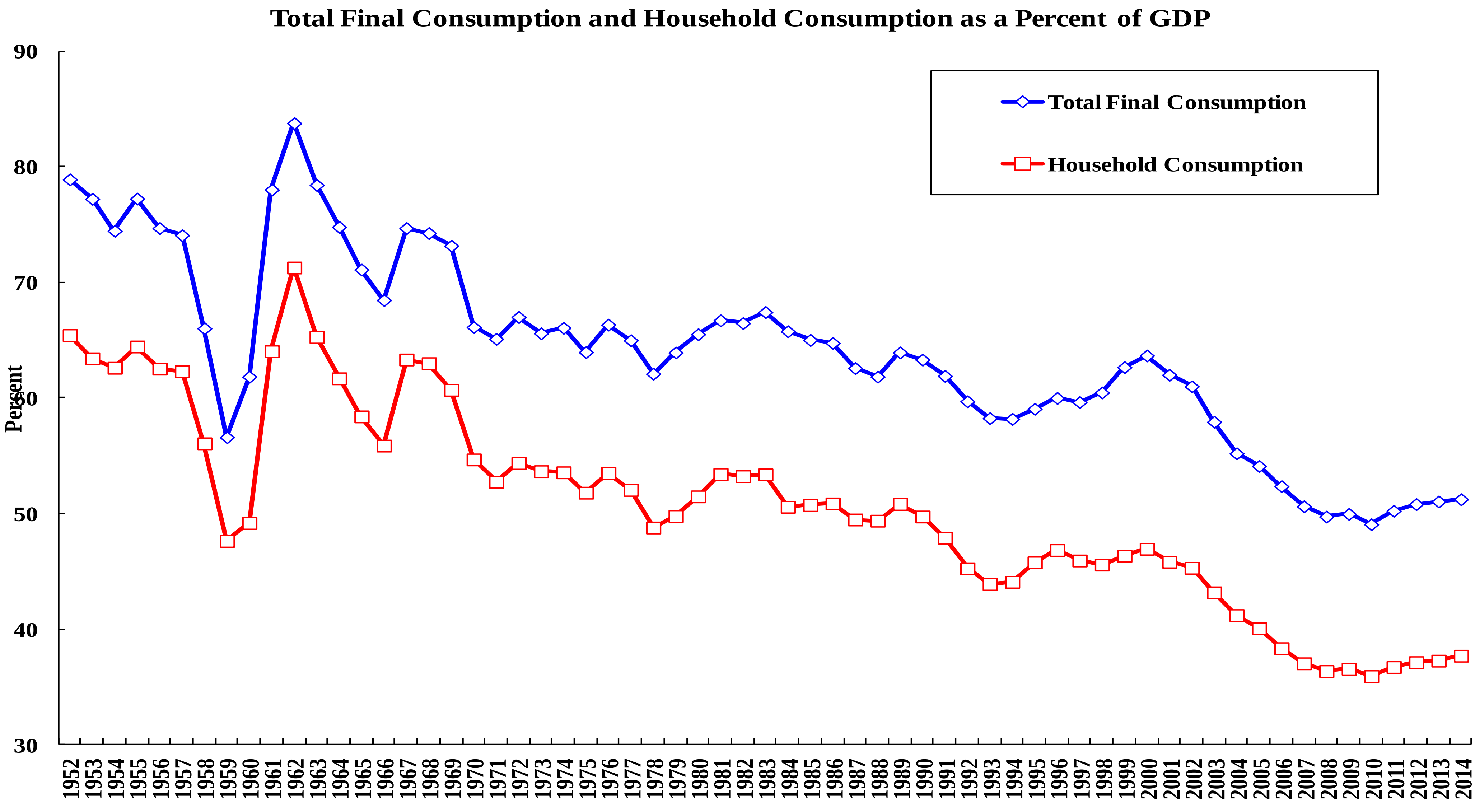
Monthly Rates of Growth of Chinese Fixed Assets Investment, Y-o-Y



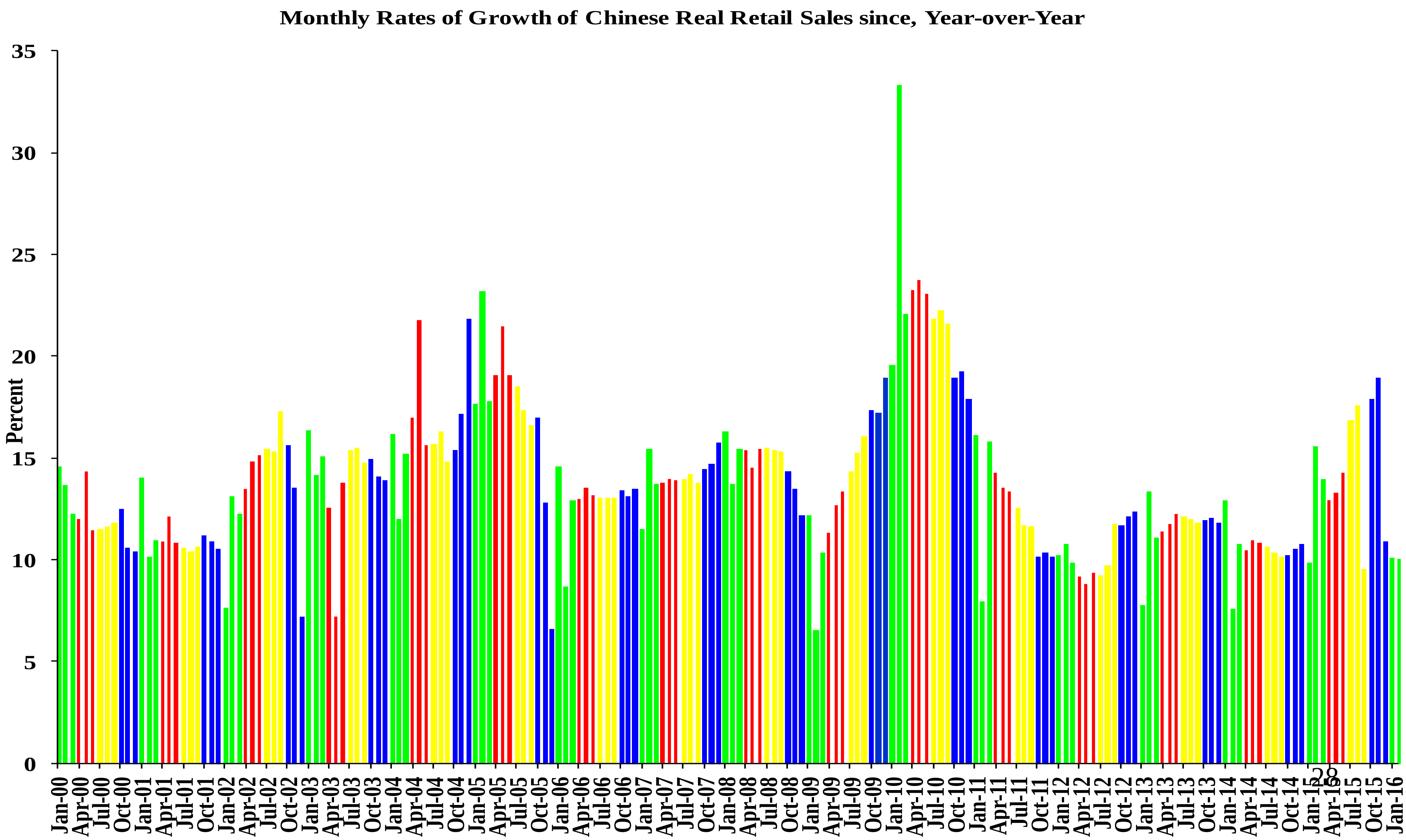
The Transition to a "New Normal": Transformation of Final Demand Composition

- Urbanization can not only increase the demand for public infrastructure and housing, but also promote the growth of the service sector, on both the supply and the demand sides.
- The growth in public goods consumption (including the necessary related investments) such as education, health care, elderly care, and environmental protection, preservation and restoration--securing cleaner air, water and soil can and should be an important component of the growth of aggregate demand going forward.
- Increasing public goods consumption is an effective method of redistribution of income in kind. For example, since everyone breathes the same air, if the air is cleaner, both the wealthy and the poor benefit equally; and better access to health care may benefit the lower-income households more. Expansion of public goods consumption can thus reduce significantly the real income disparity.

Total Chinese Final and Household Consumption as a Percent of Its GDP



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



The Transition to a "New Normal": Transformation of the Sources of Growth

- Fourth, there will be a gradual transformation of the sources of growth, from the growth of tangible inputs such as tangible capital (structures, equipment and basic infrastructure) and labor to the growth of intangible inputs such as human capital and R&D capital.
- Past Chinese economic growth has been mostly driven by the growth of tangible capital. Technical progress or growth of total factor productivity accounts for less than 10 percent of Chinese economic growth since 1978.
- According to Lau (2015), Chinese economic growth since 1978 may be attributed to the following sources: (1) The realization of the surplus potential output from the initial economic slack that resulted from the mandatory central planning prior to 1978 (12.65%); (2) The growth of tangible capital (55.71%) and labor (9.67%) inputs; (3) Technical progress (growth of total factor productivity (TFP)) (7.97%); and (4) The effect of economies of scale (13.99%).

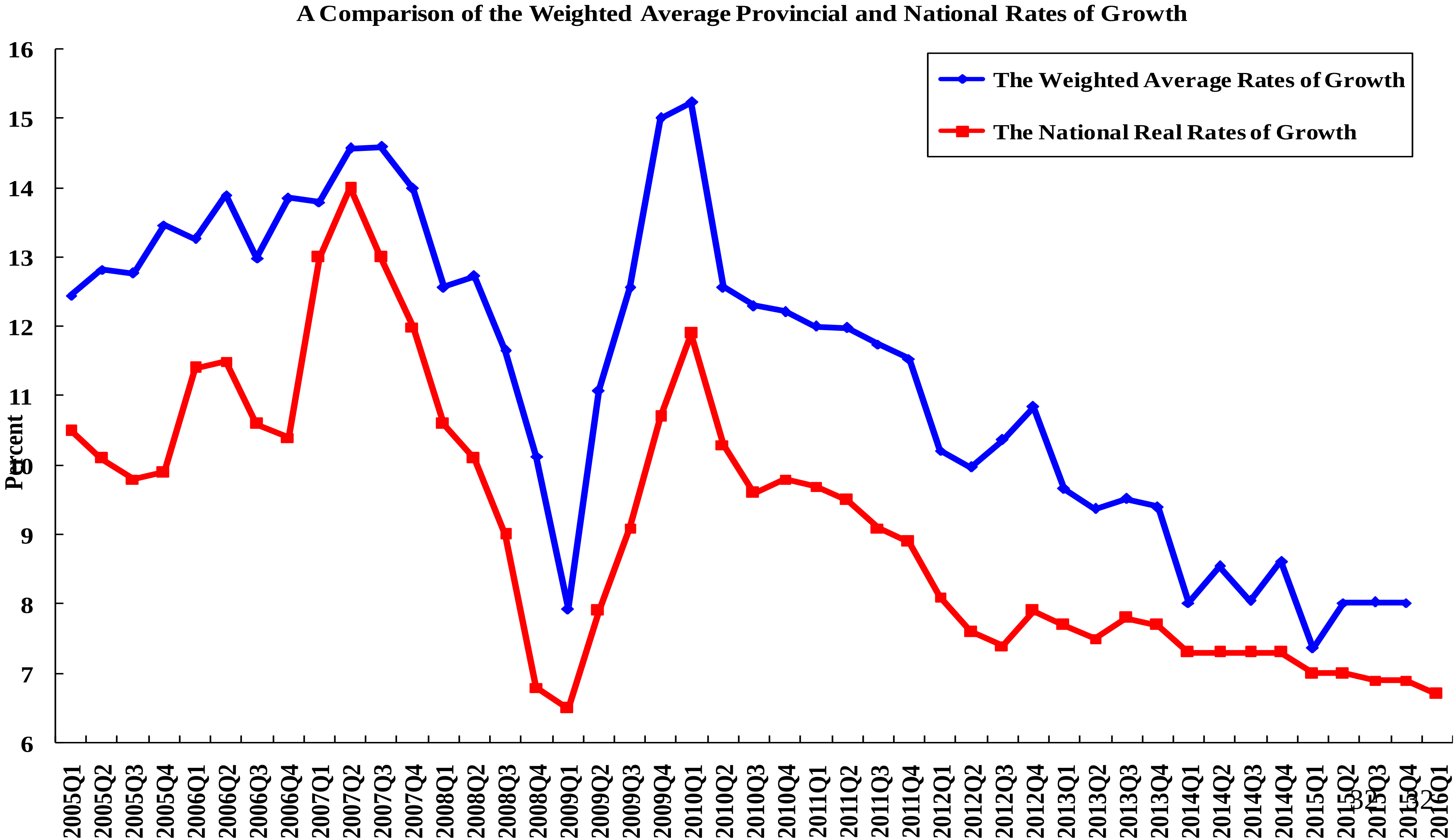
Long-Term Prospects of the Chinese Economy: The Questions

- The Reliability of Chinese Economic Statistics
- The Stability of the Renminbi Exchange Rate
- The Volatility of the Stock Market
- The Excess Capacities in Manufacturing
- The Chinese Debt Burden

The Questions:
The Reliability of Chinese Economic Statistics

- On the whole, the economic statistics are quite reliable. There is certainly no evidence that the numbers have been made up since the beginning of the economic reform and opening to the World in 1978. In fact, the National Bureau of Statistics has its own methodology for adjusting the provincial figures.
- The estimated levels may have biases, but the rates of growth from one year to the next are considered to be reasonably reliable.
- The Keqiang index, which consists of a weighted average of the rates of increase of electricity consumption, railroad freight, and credit volume, cannot be applied to the entire Chinese economy, especially given that China is in the midst of transitioning to a "New Normal" with emphasis on the service sector and also has been engaged in improving energy efficiency. For example, the new plants tend to be larger and more efficient than the old plants.

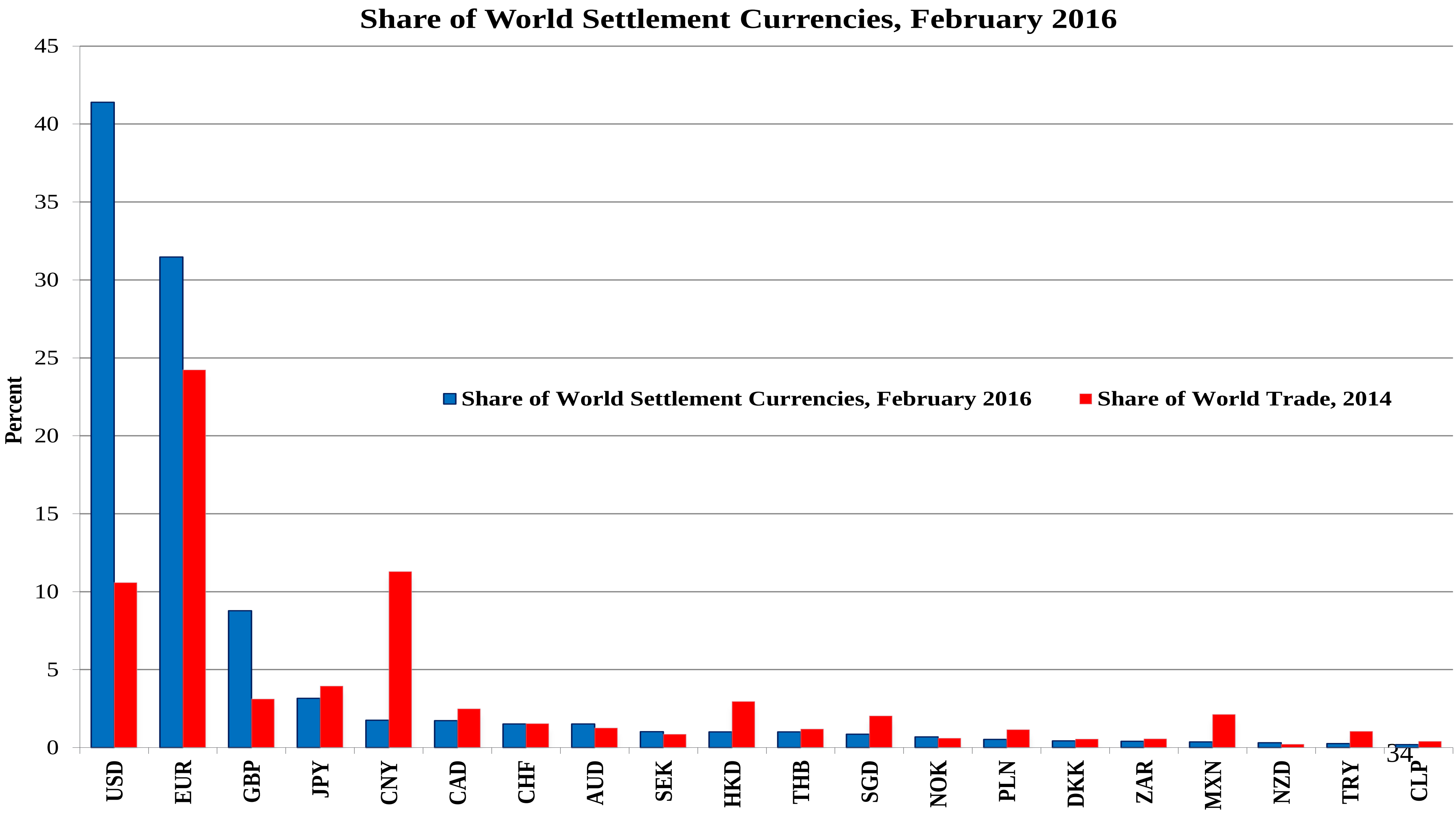
A Comparison of the Weighted Average Provincial and National Rates of Growth



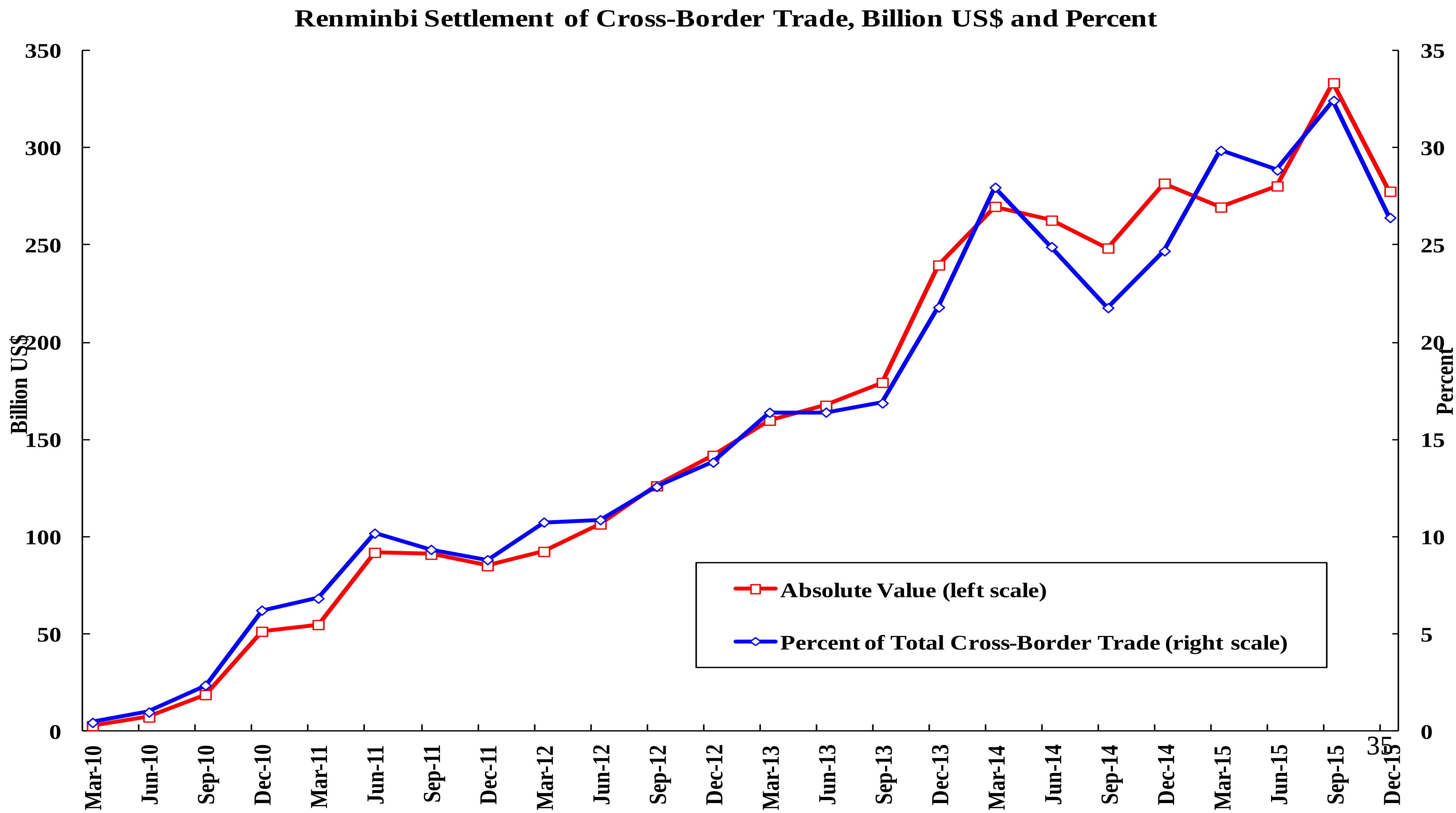
The Questions:
The Stability of the Renminbi Exchange Rate

- The Renminbi, the Chinese currency, is increasingly used as an invoicing, clearing and settlement currency for cross-border transactions, especially those involving Chinese enterprises as transacting parties.
- In the fourth quarter of 2015, Chinese cross-border trade settled in Renminbi amounted to an annualized rate of US$1.1 trillion, or 26.4% of total Chinese cross-border trade, compared to virtually zero in the first quarter of 2010. (Actually, the proportion of Chinese trade settled in Renminbi already reached 32.4% in the third quarter of 2015 and would have grown higher were it not for the unexpected Renminbi devaluation of 4% last August.)
- If the same proportion of Chinese trade is settled in its own currency as Japan (approximately 50%), then more than US$2 trillion of Chinese trade will be settled in Renminbi annually, greatly diminishing the necessity for China to have a large foreign exchange reserve.

Distribution of World Trade Settlement Currencies versus World Trade, Feb. 2016



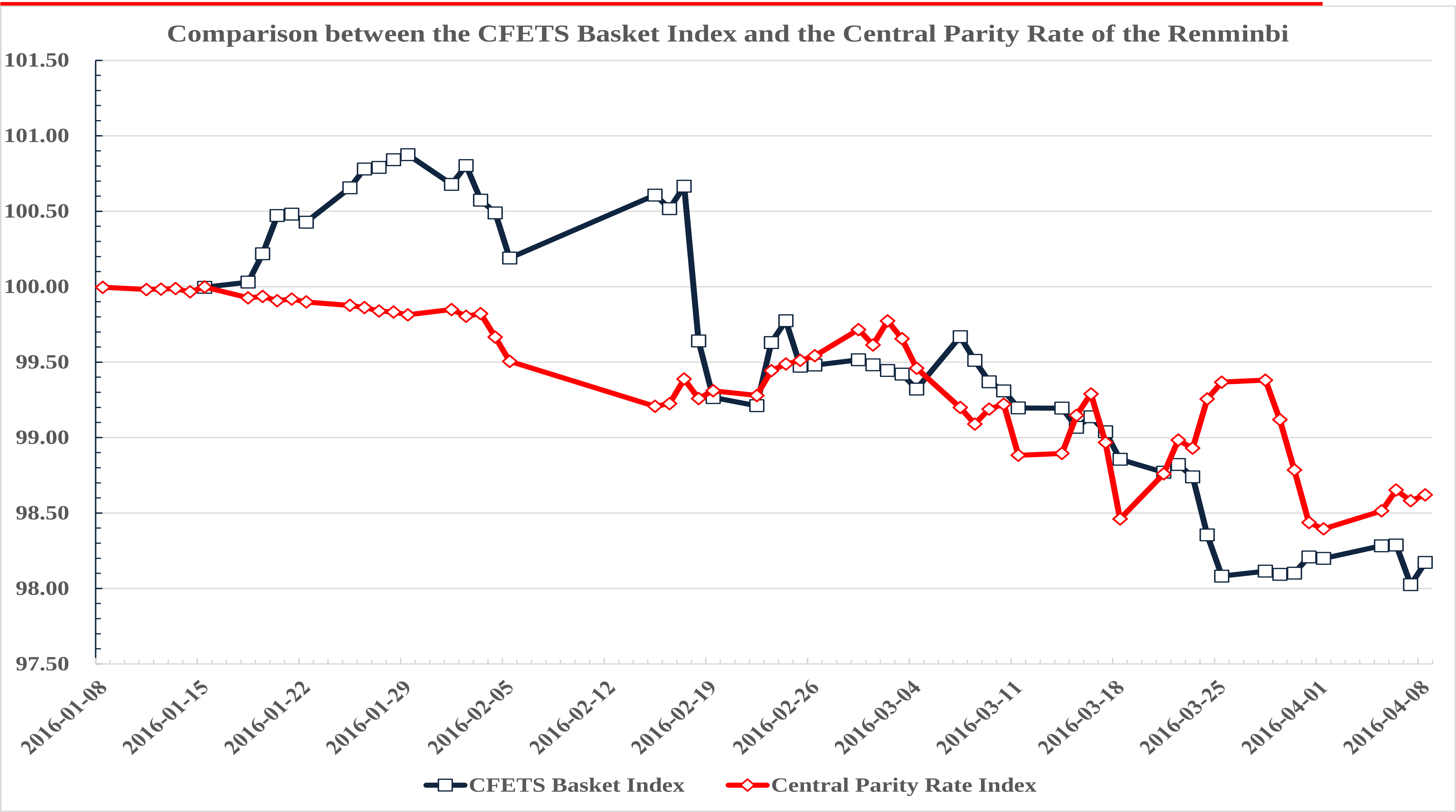
Renminbi Settlement of Chinese Cross-Border Trade, Billion US$ and Percent



The Questions:
The Stability of the Renminbi Exchange Rate

- The Renminbi exchange rate has stabilized recently after assurances by Premier Li Keqiang and Governor of the People's Bank of China Zhou Xiaochuan.
- The Renminbi exchange rate is likely to hold relatively steady vis-a-vis the US$ going forward.
- It is in China's interests to promote the use of its own currency, the Renminbi, as a medium of international exchange, certainly in international transactions in which its national is one of the transacting parties. This requires a relatively stable exchange rate vis-a-vis the US$.
- However, with the rising U.S. rate of interest, the U.S. Dollar may be expected to continue to appreciate relative to all the other major international reserve currencies within the next year or two.
- In order to maintain the long-term relative stability of the Renminbi exchange rate, it is not unreasonable for the Yuan to appreciate less relative to these other currencies going forward (and thus to devalue slightly relative to the U.S. Dollar) so as to avoid a sharp devaluation relative to the other currencies when the U.S. Dollar eventually weakens. The volatility of the Renminbi exchange rate will be reduced compared to the US$ exchange rate.

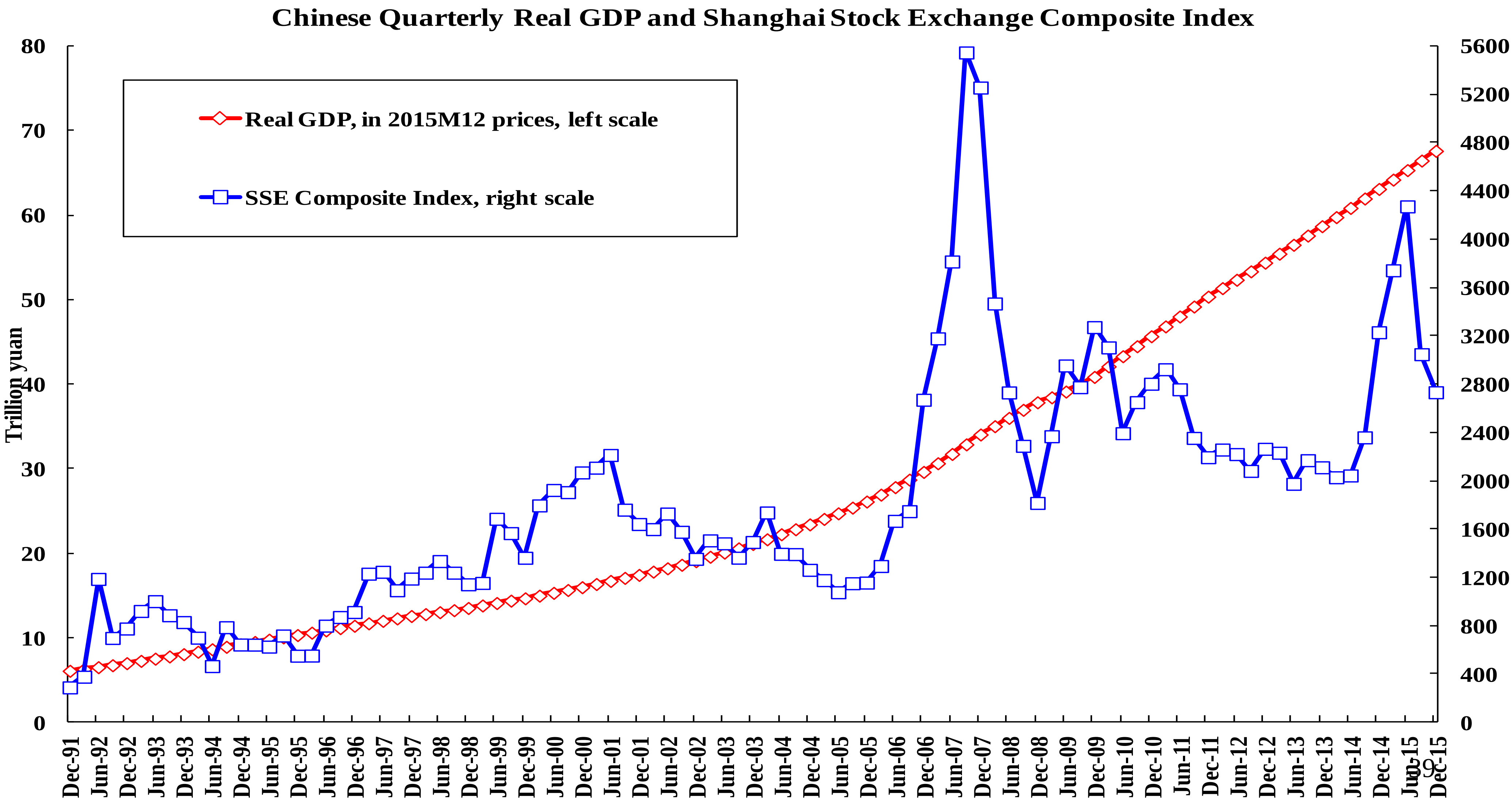
The Central Parity Yuan/US$ Exchange Rate and the CFETS Basket of Currency Index



The Questions:
The Volatility of the Stock Market

- What is the impact of the bursting of the Chinese stock market bubble in July 2015 on the Chinese economy itself?
- It should be realized that this was not the first time that a Chinese stock market price bubble burst. It happened once before, in 2007, when the peak of the bubble was higher and the trough was lower than the current one (see the following chart). However, neither the run-up of the stock price bubble, or its subsequent burst, appeared to have had much effect on the Chinese real economy at the time as well as this time.
- Why is this the case? One reason is that approximately 90 percent of the Chinese stock investors are individual retail investors, who tend to hold their shares for only brief periods, and trade very often. It is probably more accurate to describe their behavior as "gambling" rather than "investing".
- Moreover, for the longest time, "Initial Public Offerings (IPOs)" were suspended on Chinese stock markets.
- Thus, the developments in the real economy and the stock market are disconnected.

The Chinese Quarterly Real GDP and the Shanghai Stock Exchange Composite Index



The Questions: The Excess Capacities in Manufacturing

- There is excess capacity in steel coal, cement, flat glass, aluminum, ship-building, and solar panels--in almost every major manufacturing industry.
- What are the difficulties in achieving a reduction of the excess capacities?
- There is a lack of adequate bankruptcy laws for reorganization such as the U.S. Chapter 7 and Chapter 11 bankruptcy. There should be bankruptcy for enterprises without liquidation, which protects everyone's interests, including the workers and the lenders.
- The Chinese Government has expressed its determination to reduce the excess capacities, especially in the coal and steel industries.
- There is likely to be a debt-equity swap with the creditors (banks) and the establishment of resolution companies.
- Mergers and acquisitions are also likely.

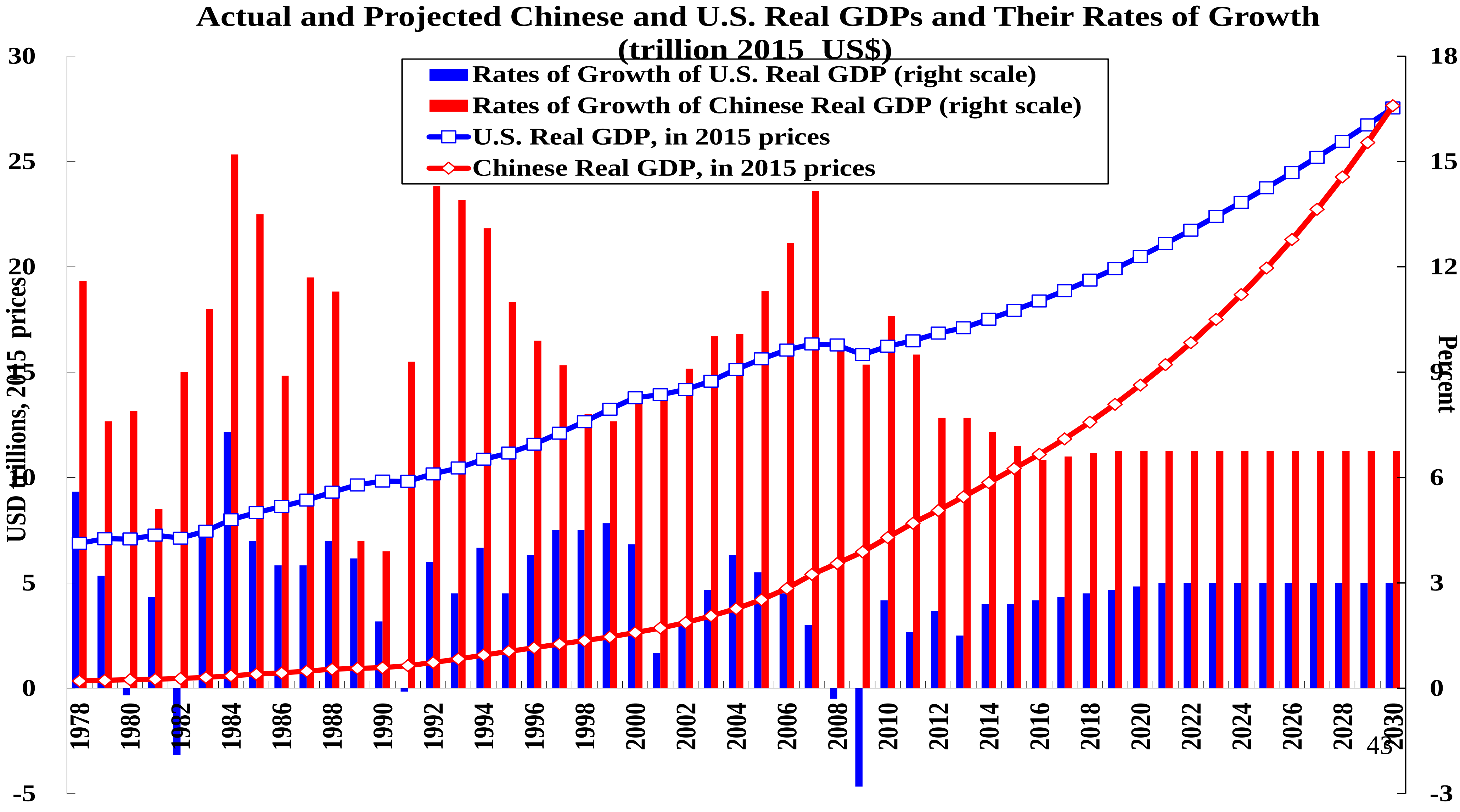
The Questions: The Chinese Debt Burden

- National public debt was approximately 44% of GDP in 2015.
- Outstanding borrowing by local governments and state-owned enterprises (SOEs) probably amounted to between 50 and 70 percent of GDP in 2015. Household borrowing was probably around 40%.
- Total local currency loans have more than tripled since the start of 2009, to 98.6 trillion renminbi, or about US$15 trillion, at the end of March, 2016.
- However, it should be noted that the SOE debt and the household debt are probably backed up with positive net worth and collateral and should not be equated with public debt.
- Moreover, almost all of the Chinese public debt is denominated in Renminbi and held by Chinese nationals. There is almost no default risk as long as Renminbi can be printed and its servicing and repayment should not present a problem.
- Furthermore, since almost all of the public debt is held by Chinese nationals, it is very much like intra-family debt.
- The Chinese situation is very similar to that of Japan, except that the Chinese public debt to GDP ratio is much lower.

Long-Term Prospects of the Chinese Economy: Projection of Real GDP to 2030

- It is projected that the Chinese economy will be able to continue to grow at an average annual rate between 6% and 6.5%, and that the U.S. economy will be able to grow at an average annual rate of 3% until 2030.
- At these rates, Chinese GDP will catch up with U.S. GDP around 2030.

The Actual and Projected Level and Annual Rate of Growth of Chinese and U. S. Real GDP



European Union-China Economic Cooperation: Bilateral Investment and Cross-Ownership

- A bilateral investment treaty between the EU and China will be extremely useful, especially now that Chinese enterprises are beginning to make direct investments overseas.
- One alternative to mergers and acquisitions is to introduce a form of joint or cross-ownership. For example, just hypothetically, the Volkswagen joint venture in China can be injected into Volkswagen so that it becomes a wholly-owned subsidiary of Volkswagen in return for Chinese equity ownership in Volkswagen of a certain percentage, say 20%, with the shares of Volkswagen listed in both Frankfurt and Shanghai (and possibly elsewhere). This can align the interests of everyone. (This would have some resemblance to Royal Dutch Shell.)

European Union-China Economic Cooperation: Bilateral Investment and Cross-Ownership

- The “Made in China 2025“ plan recently announced by the State Council is designed to transform China into a world manufacturing power comparable to Germany and Japan today.
- The 10 key sectors that are the foci of “Made in China 2025“ plan are new information technology, numerical control tools and robotics, aerospace equipment, ocean engineering equipment and high-tech ships, railway equipment, energy saving and new energy vehicles, power equipment, new materials, biological medicine and medical devices, and agricultural machinery.
- This will also provide opportunities for EU firms to take stakes in Chinese enterprises as well as to invite Chinese enterprises to take equity interests in EU firms.

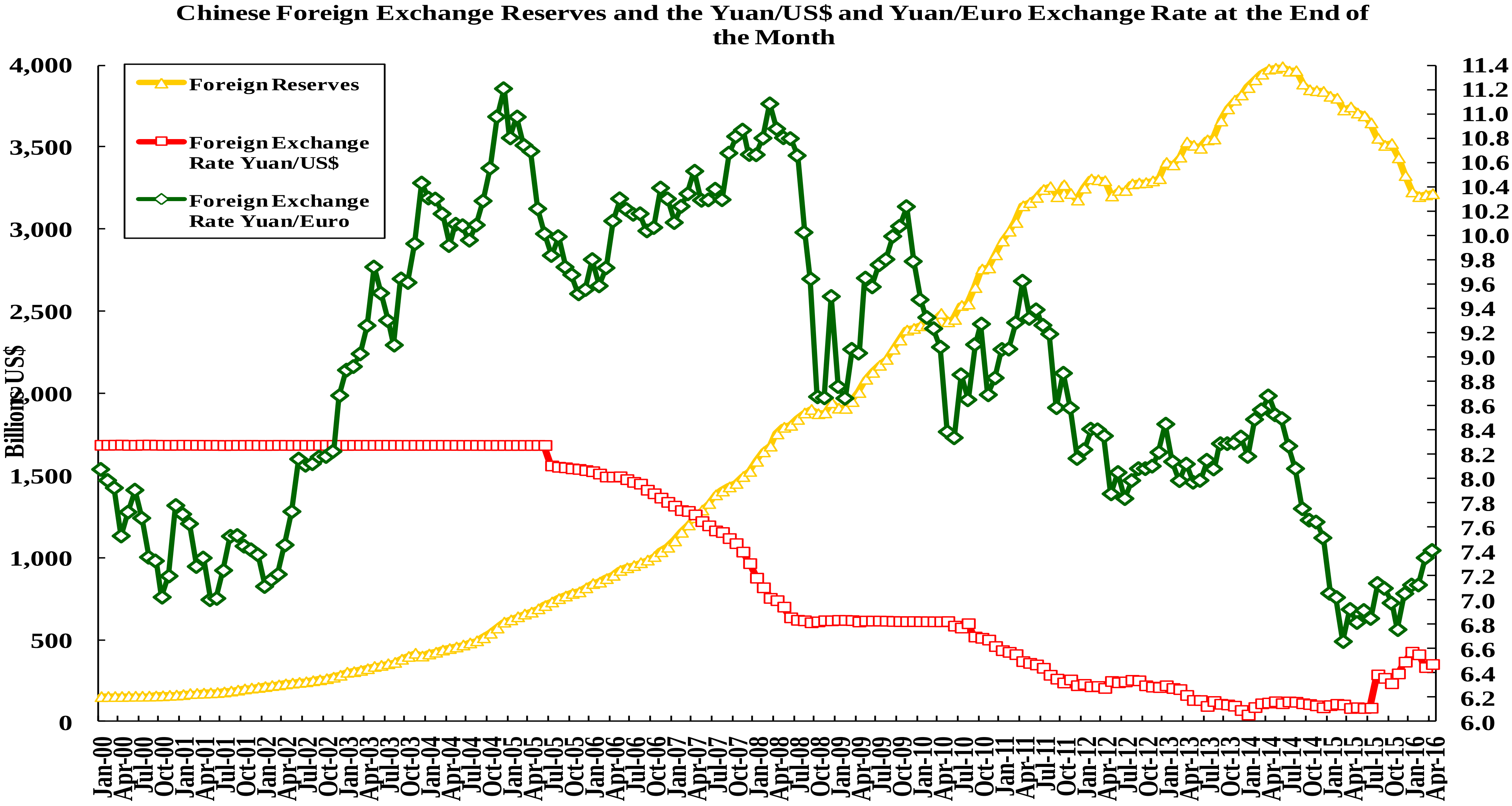
European Union-China Economic Cooperation: EU-China Free Trade Area

- A free trade agreement between EU and China will be beneficial to both.
- The "One-Belt, One Road" initiative of China can also facilitate the growth of trade between China and EU, especially in terms of a Maritime Silk Road (including the Northern Passage) and the Eurasian Land Bridge.

European Union-China Economic Cooperation: Exchange Rate Coordination

- A EU-China Free Trade Area will certainly increase trade between the two economies.
- However, the volatility of the Euro-Yuan exchange rate tends to discourage both trade and direct investment. (The Eurozone's own experience testified to this possibility—intra Eurozone trade increased significantly after the introduction of the Euro.)
- There is a proposal by Prof. Robert Mundell, Nobel Laureate in Economic Sciences, sometimes referred to as the Father of the Euro, for efficient and incentive-compatible exchange rate coordination.
- Basically the idea is to agree on a range of fluctuation for the Yuan/Euro exchange rate, say 5% up and down from an initial central rate.
- When the Euro is too strong and threatens to exceed the upper limit of the band, the Eurozone central bank will buy Renminbi with Euros, driving up the Renminbi exchange rate relative to the Euro. When the Euro is too weak and threatens to breach the lower limit of the band, the People's Bank of China will buy Euros with Renminbi, driving up the Euro exchange rate relative to the Yuan.
- Such an arrangement will stabilize expectations of the Yuan/Euro exchange rate for exporters, importers and direct investors in both the EU and China and the enforcement mechanism will be incentive-compatible.

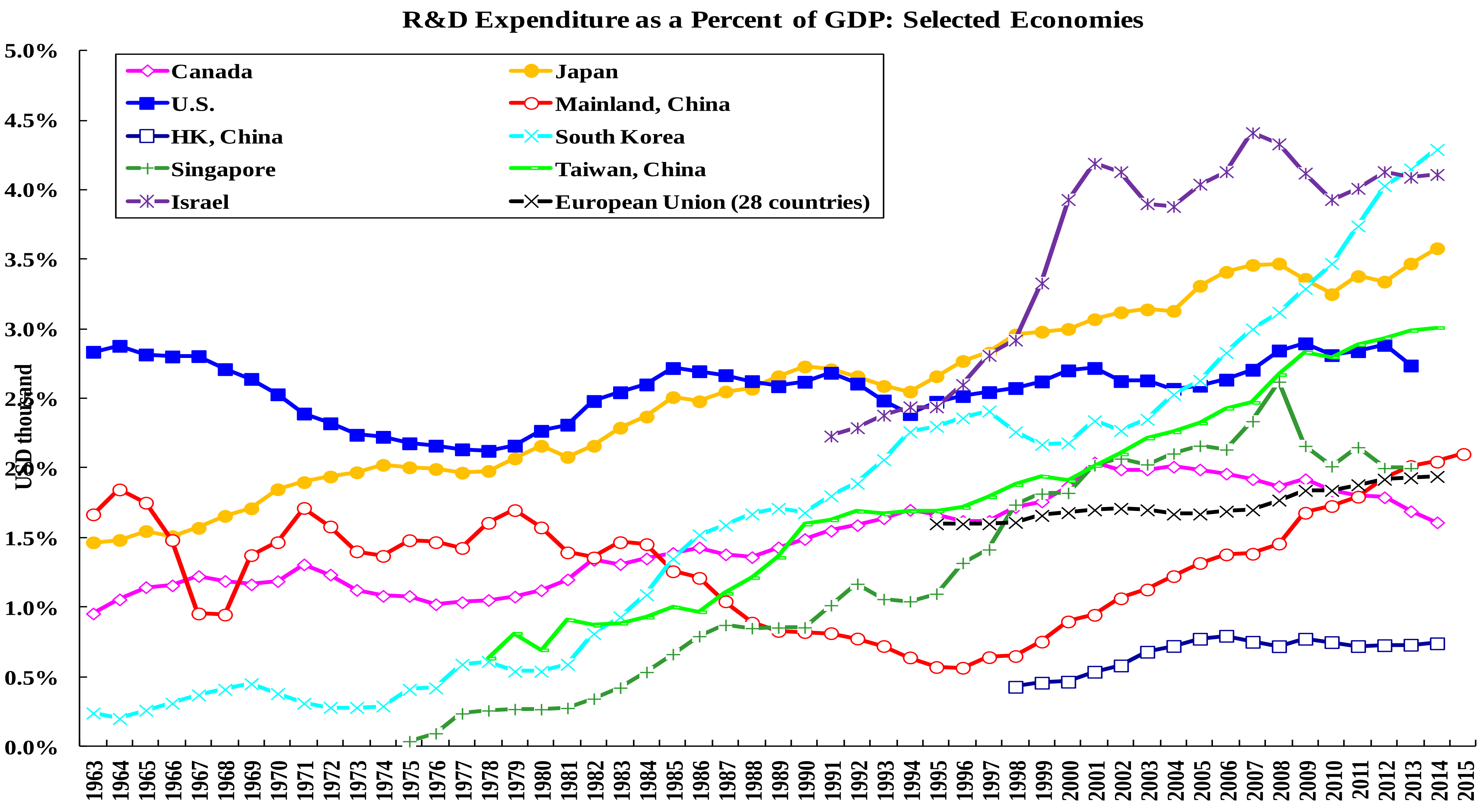
Chinese Foreign Exchange Reserves and the Yuan/US$ and Yuan/Euro Exchange Rate



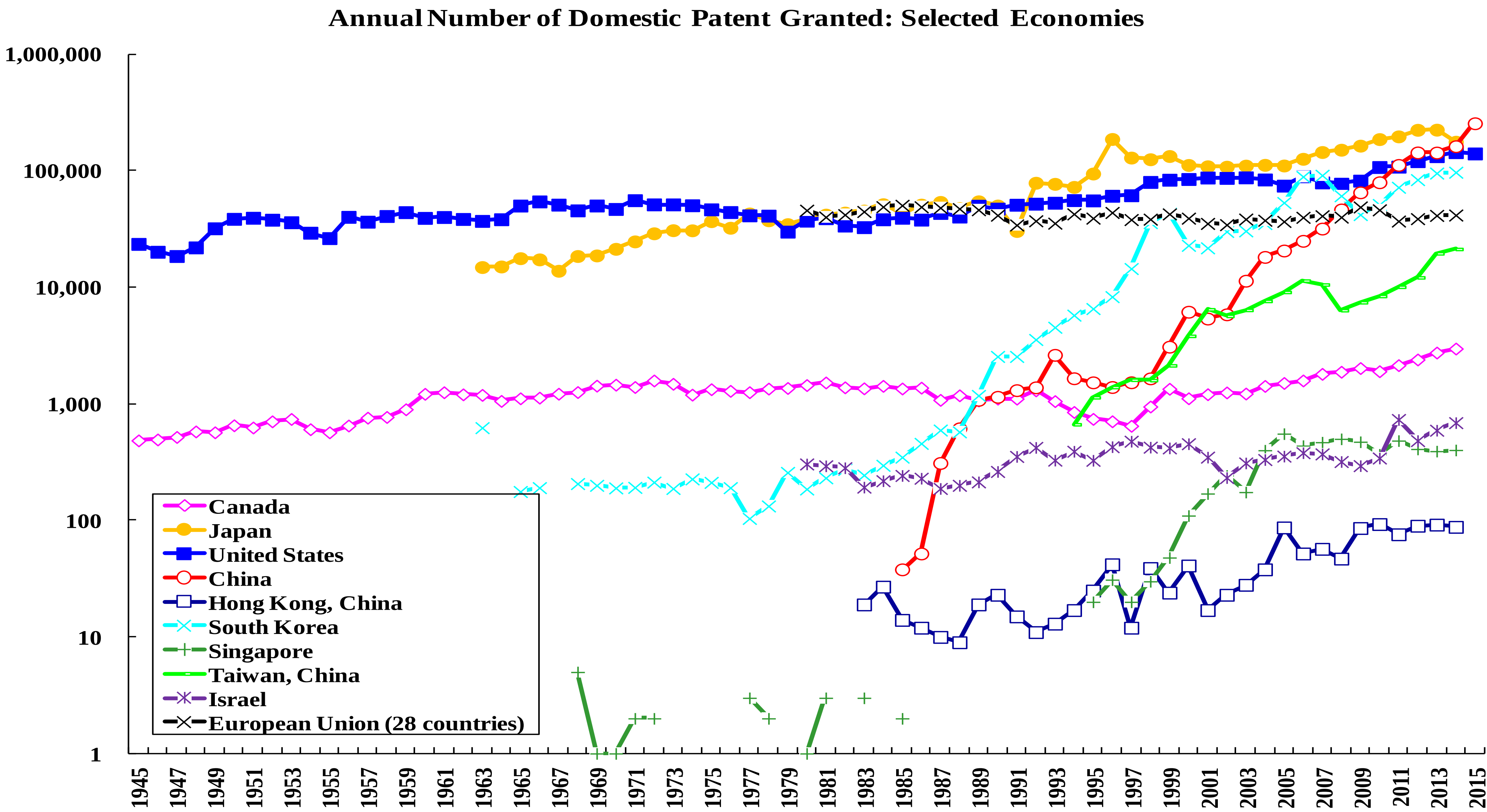
European Union-China Economic Cooperation: Intellectual Property Protection

- EU and China have large and increasing number of domestic patents. The annual number of domestic patents granted in China has exceeded that of the EU within the last year or so.
- EU and China have potentially very large and profitable markets for the exploitation of these patents.
- Intellectual property protection has been greatly strengthened in China, especially with the recent establishment of the specialized intellectual property courts in China.
- EU and China may wish to consider ways to facilitate the applications by applicants from either economy for patents in the other by recognizing the working papers used in their domestic patent applications. This does not imply reciprocal recognition but can greatly shorten the time required for a decision.
- This can be win-win.

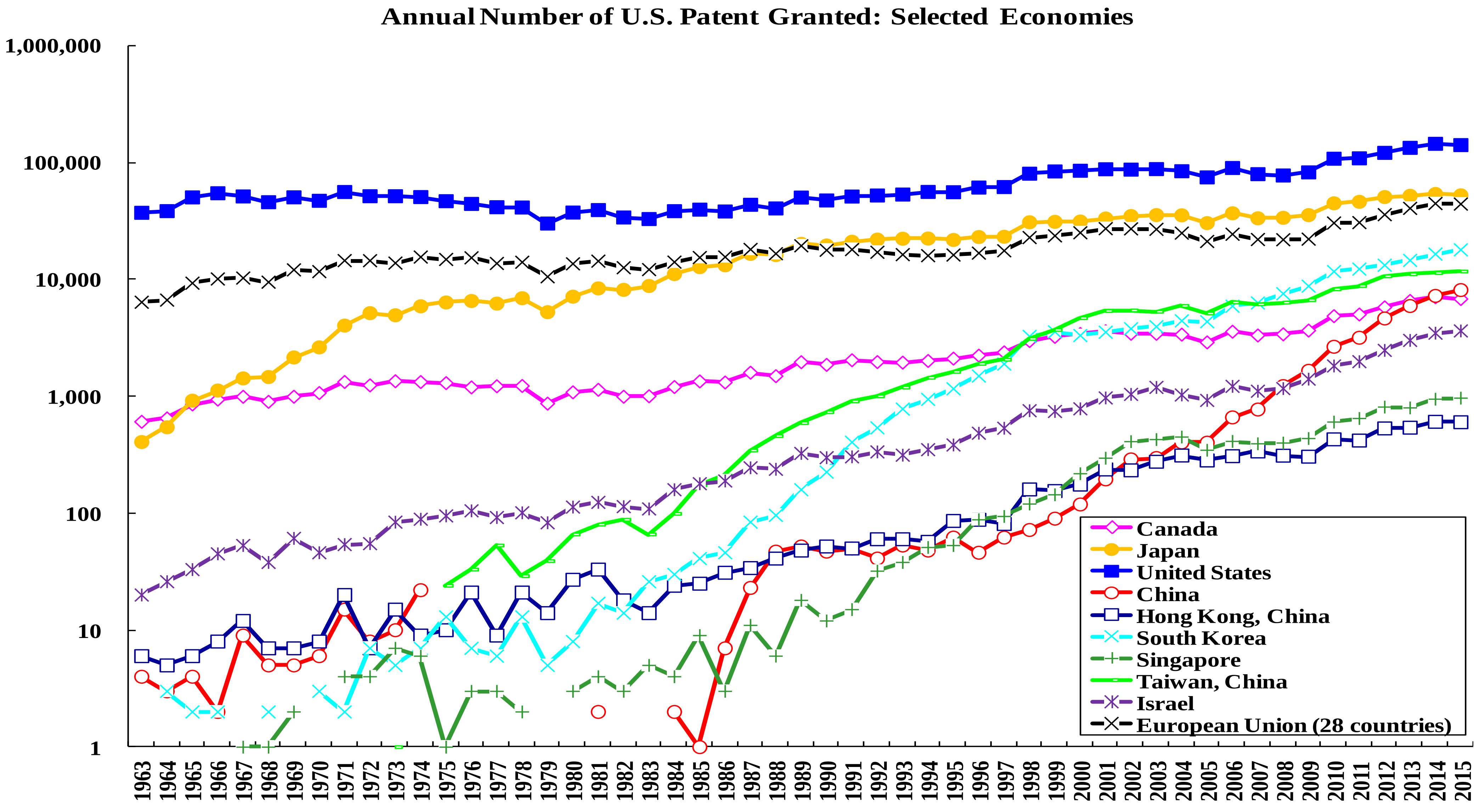
R&D Expenditure as a Percent of GDP: Selected Economies



Annual Number of Domestic Patents Granted: Selected Economies



Annual Number of U.S. Patents Granted: Selected Economies



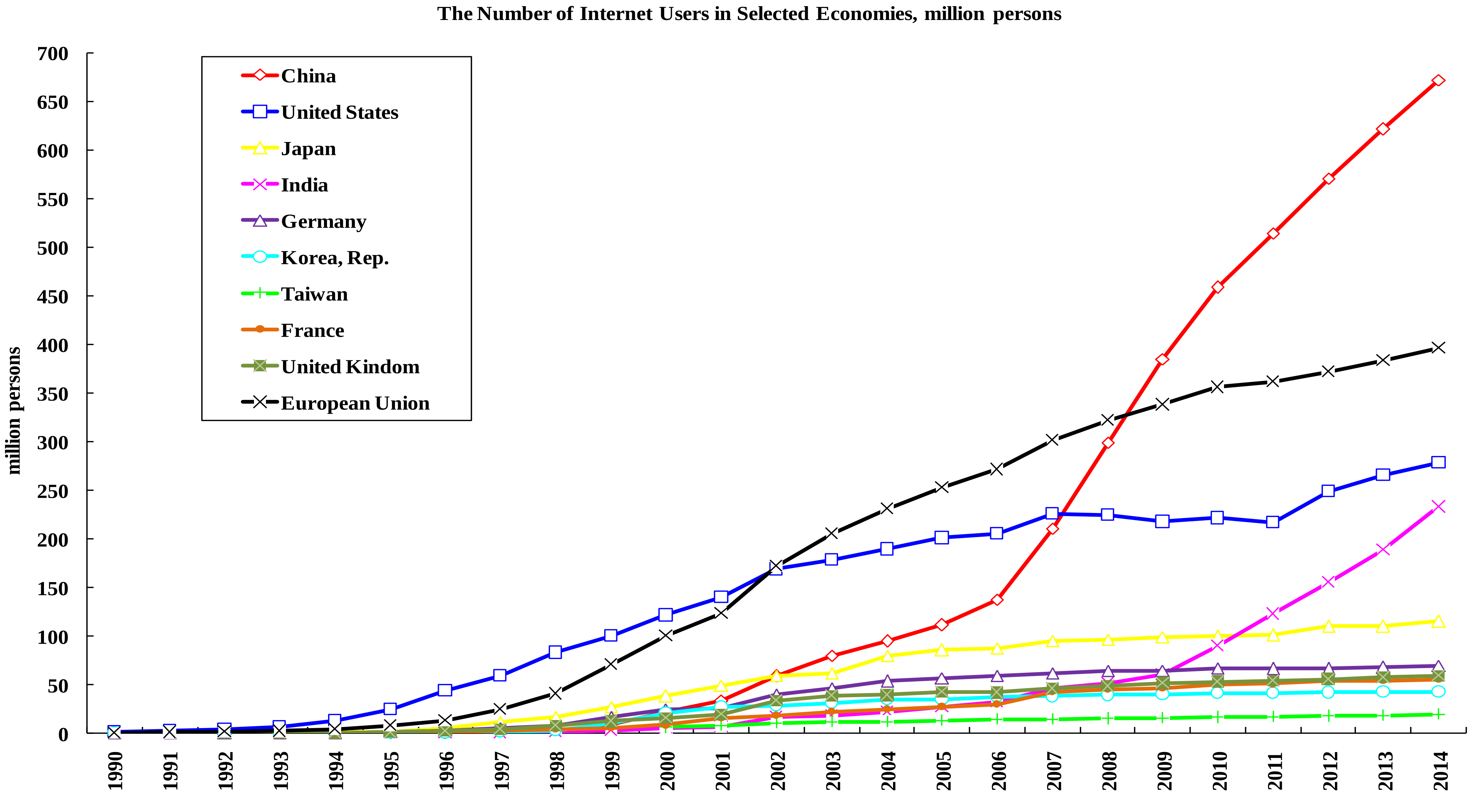
European Union-China Economic Cooperation: People-to-People Exchange

- There is a great deal of room for enhancing cultural, educational and scientific exchanges and also just plain tourism between the EU and China.
- Chinese outbound tourism has been growing by leaps and bounds and is expected to continue growing.
- EU and China can consider reciprocal multi-year and multiple-entry visas (the U.S. and China already have ten-year multiple-entry visas for the citizens of each other) to facilitate tourism and the various types of exchanges as well as business travel.
- The Schengen Treaty agreement is extremely important to the attraction of Chinese tourists to the individual country members of the EU, especially for those off the beaten path.

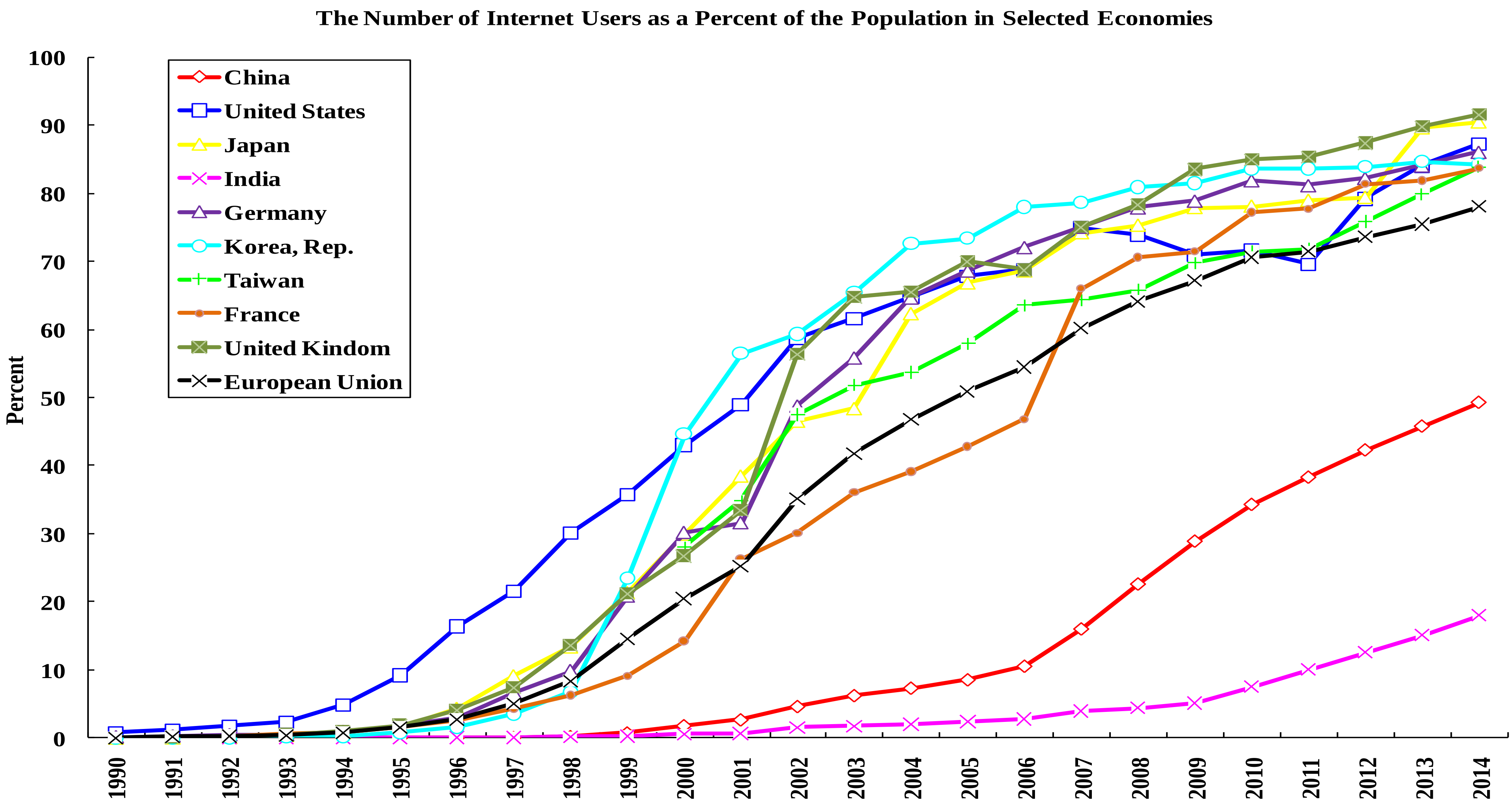
European Union-China Economic Cooperation: Cyber-Security

- This is also an area in which EU and China can collaborate as well as cooperate.

The Number of Internet Users in Selected Economies



The Number of Internet Users as a Percent of the Population in Selected Economies



European Union-China Economic Cooperation: Agriculture

- Agricultural trade is another potential area of cooperation.
- China shares EU's concerns on genetic modification.
- There is room to introduce new production to support long-term (say 20 years) export contracts of food products to China (e.g., pork and wheat).

Concluding Remarks

- If current trends continue, it is projected that the Chinese economy will surpass the U.S. economy to become the World's largest economy around 2030.
- Assuming that the economy of the European Union grows at an average annual rate of 2 percent between 2014 and 2025, the GDP of the European Union will be approximately US$23.5 trillion in 2025 (in 2015 prices).
- The GDP of the Chinese economy is projected to be still below US$20 trillion in 2025 (in 2015 prices).
- There is a great deal of room for trade and investment to grow and for other areas of economic collaboration and cooperation between EU and China.