

# China-U.S. Economic Cooperation: One Year Later

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## 1. Introduction

Approximately a year ago, a study, U.S.-China Economic Relations in the Next Ten Years, was published by the China-U.S. Exchange Foundation. The study makes a number of proposals for China-U.S. economic cooperation. The purpose of this paper is to revisit this study to see whether the proposals made have had any effect on the academia, businesses and governments in both countries. It turns out, to our pleasant surprise, that some of the proposals in the study have already been adopted and implemented. Other proposals are at various stages of being considered, evaluated, and negotiated, and will hopefully be adopted and implemented in some form in the future.

It is heartening to see some of the proposals that affect not just the two countries, but the whole World, for example, those that relate to climate change and to international trade, have been adopted. Historically, neither China nor the United States have ever had to treat other friendly countries as true equals. Looking back at Chinese history, China was either lording over other countries, treating them as vassal states, or it was a supplicant to foreign powers intent on turning a backward China into their colonies. And if one looks at the U.S., it saved European countries at least twice (World War I and World War II), and it occupied Germany and Japan in the aftermath of World War II. But I do not think the U.S. ever treated Japan, Germany, the U.K., or other European countries, as true equals. The only country the U.S. treated on an equal basis was the former Soviet Union during the Cold War, but it was as an adversary, not a friendly country. It is not easy for either country to treat a friendly country as an equal—they have to learn to do it.

That is why we advocate a new kind of major power relations in our study. It is of vital importance for this new kind of major power relations to be based on mutual respect, mutual recognition of each other's core interests, as well as mutual benefits. China-U.S. economic cooperation can be win-win; and only win-win cooperation can be durable and sustainable. It is not pre-destined whether China and the U.S. will become “friends” or “foes”, but such expectations can be self-fulfilling. That is why not only current interactions but also expectations of the future must be carefully managed. However, it is simple to say but not so easy to do.

## 2. Comparison of the Chinese and U.S. Economies

China has made tremendous progress in its economic development since it began its economic reform and opened to the World in 1978. It is currently the fastest growing economy in the World—averaging 9.8% per annum over the past 36 years (even though it has begun to slow down, to a little over 7% year-on-year growth). It is, however, historically unprecedented for an economy to grow at such a high rate over such a long period of time.

It is useful to compare the growth of Chinese and U.S. real GDP in both aggregate and per capita terms (see Charts 1 and 2 below). The red and blue lines in Chart 1 represent the levels of real GDP of China and the U.S. between 1949 and 2013 in 2013 prices respectively. The red and blue columns represent the annual rates of growth of real GDP of China and the U.S. respectively. This Chart shows how much progress China has made since it began its economic reform in 1978. Chinese real GDP was virtually flat between 1929 and 1978. In 1978, U.S. real GDP of US\$6.7 trillion was 18.7 times the Chinese real GDP of US\$356.5 billion. Between 1978 and 2013, Chinese real GDP grew more than 26 times to US\$9.32 trillion to become the second largest economy in the World, after the U.S. But Chinese real GDP is still quite a distance from the U.S. Real GDP. U.S.

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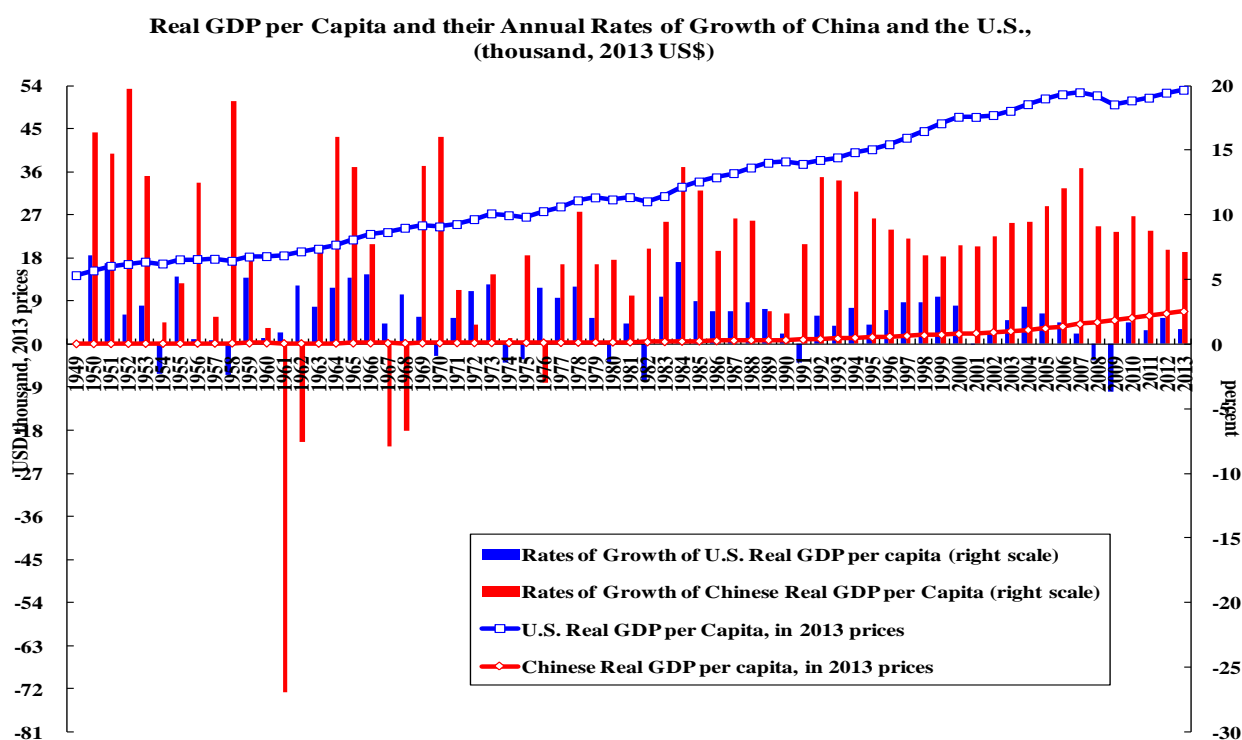
GDP today is still almost two times Chinese GDP. There are some who claim that Chinese GDP is already as large as U.S. GDP in purchasing-power-parity terms. I personally do not believe in Purchasing-Power-Parity GDP because it is highly sensitive to the set of so-called international prices used to calculate the GDPs. Real GDP measured in U.S. Dollars according to the current market exchange rate is still by far much more reliable.

Chart 1: Chinese and U.S. Real GDPs and Their Rates of Growth since 1949 (2013 US\$)



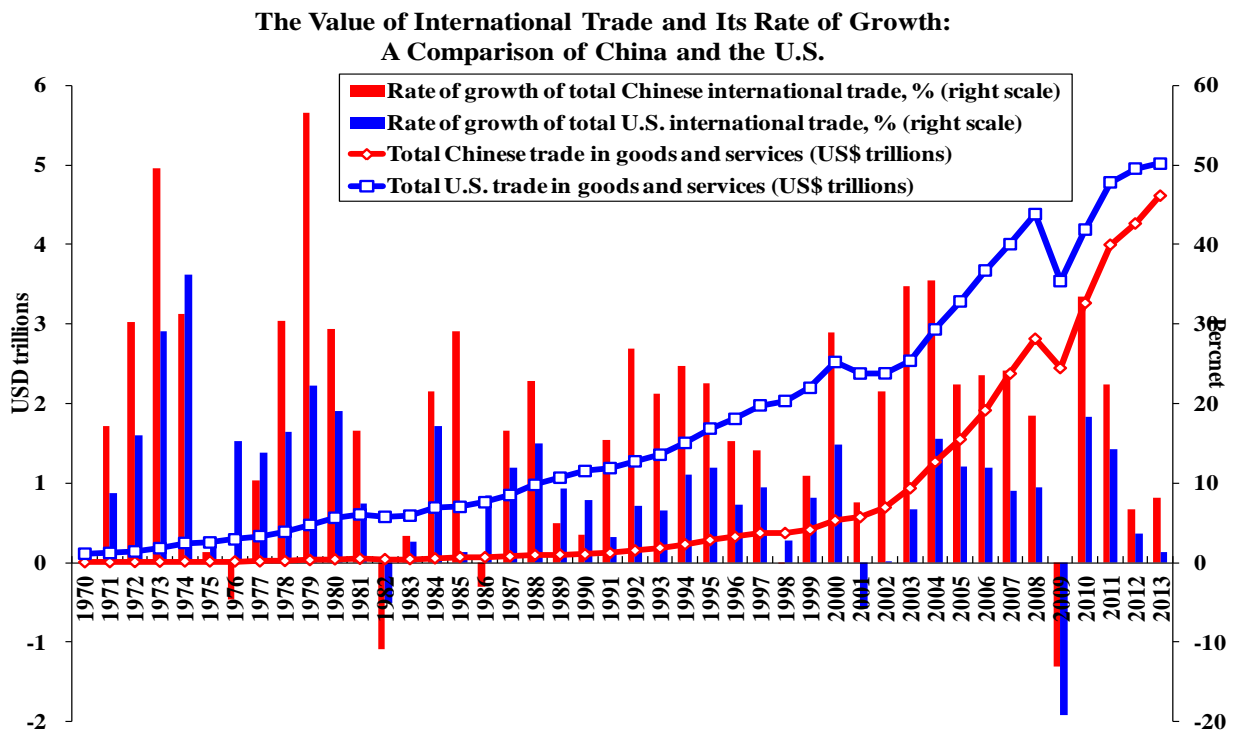
However, even though Chinese real GDP has been growing much faster than U.S. real GDP in both aggregate and per capita terms (the red columns are much higher than the blue columns in Charts 1 and 2), Chinese real GDP per capita still lags behind U.S. real GDP per capita by a large margin (see Chart 2). In 1978, the U.S. real GDP per capita of US\$30,046 in 2013 prices was 81 times the Chinese real GDP per capita of US\$370. Between 1978 and 2013, Chinese real GDP per capita grew 18.5 times to US\$6,850.5. By comparison, the U.S. GDP per capita of US\$53,086 in 2013 was 7.7 times the Chinese GDP per capita. It will still take a long time for China to close its gap with the U.S. in terms of real GDP per capita. China is still very much a developing economy.

Chart 2: Chinese and U.S. Real GDP per Capita and Their Rates of Growth since 1949 (2013 US\$)



Chinese international trade in goods and services has also grown by leaps and bounds since the beginning of its economic reform in 1978. The rate of growth of Chinese international trade accelerated after Chinese accession to the World Trade Organisation (WTO) in 2000. Chinese total international trade was only US\$20.3 billion, a pittance in 1978. It grew to US\$4.61 trillion in 2013, making China the second largest trading nation in the World, just after the U.S., with its total international trade of US\$5.02 trillion (see Chart 3). China has also become the largest exporting nation in terms of goods and services (US\$ 2.425 trillion in 2013), followed by the U.S. (US\$2.271 trillion). It has also become the largest exporting nation in the World in terms of goods alone, followed by the U.S. The U.S. is the largest importing nation in terms of goods and services (US\$2.75 trillion), followed by China (US\$2.19 trillion). The U.S. is the largest exporting as well as importing nation in terms of services, followed by respectively the United Kingdom and Germany. Moreover, as of 2013, China has become either the most important or the second most important trading partner country/region of almost all Asia-Pacific economies, including the U.S.

Chart 3: Chinese and U.S. International Trade and Their Rates of Growth (US\$) since 1970

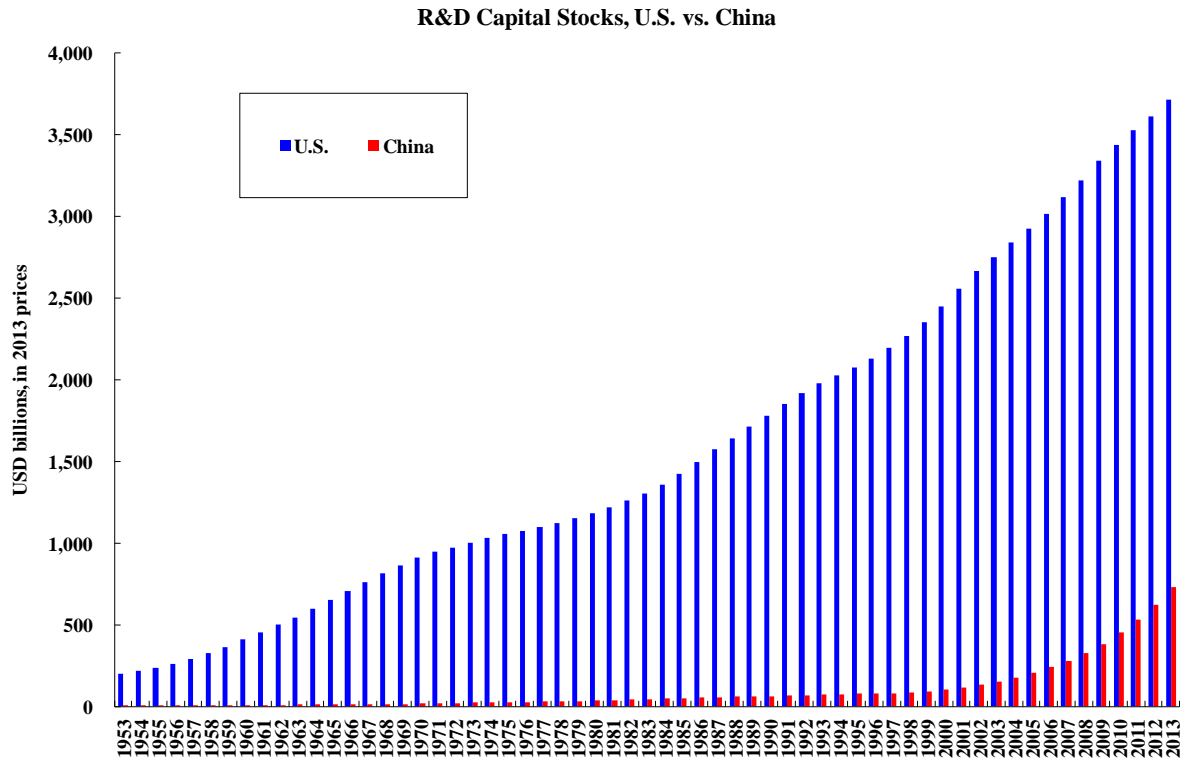


### 3. Is it a G-2 World?

Even though China is now the second largest economy, in terms of aggregate GDP, and the second largest trading nation in the World, is China ready for a G2, consisting of the U.S. and China, leading the World? I shall argue that talk of a G-2 World is really premature, because China is still very much a developing country. It still lags behind the U.S. significantly in science and technology, in innovation, and in national defense capabilities. In our original study, U.S.-China Economic Relations in the Next Ten Years, we presented some statistics comparing the level of science and technology development in the two countries such as the number of Nobel Laureates and the citations of scientific articles. The U.S. is still way ahead of China on both of these counts. In addition, we can compare the levels of R&D capital stock, the annual numbers of patents obtained, and the degrees of internet penetration in the respective countries.

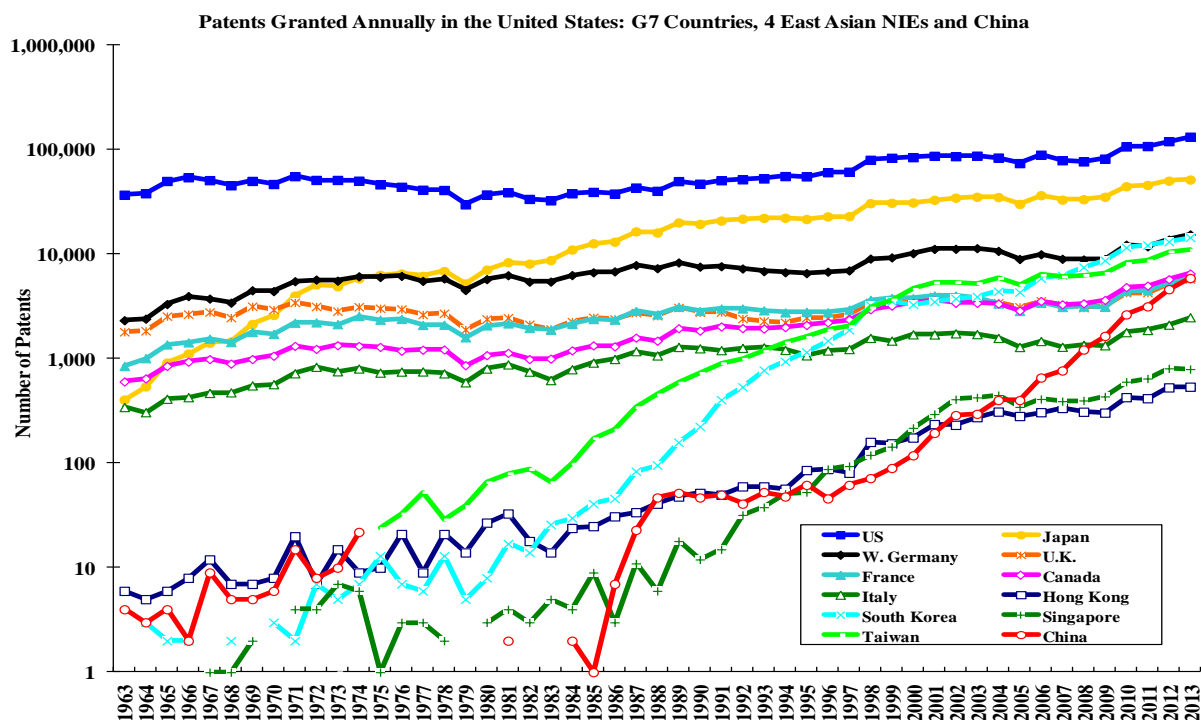
First, the R&D capital stock, which is defined as the cumulative annual total of real expenditures on R&D, less a depreciation of 10 percent per annum, is the most important determinants of advances in science and technology. China is significantly behind in the U.S. in terms of R&D capital stock: in 2013, Chinese R&D capital stock was only US\$ 727 billion (in 2013 prices) compared to the United States' US\$ 3.7 trillion (see Chart 4). On per capita terms, China would be even further behind.

Chart 4: R&D Capital Stocks: A Comparison of China and the U.S., 2013 US\$



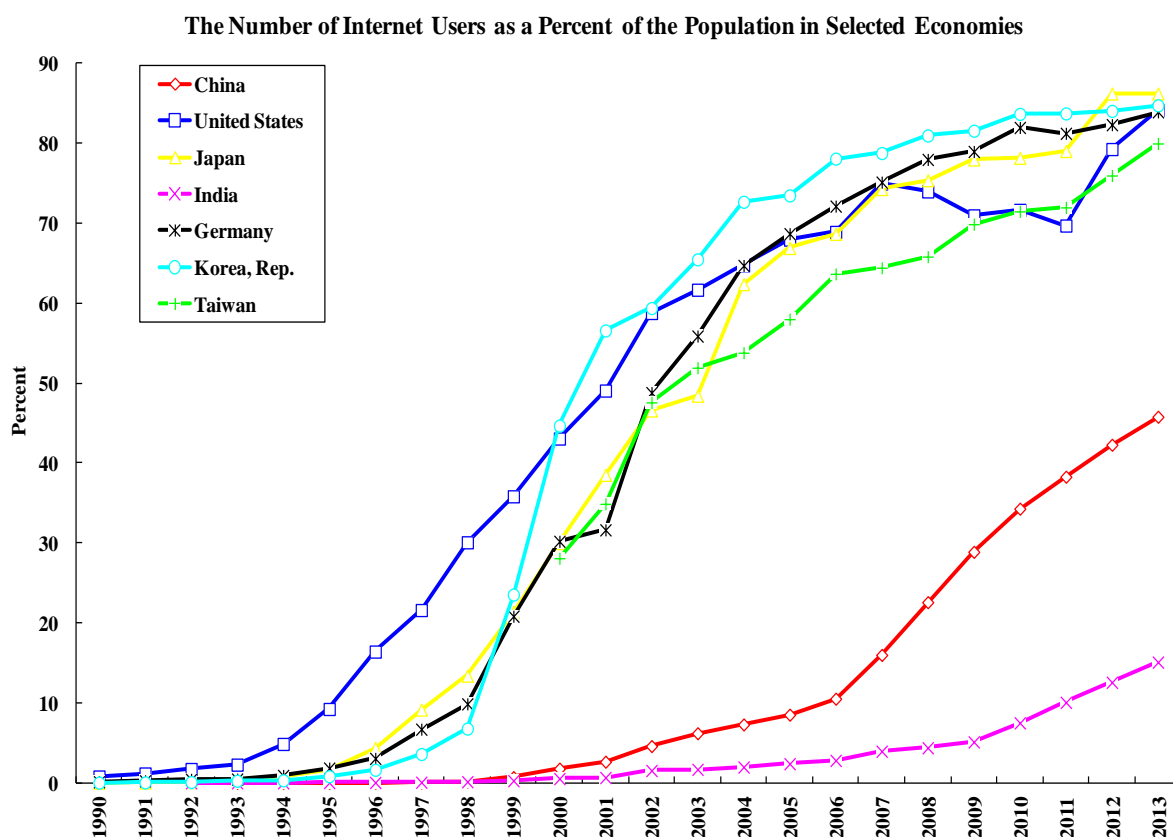
The difference in the levels of R&D capital stocks also translates directly into the difference in the annual number of patents obtained by the U.S. and China respectively. In Chart 5, the number of patents granted in the United States each year to the nationals of different countries, including the U.S. itself, over time is presented. The U.S. is the undisputed champion over the past forty years, with 133,593 patents granted in 2013, followed by Japan, with 51,919. (Since these are patents granted in the U.S., the U.S. may have a home advantage; however, for all the other countries and regions, the comparison across them should be fair.) While the number of patents granted to Chinese applicants each year has increased significantly from the single-digit levels prior to the mid-1980s to 5,928 in 2013, it is still way behind those of the U.S. and Japan and other countries and regions.

Chart 5: Annual Number of Patents Granted in the United States:  
G-7 Countries, 4 East Asian NIEs & China



Even though China has the largest number of internet users of any country in the World, in terms of penetration rates, defined as the percentage of the population who are internet users, China, at almost 50% in 2013, still lags far behind the developed economies of the U.S., Germany and Japan, as well as the newly industrialized economies of South Korea and Taiwan, where the penetration rates are all around 80% (see Chart 6).

Chart 6: The Number of Internet Users as a Percent of the Population in Selected Economies



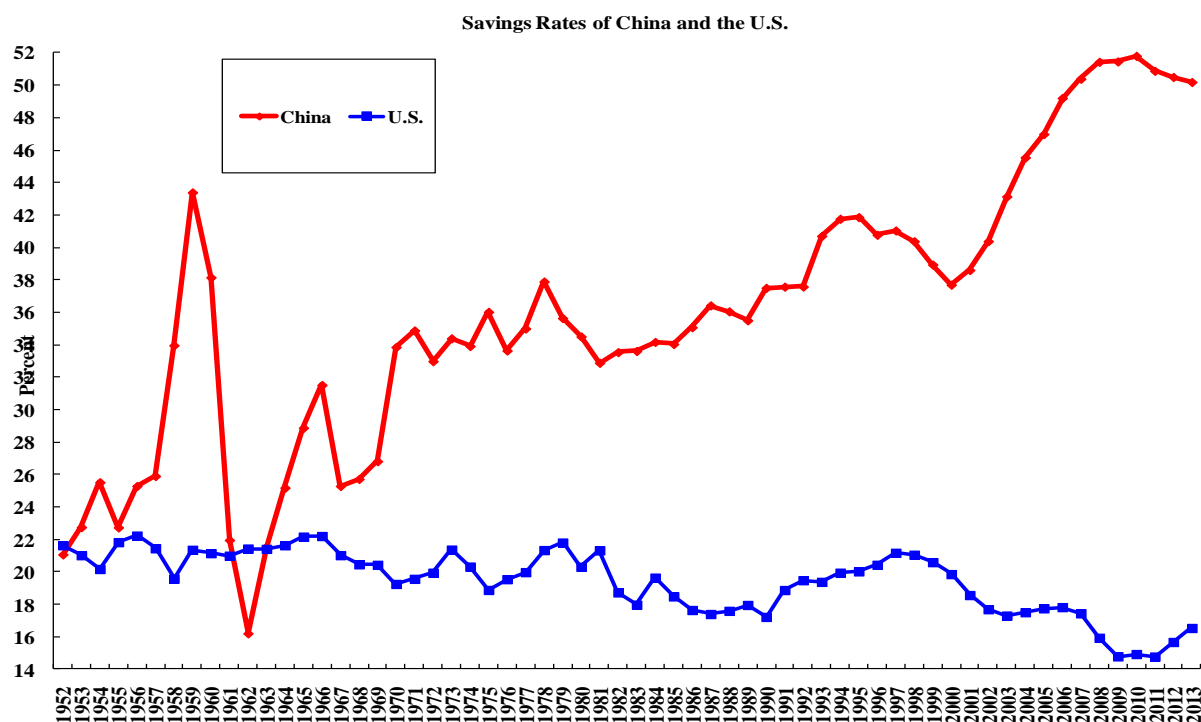
However, even though China is not quite ready for G-2, very few countries want to be on the wrong side of both China and the U.S. at the same time. Russia is now on the wrong side of the U.S., because of Ukraine and other matters, but it is not on the wrong side of China. Japan is arguably on the wrong side of China right now, because of the Diaoyu Islands, but it continues to be very friendly with the U.S. And Vietnam is beginning to become friendly with the U.S., after decades of enmity, while its relationship with China is strained because of the South Sea Islands. It may be advantageous for North Korea to try to be friendly to both China and the U.S. The point is that no one wants to offend both China and the U.S. at the same time. Many global problems can be solved or resolved if the two countries, the U.S. as the largest developed country, and China, as the largest developing country, can cooperate and work together, because nobody wants to offend or oppose both countries at the same time. Together, they can indeed provide the leadership that is necessary to move the world forward.

#### 4. The Economic Complementarities between China and the U.S.

Let us consider briefly the economic complementarities between China and the U.S., which were discussed in our report. Simply put, there is economic complementarity if a factor is in excess supply in one country and in excess demand in the other, so that in principle, the excess demand can be satisfied by the excess supply if the two countries can work together and everyone will be better off.

The first economic complementarity is in saving rates. China saves too much and the U.S. does not save enough. China has a saving rate of close to 50% compared to that of the U.S. of around 20% (if R&D expenditures are also counted as savings) (see Chart 7). So there is a great deal of room for mutually profitable arbitrage. Excess savings in China can be more productively invested in the U.S., where the rate of return is higher. This brings net economic benefits to both countries.

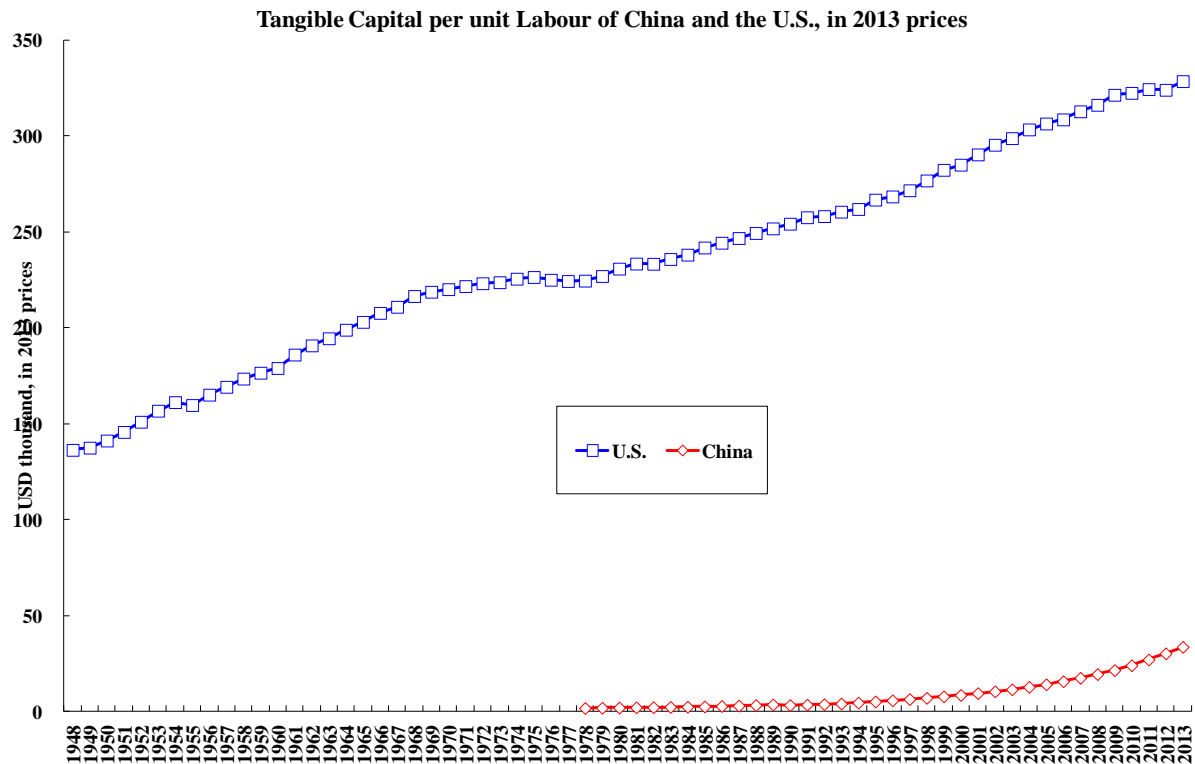
Chart 7: Saving Rates of China and the U.S., 1952-present



The second economic complementarity is in relative tangible capital intensity. China has an abundance of surplus labor, and the Chinese capital-labor ratio is still very low relative to the U.S. despite its much higher investment rate. The Chinese tangible capital stock to labor ratio was less than US\$34,000 per person in 2013, compared to almost US\$330,000 for the U.S. (see Chart 8). So basically, the U.S. can specialize in relatively capital-intensive industries and also technology-intensive industries whereas China can specialize in relatively labour-intensive industries.



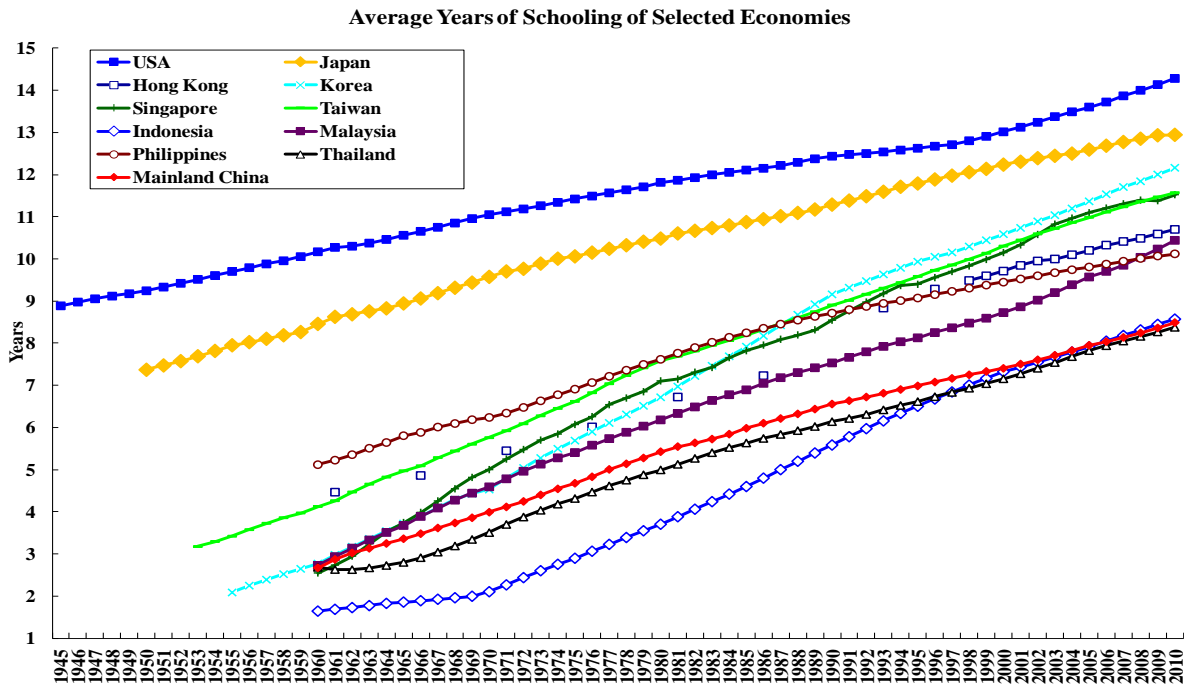
Chart 8: Tangible Capital per Unit Labour of China and the U.S., 2013US\$



The third economic complementarity is in arable land per person. The arable land per person in the U.S. is approximately 0.5 hectare per person, compared to 0.08 hectare per person in China in the 2010-2012 period. This suggests that there is a great deal of room for mutually beneficial long-term trade in agricultural commodities, with the U.S. exporting to China, especially given the shortage of water for irrigation in China.

The fourth economic complementarity is in human capital. In terms of number of years of schooling per person in the population, China, with an average just over 8 years, is way behind the U.S. with an average of more than 14 years (both in 2010) (see Chart 9). It took the U.S. 65 years to increase from approximately 9 years per person in 1945 to over 14 years per person in 2010. It will probably take a similarly long period of time, more than half a century, for China to catch up to the level of human capital of the United States.

Chart 9: Average Number of Years of Schooling of Selected Economies (1945-present)



The fifth economic complementarity is in energy. The U.S. is rapidly becoming a net energy exporter, if it isn't one already. China, on the other hand, has to import more than half of its oil and will continue to be a major energy importer for many years to come. So once again, there is room for mutually beneficial long-term cooperation.

The sixth economic complementarity is in science and technology. By any measure, such as citation indices, number of Nobel Laureates, patents granted, etc., the U.S. is still way ahead of China in terms of innovative capacity. This will likely continue to be the case for a couple of decades.

The seventh economic complementarity is in demographics. The Chinese population is aging fast whereas the U.S. has a constant influx of young immigrants. Thus, now is the time for China to invest its savings in the U.S. so that a couple of decades later, pensioners in China can start receiving dividends from their U.S. investments to support their retirements.

I believe there are many additional economic complementarities between the two countries both countries that have not been sufficiently exploited.

## 5. Our Proposals—Adopted and Implemented

Next, let us take a look at some of the proposals that we have made in our Report. First, let us talk about proposals that have been adopted or are in the process of being adopted and implemented. The first such proposal is on **Climate Change**. We were all very pleasantly surprised that President Xi Jinping and President Barack Obama were able to agree on a climate change agreement between the two nations. Under this agreement, China committed to capping its carbon emission by the year 2030. The U.S. also made commitments to reduce its carbon emissions. Without the agreement between the two largest energy-consuming nations, it is not possible to reach a global agreement on ameliorating climate change. But with both China and the U.S. behind this agreement, there is a very good chance that the world can come to some agreement on trying to prevent the potential damages of climate change.<sup>2</sup>

<sup>2</sup> As a result of the Xi-Obama agreement, negotiators from 196 countries around the globe were able to reach a climate change agreement in Lima, Peru, that would, for the first time in history, commit every nation to reducing its rate of greenhouse gas emissions, helping to stave off the dangerous and costly early impacts of global warming. A climate change accord is expected to be signed by world leaders in Paris in 2015.

The second is on **World Trade and the Reduction of Tariffs on Technology Imports**. It is a huge deal. And with both the U.S. and China behind it, there is an excellent chance that India, the last major holdout, might accept it.<sup>3</sup>

The third is on **Tourism**. One of the speakers today, Professor Fan Gang, is already a major beneficiary of the 10-year, multiple-entry visa recently made available to Chinese nationals for visiting the U.S. The agreement is reciprocal, so that U.S. visitors to China would also be granted ten-year multiple-entry visas. Students of both countries studying in the other country will now be granted five-year multiple-entry visas and no longer have to worry about whether they can return to complete their studies if they go home for a visit. The reciprocal visa agreement is a big deal and a huge step forward. I hope that in time, we shall be able to achieve visa-free entry for the citizens of both countries wanting to visit the other. Visa-free entry for both Chinese citizens going to the U.S. and U.S. citizens coming to China will not only increase tourism but will facilitate bilateral investment and trade and cultural and educational exchanges. The experiences from Japan, Korea, and Taiwan with the implementation of visa-free entry suggest that the number of tourists would increase by 30 percent immediately thereafter. It would do wonders to the hotel industry, the restaurant industry, the retail industry and other service industries in the U.S.

The fourth is on the strengthening of **Intellectual Property Rights Protection** in China. One of the policies we proposed in our original Report is the establishment of a national intellectual property rights court that has jurisdiction over the entire country. This is something that was mentioned in the 3<sup>rd</sup> plenum of the Eighteenth Central Committee of the Chinese Communist Party in 2013, and then mentioned again in the 4<sup>th</sup> plenum in November 2014. Such courts will be established in Beijing, Shanghai and Guangzhou. And if one thinks about it, the establishment of such a national intellectual property rights court is not only good for the U.S., but also good for China, because it will protect intellectual property rights no matter what nationality the inventor has, and will thus encourage and promote even greater innovation. This is major progress.

The fifth is on **Foreign Direct Investments** into China. In our report we advocated the use of a negative list approach, meaning that any direct investment that is not explicitly mentioned on the negative list will be allowed, instead of the pre-existing positive list approach. A positive list means that only those direct investments explicitly mentioned on the positive list are allowed. It thus makes a huge difference whether a negative or a positive list approach is adopted. Some would argue that the existing negative list is too long. Yes, it is too long, but at least it is a negative list instead of a positive list and there is good reason to believe that the list will be shortened over time. I think this represents real progress.

## 6. Our Proposals in Progress

And this leads us to several of the proposals in our Report which are still in progress. One of our proposals is a **Bilateral Investment Treaty** between China and the U.S. I believe this will be beneficial for both China and the U.S. China, with its excess savings, needs a place for investment and to park its money for the next 10 to 20 years, until the Chinese people need their pensions. The U.S. firms also have many advantages as direct investors in China. They have patents, technologies, and innovative business models. They are interested in investing in the huge Chinese domestic market. So a bilateral investment treaty should be good for both sides.

A second proposal is on **Infrastructural Investment**. This is an area in which Chinese savings can be very helpful and productive to the U.S. if it can be appropriately channeled to the U.S. Visitors to the U.S. today cannot help but notice that much of the public infrastructure--airports, bridges, railways and roads--are in need of substantial repairs. They are more than thirty years old and have fallen to third world standards by now. Chinese savings can provide the financial resources to support long-term investments in public infrastructure in the U.S. Mr. C. H. Tung, Chairman of the China-U.S. Exchange Foundation, has made special efforts to promote Chinese investment in U.S. public infrastructure, and I think we ought to push these investment projects. What is needed in the U.S. economy today is not lower interest rates and easier money, but rather an increase in the real aggregate demand, which these public infrastructural projects can provide.

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<sup>3</sup> Unfortunately, the tariff reduction agreement was aborted at the last minute by disagreement between China and the Republic of Korea.

A third proposal is on **Agricultural Trade**. China has a huge demand for agricultural commodities of various types: grains, meat (beef, chicken and pork), cotton, etc. Right now, China is the largest importer of corn and soybeans in the World. There is really no reason why China should import corn and soybeans to feed its cattle and pigs. China might as well import the beef and the pork directly from the U.S. where there is much more space for raising livestock and the method is much more hygienic. In order for this to happen, there needs to be some long-term arrangements that would protect the interests of American farmers, so they would expand their production, as well as the interests of Chinese consumers who are concerned with food security and affordability. If such long-term arrangements can be made, there would be huge benefits for both countries.

A fourth proposal is on the **China-U.S. Free Trade Area**. This is a concept being promoted by the China-U.S. Exchange Foundation, which has sponsored a separate study on it. It is beneficial to both China and the U.S. to have a free trading area given their significant economic complementarities. The benefits of a free trade area between two countries are maximized the more economically complementary and the less economically competitive they are. A China-U.S. Free Trade Area does not have to be in conflict with the proposed Trans Pacific Partnership (TPP). It could be part of the TPP, or it could be somehow incorporated in TPP. In general, the more free trade between the two countries and the lower the tariffs between the two countries, the better. What we really want to do is to create the conditions under which both economies can become more and more interdependent in a mutually beneficial way. I think that is really the way to move the relationship between China and the U.S. forward.

## 7. Projections of the Future

The Chinese economy has been slowing down from an average annual rate of growth of almost 10% to a little above 7%. It is, however, still a very high rate of growth, especially when compared to other major economies. Can the rate of economic growth of 7% be sustained? I believe so.

First, China is already the largest exporting nation in the World in terms of goods. Both its currency exchange rate and its wage rate have been rising. Growth of exports is therefore unlikely to be a principal source of growth of Chinese aggregate demand going forward. Second, there is already overcapacity in many Chinese manufacturing industries: steel, cement, glass, ship-building, aluminium, solar panels, you name it. There is excess capacity almost everywhere. The average capacity utilization rate in China today is around 70%, which indicates that there is significant excess supply. In addition, there is excess supply of residential housing units in almost all the cities, especially in the second-, third-, and fourth-tier cities. So going forward, it would be a waste to make more investments in these areas. Thus, the growth of aggregate demand will have to come from other than growth of exports and fixed investment in manufacturing and residential housing.

So, where is the growth of Chinese aggregate demand going to come from? I think it really comes down to three possible sources. The first is Household Consumption, which we talked about earlier. But household income in China is still very low and is less than 50% of GDP. So even if households don't save at all, household consumption is not going to become the dominant component of GDP for a long time. The second is what I call Public Goods Consumption, including investment in public goods consumption. China has huge demands for basic education, healthcare, elderly care, environmental control, preservation and restoration, etc. China needs to clean the air, the water, and the soil. All of this requires resources and inputs. One can create many jobs and a great deal of GDP by providing these public goods, and that will be very popular with the people. Moreover, all of the public goods consumption has a very important effect, that is, it is de facto equalizing the income distribution, because someone very wealthy and someone very poor all breathe the same air and drink the same water. Finally, a third source of aggregate demand is Public Infrastructural Investment like high-speed railroads, but more importantly, urban mass transit systems. The last thing anyone wants to see, from the point of view of preventing global climate change, is a car in every garage in China. That would be a nightmare for China and the World. If Chinese people want to have cars, we hope that they don't drive them regularly. The key to the reduction of the use of cars is to provide good urban mass transit systems. If we look around China, there must be somewhere between 70 and 100 cities with a population of 2 million or above. And they can all use mass transit systems, which do not all have to be underground. What we want to make sure is that people can go to work and return home every day without having to use a car. (Even electric cars use energy.) And to promote and build urban mass transit systems, government urban planning at

the local level is needed. Otherwise they will never happen. Similarly, urban slum clearance is another type of public infrastructural project which requires local government leadership. So I think these are the sources of growth of Chinese aggregate demand in the next few years.

Now, let us look at our projections of the future. I am an optimist. I expect current economic trends to continue--the Chinese economy will grow at an average annual rate of around 7% and the U.S. economy is projected to grow at an average annual rate of around 3.5%. It will then take another 15 years or so, just before 2030, for Chinese real GDP to catch up to the level of the U. S. real GDP. In the meantime, the U.S. economy will still be the largest in the World. By that time, the Chinese real GDP per capita is projected to exceed US\$21,000 (in 2013 prices), and thus way past the so-called “middle-income trap,” but which would still be only a quarter of the projected then U.S. real GDP per capita of US\$83,600. It will take a further 30 years, until around 2060, for Chinese real GDP per capita to reach the same level as that of the United States.

Chart 10: Actual and Projected Chinese and U.S. Real GDPs and Their Rates of Growth

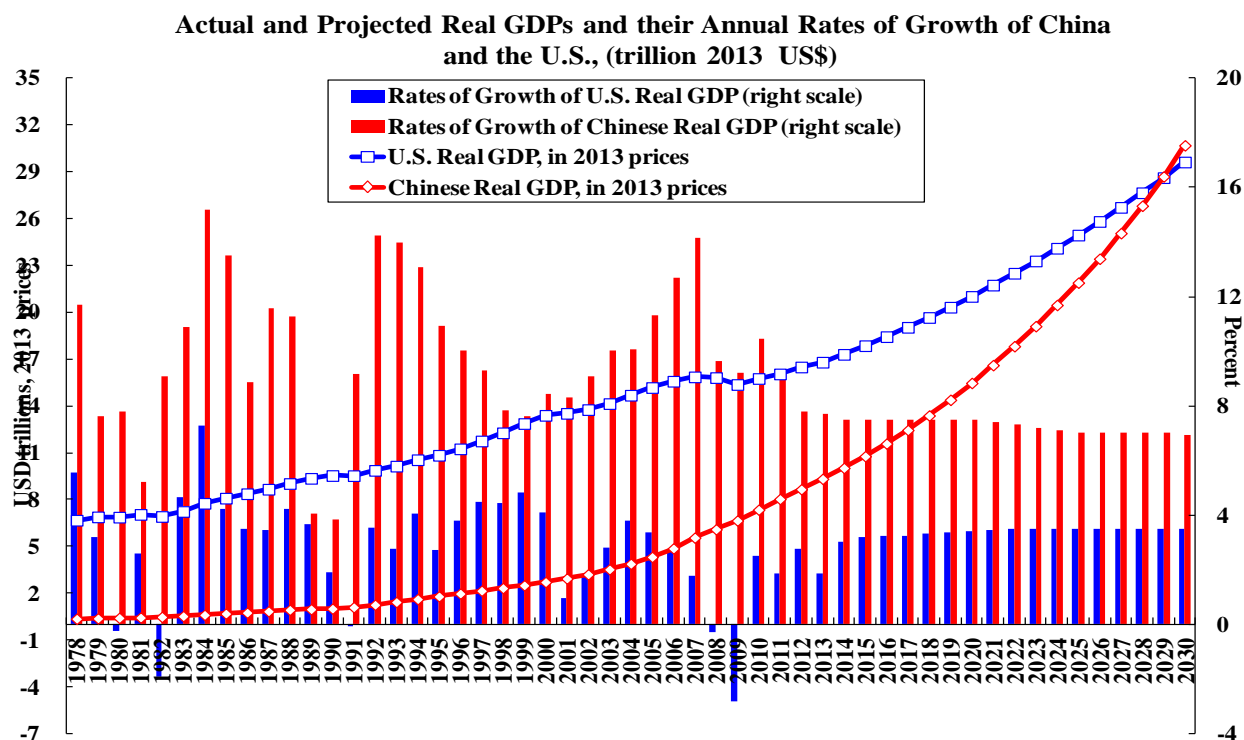
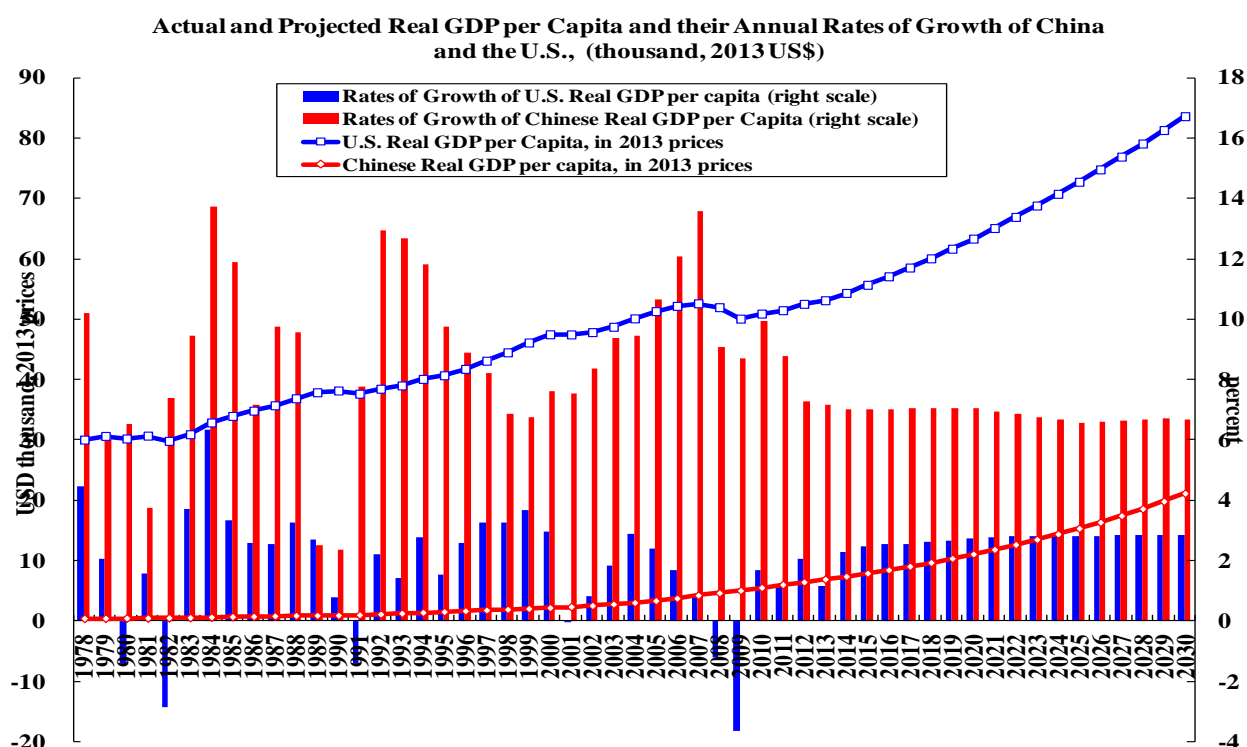


Chart 11: Actual and Projected Chinese and U.S. Real GDP per Capita's and Rates of Growth



## 8. Concluding Remarks

Let me close on that optimistic note. I am quite confident that the Chinese economy will be able to grow at an average rate of around 7% per annum for the foreseeable future. And I am also very confident about U.S. economic growth. The U.S. economy is coming back strongly, and I think it can grow at an average rate of 3.5% per annum also for the foreseeable future. While the two countries' growth rates differ, but considering that the U.S. GDP is about twice of the Chinese GDP, the absolute growth is actually about the same.

There are huge additional opportunities for win-win economic cooperation between China and the U.S., as discussed in our study. However, the relations between the two countries must be carefully managed. We are very pleased that like-minded people in both China and the U.S. have agreed with us and push forward on possible areas of win-win cooperation. We hope that this is just the beginning, and that there is much more to come. Economic cooperation and interdependence can provide the foundation of a sustainable, friendly relationship between the two major powers which will contribute directly to a lasting world peace.