

Part I

A. Seizing the Moment

The opportunity of a generation

The bilateral economic relationship between the U.S. and China has developed over the past few decades from virtually nonexistent to the most important in the world. Today, the U.S. and China are respectively the largest and second largest economies and the largest and second largest trading nations in the world. They are also each other's second largest trading partners. A vast volume of trade in goods, integrated supply chains, a growing volume of trade in services, substantial direct American investment in China and even larger Chinese investment in U.S. Treasury securities, speak to the importance of the relationship.

Looking forward, basic economics predicts that bilateral trade will grow roughly in proportion to the sizes of the two economies, so it is not surprising that trade in goods and services between China and the U.S. is voluminous, and is predicted to grow along with their economic growth. If the U.S. and China are to continue to reap, indeed enhance, the mutual benefits of that trade, the two nations must work cooperatively to seek out new opportunities.

The purpose of this study is, first, to put the U.S.-China relationship in the current, and naturally evolving, economic context; and second, to suggest potentially fruitful areas and approaches to strengthen it, both by seizing opportunities and ameliorating disputes. Better understanding of the economic context, it is hoped, will contribute to a constructive way forward in the world's most important bilateral economic relationship.

Both countries want to establish a pattern of se-

cure, high-quality, sustainable growth and employment for their people, and this study demonstrates that the bilateral relationship, built and adapted well over time, can make a material contribution to that shared goal.

Our path forward begins with an acknowledgment that the development of the overall relationship between the two countries is constrained by mistrust and differences on important global strategic issues. It is therefore imperative that mutual trust be built-up and strategic differences be managed and addressed. Building mutual trust will take time; but the differences should not be allowed to stand in the way of closer economic cooperation between the two countries.

Additionally, the business sectors of both countries have identified difficulties and impediments to expanding the economic relationship between them. On the U.S. side, the issues include the role of the state-owned enterprises (SOEs) in the Chinese economy (and state banks as providers of finance), market access into China, protection and enforcement of intellectual property rights (IPR), and cyber security (and in particular, theft of commercial secrets). Chinese complaints include restrictions on U.S. exports of high-technology products to China and U.S. government actions that often appear arbitrary and protectionist in the areas of both trade and investment.

These issues are real, and relevant to expanded economic engagement. In a commercial relationship as extensive and dynamic as that between the U.S. and China, there will be points of contention and concern. Candor in recognizing them, and a commitment to resolving them, is a sign of the



maturing of the relationship. For these issues to be resolved, the two governments need to face them squarely. It is a difficult task, and will take time, but it must be done.¹

However, it would be impossible for this study to adequately, and in a timely manner, address these issues. Rather, the purpose of this study is to focus on the future potential of an enhanced economic relationship through cooperation. Successful cooperation by the two countries will not only bring economic benefits to the two peoples, it will also help build the trust between them. In that same spirit, we fully recognize that a lack of progress in solving these issues will have an adverse effect on deepening economic engagement.

Before moving on to the future, let us begin with some history. Forty-one years ago, President Richard Nixon of the U.S. and Chairman Mao Zedong of the People's Republic of China seized the moment to allow the two countries to collaborate against Soviet hegemony. The two leaders understood the strategic importance of the U.S.-China relationship to both countries. Their collaboration changed the world.

On 15 December 1978, the U.S. and China agreed to establish formal diplomatic relations. Three days later, China announced that it would undertake economic reform and open its economy to the world. Since then, there have been six presidents of the U.S. and four generations of leaders of China. Throughout these four decades, they have all tried to build a strong and durable U.S.-China relationship. Despite many ups and downs over the past decades, the relationship on the whole has endured. With the dissolution of the former Soviet Union in 1991, the foundation of the U.S.-China relationship shifted to economics. Indeed, both countries have benefited a great deal from their economic relations.

However, the Chinese economy has now reached a critical juncture: it must change the model of devel-

opment it has followed for more than three decades – from export led to internal-demand (including consumption) led and from input driven to innovation driven. Moreover, decades of sustained increases in income and wealth have also begun to make China an increasingly important and rapidly growing constituent part of the 'world's market', in addition to being the 'world's factory', and an important source, as well as a destination of cross-border investment. China will have to play a rather different role in the world economy. Adapting to these new realities poses enormous challenges to China. Indeed, the next ten years will be a decade of change in China. The U.S. economy, recovering from the most severe global financial crisis in recent history, also has to begin to make significant structural adjustments to lower its budget deficit and its trade deficit, and at the same time try to reduce its high unemployment rate. But it still has the advantages of being the most innovative and the most technologically advanced country in the world as well as having access to low-cost energy in the form of shale oil and gas. Indeed, the next ten years will also be a decade of change in the U.S.

The U.S. and China are likely to remain the world's two largest economies for decades to come. President Barack Obama was just re-elected for a second term. Xi Jinping – elected General Secretary of the Chinese Communist Party in November 2012 and President of China in March 2013 – will lead China for the next ten years. The U.S. and China must realistically confront the challenges facing them, including those arising between them and internally from the dislocations that are often a by-product of economic progress, including growing international trade and investment. Closer economic cooperation between the U.S. and China can help promote economic growth and job creation in both countries. The two countries need to seize this moment to lay the foundations for closer economic cooperation over the next ten years.

The two countries also face many common challenges, such as nuclear proliferation, global terror-

¹ Many of these issues are summarized in Chapter 6 and discussed in various chapters in Part II.

US-CHINA ECONOMIC RELATIONS IN THE NEXT TEN YEARS:

Figure 1: The Real GDP of China and the U.S., 1978-2012

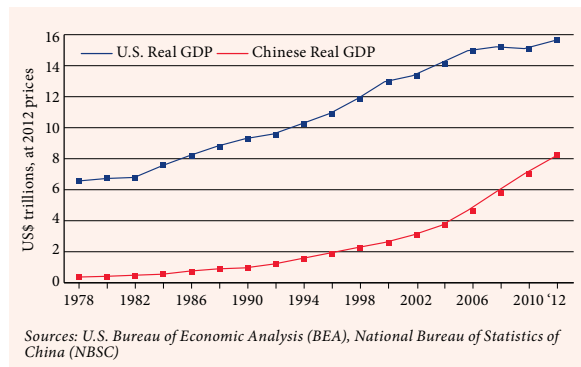
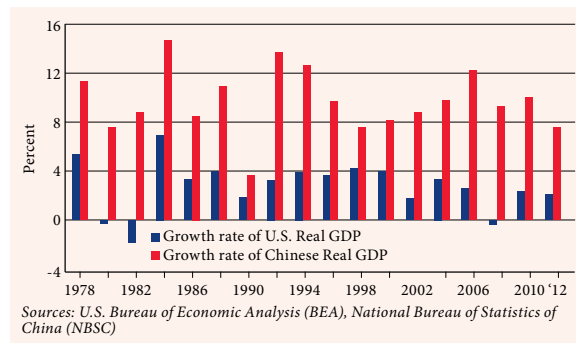


Figure 2: The Annual Rates of Growth of the Real GDP of China and the U.S., 1978-2012



ism, sustainability and climate change. Working together, the U.S. and China will have a better chance to successfully overcome these challenges, not only for their own mutual benefits, but also for the long-term peace and prosperity of the world. Given the degree of economic interdependence in the world today, the economic losses caused by the two countries working against each other can be huge for themselves as well as for all other nations.

A study with a difference

This study, involving eminent scholars and business and community leaders from the two countries, focuses on the future, while recounting the past. It recognizes the benefits derived and costs incurred by the U.S. and China from their past economic exchange and interactions. Moreover, it also identifies the fundamental economic complementarities between the two countries, which provide a solid basis for mutually beneficial and sustainable economic cooperation over the long term. Furthermore, we recognize that the search for mutually beneficial areas of cooperation between the two countries is best done in the context of a mutual understanding of the tremendous challenges faced by each in restoring and sustaining inclusive patterns of economic growth and employment in their respective countries.

Finally, this study also pinpoints the opportunities for the U.S. and China to cooperate in the

provision of global public good to the world. For example, as the two largest carbon dioxide emitters, ameliorating the risks of climate change; and, as the two largest trading nations, further enhancing the multilateral trading system (through the Doha Round), are obvious areas that the U.S. and China should work cooperatively to lead global solutions.

B. Stepping Back

The development of the bilateral economic relations

1978 marked the beginning of China's push for economic reform and opening up to the world. It also marked the end of an era of chaos and stagnation in China, wrought by the decade-long Great Proletarian Cultural Revolution. Since then, China has made tremendous progress in its economic development. Between 1978 and 2012, Chinese real gross domestic product (GDP) grew from US\$341bn to US\$8.262tr (at 2012 prices) to become the second largest economy in the world, after the U.S. (see Figure 1).

The China of today is a very different place. Since 1978, central planning has largely given way to market forces. A modern physical infrastructure has been built. A compulsory free nine-year education has been introduced for all school-aged children. Healthcare and social security have become more widely available. Above all, hundreds of millions of Chinese people have escaped abject poverty

and secured a much-improved livelihood. In these 35 years, a closed Chinese society has become much more open. A new generation of Chinese – more educated, more globally connected and more environmentally conscious – has emerged.

In 1978, the U.S. economy was still recovering from the first oil shock of 1973, during which the price of oil quadrupled. One year later, it would be struck by the second oil shock. The two oil shocks led to high inflation and interest rates in the late 1970s and early 1980s. Inflation was finally brought down by the mid 1980s, accompanied by the decline in the real price of oil. This led to the longest period of economic expansion in U.S. history, further abetted by the internet boom beginning in the 1990s. U.S. economic growth continued, with brief interruptions, until 2007, when the global financial crisis, triggered by delinquencies of the sub-prime mortgage-loans, broke out. Since then, the U.S. has been in the process of a gradual, but by historical standards very slow, economic recovery. Nevertheless, between 1978 and 2012, U.S. real GDP grew from US\$6.54tr to US\$15.68tr (at 2012 prices), at an average annual rate of 2.6% (see Figure 2), which is among the highest within the Group of Seven (G-7) developed economies.

Individual incomes are a different story. The Chinese economy is large, in part because its population is large – more than four times that of the U.S. Despite ranking second in the world by GDP, China is ranked outside of the top 80 in terms of GDP per capita – it is still very much a developing economy. Between 1978 and 2012, Chinese real GDP per capita grew from US\$354 to US\$6,102, (at 2012 prices), at an average annual rate of 8.7%. By comparison, the U.S. real GDP per capita at 2012 prices grew from US\$29,390 to US\$49,880, more than eight times Chinese GDP per capita in 2012, at an average annual rate of 1.6%. A huge gap still exists between the per capita GDPs of the two countries (see Figure 3). It is also worth noting that Mainland Chinese real GDP per capita still lags significantly

Figure 3: The Real GDP per Capita of China and the U.S., 1978-2012

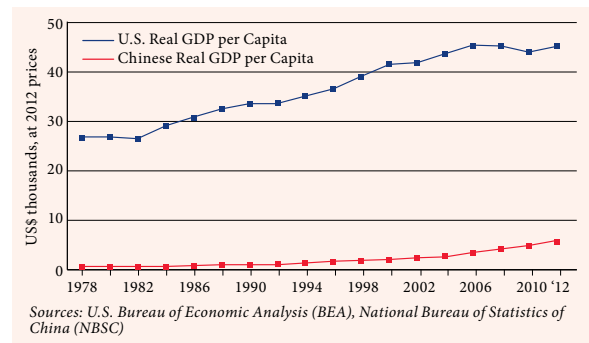


Figure 4: The Real GDP per Capita of Selected East Asian Economies, 2011

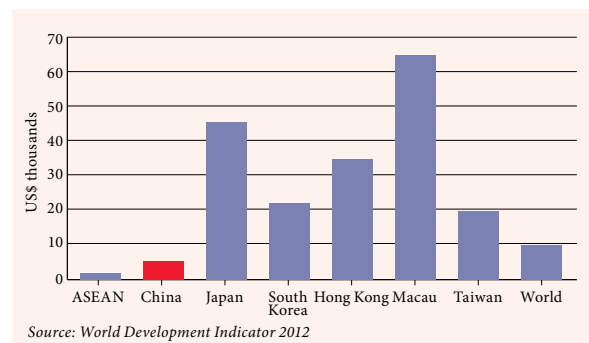
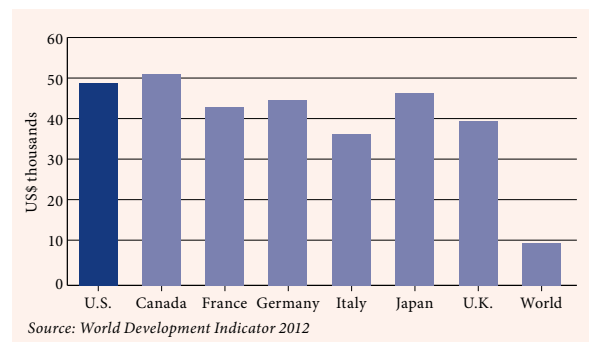


Figure 5: The Real GDP per Capita of the G-7 Economies, 2011



behind the real GDPs per capita of other East Asian economies such as Hong Kong, South Korea, Singapore and Taiwan (see Figure 4), while U.S. GDP per capita remains significantly higher than all the other G-7 countries except Canada (see Figure 5).

Between 1978 and 2011, Chinese real personal consumption per capita grew from US\$168 to US\$1,911 (at 2011 prices). However, as a percentage

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Figure 6: A Comparison of the International Trade of the U.S. and China, 2011-12

	China (US\$ billions)		USA (US\$ billions)	
	2011	2012	2011	2012
Exports of goods	1,904	2,049	1,497	1,564
Imports of goods	1,660	1,818	2,236	2,299
Total trade of goods	3,564	3,867	3,733	3,863
Exports of services	183	197	606	632
Imports of services	238	261	427	437
Total trade of services	421	457	1,033	1,069
Exports of goods and services	2,087	2,246	2,103	2,196
Imports of goods and services	1,898	2,078	2,663	2,736
Total trade of goods and services	3,985	4,324	4,767	4,932
Trade surplus in goods and services	188	167	-560	-540

Sources: U.S. Bureau of Economic Analysis (BEA), National Bureau of Statistics of China (NBSC)

of GDP, Chinese personal consumption actually declined from 48.4% to 34.4%². By comparison, the U.S. real personal consumption per capita at 2011 prices grew from US\$17,769 to US\$38,269 – more than 20 times the Chinese level. U.S. personal consumption was 70.9% of U.S. GDP in 2011. The gap between the real personal consumption per capita of the two countries is even larger than that of real income per capita. Given the low Chinese consumption to GDP ratio, there is considerable room for Chinese personal consumption to grow. In fact, continued Chinese growth depends on consumption growing as a share of its national income.

In 1978, before the reform and opening of the Chinese economy, Chinese international trade in goods and services combined was a mere US\$20.3bn, whereas the U.S. was already – and still is – the largest trading nation in the world, with a total trade that year of US\$399.2bn. Starting from its very low base, Chinese international trade initially grew by leaps and bounds, but mostly through imports. It was only in the 1990s that Chinese international trade began to grow steadily, with its exports

aided by a significant devaluation of the renminbi (the Chinese currency) on 1 January 1994 and the granting of (non-permanent) most-favored-nation status by the U.S. China's trade growth picked up significantly after its accession to the World Trade Organization (WTO) in 2001, and accelerated further after the expiry of the quota system of trade in textiles under the MultiFibre Arrangement in 2005. By 2012, China, with a total trade in goods and services of US\$4.3tr, has become the second largest trading nation in the world, just after the U.S. with US\$4.9tr, as well as the largest exporting nation (see Figure 6)³. However, the domestic value-added content of most Chinese exports remains relatively low with an average value of approximately 23.7% in 2011⁴. The domestic value-added content is expected to rise in the future as the proportion of 'processing and assembly' exports in total exports declines. It is also anticipated that going forward, Chinese exports are likely to slow while its imports are likely to speed up for a variety of reasons, both internal and external⁵.

During the same period, the growth of U.S. international trade has been slower but steadier, both because of its much larger base and because it has long been a founding member of the WTO (and its predecessor organization, the General Agreement on Tariffs and Trade (GATT)). Growth in U.S. international trade was interrupted only by the bursting of the internet bubble in 2000 and the global financial crisis of 2007-2009. However, beginning in 1997, the U.S. trade deficit vis-a-vis the world began to grow. Nevertheless, the U.S. remains the largest trading nation in goods and services combined in the world today (see Figure 6).

In Figure 6, the international trade of the U.S. and China with the world in 2011 and 2012 are

2 Chinese personal consumption data for 2012 are not yet available. The Chinese real GDP per capita were US\$346 and US\$5,555 (at 2011 prices) in 1978 and 2011 respectively.

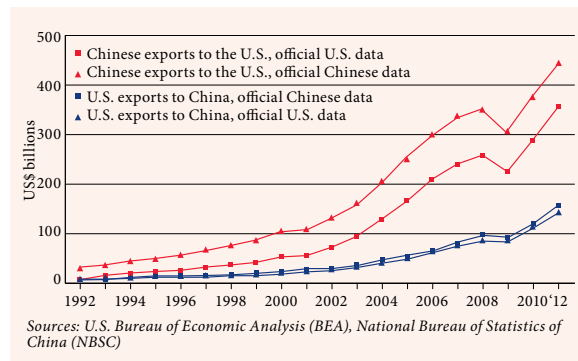
3 In 2012, China was actually the largest trading nation in the world in terms of goods alone, by a very small margin, but not in terms of goods and services combined (see Figure 6).

4 The domestic value-added content of Chinese exports to the U.S. is even lower: 22.0% in 2011.

5 Refer to the discussion in Part II, Chapter 8.



Figure 7: The Levels of U.S.-China Bilateral Trade in Goods and Services, 1992-2012



compared⁶. The U.S. is also the largest trading nation in the world in services. It is interesting to note that the U.S. trade deficit vis-a-vis the world has been much larger than the Chinese trade surplus vis-a-vis the world. For example, in 2012, the U.S. deficit was US\$540bn, compared to a Chinese surplus of US\$167bn. Moreover, the Chinese trade surplus with the U.S. (US\$201bn or US\$299bn in 2012, according to Chinese or U.S. data respectively) has been larger than its trade surplus vis-a-vis the world, indicating that China has been running a trade deficit with the rest of the world (see Figure 7).

Trade between the U.S. and China has grown by leaps and bounds since 1978. According to Chinese official data, Chinese exports of goods and services to the U.S. grew from US\$9.65bn in 1992 to US\$364bn in 2012⁷. According to U.S. official data, the corresponding numbers are US\$27bn and US\$446bn⁸. Similarly, according to Chinese official data, U.S. exports of goods and services to China grew from US\$10.5bn in 1992 to US\$163bn in 2012, whereas according to U.S. official data, the corre-

sponding numbers are US\$9bn and US\$14bn. The Chinese trade surplus with the U.S. in 2012 was US\$201bn according to Chinese official data and US\$299bn according to U.S. official data. In Figure 7, the annual levels of bilateral U.S.-China trade according to Chinese and U.S. official data are presented. Both sets of data confirm the historical facts of a very rapid growth in bilateral trade since the early 1990s and a large bilateral trade surplus on the part of China. Interestingly, U.S. exports to China have grown more rapidly than China's exports to the U.S. since the middle of the last decade. This trend is expected to continue, given that Chinese internal demand, including consumption, will become the principal driver of Chinese economic growth going forward and the relatively slow growth of the U.S. economy.

Global factors

Looking back, both the U.S. and China have indeed achieved a great deal since 1978. Their economic prosperity over the past 35 years has been in no small part due to favorable global factors.

First, during this period, apart from some localized conflicts, the world at large has been basically at peace, which has allowed steady economic development. The demise of the former Soviet Union has also created a peace dividend to be shared by all.

Second, there has been a revolution in information and communication technology, led by the U.S., which makes possible the instantaneous availability of information everywhere and direct and immediate communication not limited by either space or time. Information transmission has also become much more affordable. This has resulted in significant reductions in the transactions costs of doing business across national boundaries and long distances, which not only facilitate the trade in goods, but also enable many non-tradable services to become tradable. Even very complex production processes can be profitably fragmented or 'atomized' – subdivided into many sub-processes each to

⁶ The 2012 numbers are tentative as the trade in services numbers are not yet available and have to be estimated.

⁷ Ibid.

⁸ There are many reasons for the statistical discrepancy between the U.S. and Chinese official data. It has to do with the different ways in which exports and imports are valued (financial assistance scheme or free on board versus cost, insurance and freight), with the different treatment as well as valuation of re-exports of Chinese products to the U.S. from Hong Kong, etc. See, for example, the discussion in K. C. Fung, L. J. Lau and Yanyan Xiong, "Adjusted Estimates of U.S.-China Bilateral Trade Balances: An Update," *Pacific Economic Review*, Vol. 11, No. 3, October 2006, pp. 299-314.

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be done in different locations where the costs are the lowest. In addition, the whole world has gradually become a single huge market, which greatly enhances the potential returns to innovation and brand-building. Both the U.S. – which is responsible for most of the advances in the information and communication technology and the inventions of new products and processes – and China, which, because of its low wage rate, has the comparative advantage at the final assembly stage of the global division and sub-division of labor, have turned out to be the major beneficiaries of this development.

However, the global division and sub-division of labor resulting from the fragmentation of production and the rise of global supply chains also imply that jobs that can be moved away to lower-cost locations will likely be moved away. The out-migration of lower-skilled jobs is a challenge not only for the U.S. but also, more recently, for China as well. Already, such jobs have begun to move away from China to Bangladesh, Cambodia, Indonesia, Vietnam and even to Myanmar. The division and sub-division of labor around the world also imply that the world economy has become more integrated and more interdependent than ever before.

Another implication of the information and communication technology revolution is the expansion of the senior management's span of control, resulting in the flattening of organizations and the elimination of the middle layers of management jobs. The combination of lower-skilled jobs moving away and the loss of middle-level management jobs mean sluggish wage growth, especially at the middle or lower levels. Thus, the benefits of economic growth have not been evenly shared across the entire population of individual countries. This has been a major cause of the rising income disparity in many economies – developed and developing – and redressing these imbalances remains an important priority in all countries.

Third, the entry of new participants into the world economy such as China, Russia and the for-

mer Eastern European socialist economies, whether they are members of the WTO or not, has generated many new opportunities for the growth of world trade from both the supply and the demand sides. The deepening of economic cooperation within the euro zone and within the Association of Southeast Asian Nations (ASEAN) region has also provided new impetus for cross-border trade and direct investment and accelerated global economic growth. However, the entry of new participants has also implied the expansion of the world labor force, putting downward pressure on wage rates in the more developed economies around the world.

Fourth, the real prices of oil and other natural resources remained relatively subdued between the mid 1980s and the mid 2000s, which provided a favorable economic environment for growth.

Fifth, the distribution of the world GDP across the different regions has changed significantly over the past several decades. The share for East Asia (defined as the 10 members of ASEAN + 3 (China, Japan and the Republic of Korea)) of world GDP rose from just above 10% in 1970 to approximately 25% in 2012. If South Asia is included, the share rises to 30%. The Chinese share of world GDP alone rose from less than 2% in 1970 to over 10% in 2012. By comparison, the U.S. share fell from over 35% in 1970 to just over 20% of world GDP today. Europe's share also fell from 25% in 1970 to 20% today⁹. East Asian economies also account for approximately 25% of world trade today, compared to approximately 10% in 1970. Moreover, approximately 50% of the East Asian international trade today consists of trade within East Asia itself. This is what made it possible for the East Asian and Chinese economies to continue to grow, albeit at lower rates, even as the U.S. and European economies remained in recession. In fact, since the beginning of the global financial crisis in 2007, the Chinese economy has

⁹ The Europe of today covers many more economies than the Europe of 1970, principally because of the inclusion of formerly centrally planned economies of Eastern Europe. So its share of world GDP has actually declined much more than shown by the figures presented here.



been growing at an average annual rate of over 9%.

Finally, the Chinese state leaders also deserve credit for adopting the policy of economic reform and opening up, and persevering with it over the past 35 years. Throughout this period, they have also amply demonstrated their ability to confront important challenges and solve difficult problems, surviving various economic and financial crises including several global and regional financial crises.

How China and the U.S. have benefited

China has benefited enormously from its economic relationship with the U.S. throughout the past 35 years. When China began its economic reform and opening-up policies in 1978, the U.S. opened its market to Chinese exports, and the rest of the developed world followed. This enabled the early success of China's economic reform and opening-up policy. The granting of (non-permanent) most-favored-nation treatment to China by the U.S. in the 1990s and the successful conclusion of the negotiations for Chinese accession to the WTO in 2000 enabled Chinese international trade to grow significantly.

The large U.S. consumer market has been open to Chinese exports – apparel, home appliances, shoes, toys and all other kinds of light manufactured products. It has been estimated that for every US\$1bn of Chinese exports of goods and services to the U.S. in 2010, a value-added (GDP) of US\$0.573bn and non-agricultural employment of 38,930 person-years are created in China¹⁰. Chinese exports to the U.S. amounted to US\$293.2bn in 2010, resulting in the generation of an estimated US\$168bn of value-added, or 2.8% of Chinese GDP, and 11.8 million person-years of employment, or 2.4% of total Chinese non-agricultural employment¹¹. Chinese exports of light manufacturing primarily replaced exports from other East Asian economies such as Hong Kong, Tai-

wan, South Korea, Malaysia and Thailand¹². The U.S. has not been manufacturing these products in large quantities domestically for several decades. Thus, the net displacement of U.S. jobs by these Chinese exports has been less than is often claimed. Moreover, these light-manufacturing jobs have also begun to be relocated to other Southeast Asian economies from China because of its rising wage rates and increasingly more stringent enforcement of environmental regulations¹³.

The U.S. was an early direct investor in China, with the first direct investments being made in the mid 1980s. U.S. direct investment into China averaged approximately US\$3bn a year over the last decade. It not only brought in capital, but also technology, access to overseas markets, know-how, business models and management methods.

Chinese outbound foreign direct investment (FDI) is only at the beginning stage, but has been rising rapidly, from US\$24.8bn in 2007 to US\$77.2bn in 2012. Chinese direct investment into the U.S., which began at a very low level in the late 1990s, averaged approximately US\$1.4bn a year. Estimates of Chinese FDI to the U.S. range widely – for 2011, they range from US\$1.8bn according to the Chinese Ministry of Commerce to US\$4.3bn according to the U.S. Department of Commerce¹⁴. It is believed that currently it is of the same order of magnitude as the annual flow of U.S. FDI into China of approximately US\$5bn.

The stock of U.S. direct investment in China in 2011 was US\$54bn according to the U.S. and

10 These include not only the value-added and employment generated directly by the exports, but also the value-added and employment generated indirectly through the production of the domestic inputs used in the production of the exports.

11 Chinese GDP was US\$6.06tr (at 2010 prices) and Chinese total non-agricultural employment was 481.74 million in 2010.

12 See Jianguo Huo, "The Development of U.S.-China Economic Relations, 1978 to the Present", Part II, Chapter 1, for examples of various products for which increases in Chinese shares of U.S. imports have been matched by decreases in the shares of other East Asian economies.

13 Chinese factories have been legally required to have anti-pollution equipment installed for quite some time. However, some factories have not been using them. Recently, the enforcement of the use of the equipment has been stepped up in response to rising environmental consciousness on the part of both the government and the public in China.

14 The U.S. Department of Commerce figure is derived from the changes in the stock of FDI by country of ultimate beneficiary between 2011 and 2012. Otherwise the direct estimate given by the Department of Commerce for 2011 is US\$0.58bn. The Rhodium Group, a private firm, has estimated that the Chinese FDI into the U.S. in 2011 to be US\$4.6bn.

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US\$70bn according to China, much larger than the stock of Chinese direct investment in the U.S. (US\$9.5bn according to the U.S. and US\$9bn according to China)^{15, 16}. The U.S. direct investment in China also created significant employment opportunities for Chinese citizens. According to the U.S. Bureau of Economic Analysis (BEA), there were 1,189 U.S.-invested firms in China with total sales of US\$304bn and a net income of US\$39bn, and employing 1.541 million workers in 2010. According to the Research Institute of the Chinese Ministry of Commerce, U.S.-invested firms in China employed 1.842 million people and paid US\$14.9bn in taxes in 2010. Even though these numbers differ, the overall picture of U.S.-invested enterprises in China making tens of billions of dollars of profits and employing almost two million workers in China each year is probably reasonably accurate.

The U.S. has also benefited from this economic relationship. It has also been estimated that for every US\$1bn of U.S. exports of goods and services to China in 2010, a value-added (GDP) of US\$0.88bn and employment of 6,400 person-years are created in the U.S. U.S. exports to China amounted to US\$114.5bn in 2010, resulting in the generation of an estimated US\$100.8bn of GDP and 732,800 jobs. Chinese exports to the U.S. have been of adequate quality and low cost, which has helped to keep the rate of inflation low in the U.S. Besides exporting from China to the U.S., U.S. multinational corporations also make use of China, as the terminal point of their global supply chains, to produce finished products for delivery and distribution in China and the rest of the world. This has enhanced the competitiveness of the U.S. as well as other multinational corporations globally. U.S.-invested firms in China as a group have consistently made significant profits.

As the Chinese economy continues to grow, Chinese imports from the U.S. have also been increasing rapidly. Indeed, between 2000 and 2011, the value of U.S. exports to China has more than quintupled. Since 2006, China has replaced Japan as the third largest importing nation of U.S. goods and services (after Canada and Mexico, the other two members of the North American Free Trade Area (NAFTA)). In addition, the People's Bank of China, China's central bank, is now the largest holder of U.S. Treasury securities in the world, with US\$1.2tr. Its continuing net accumulation of such securities is one factor that has marginally helped to keep interest rates low in the world, including the U.S., and to maintain global financial stability.

Thus, the U.S.-China economic relationship has indeed been mutually beneficial to both countries.

C. Looking Ahead

The future outlook

The global economic environment has remained uncertain: the U.S. economic recovery has been slow and the euro zone seems to be lurching from one crisis to another. Even the other BRICS (Brazil, Russia, India, China and South Africa) economies have been showing strain.

China has set itself the goal of doubling its GDP per capita between 2010 and 2020 and attaining 'moderately well-off' status for all. Given its economic fundamentals – rapid growth of tangible capital and plentiful surplus labor – and its track record of macroeconomic management, China should be able to achieve its objective, which requires an average annual rate of growth of 7.5%, as long as it can maintain the growth of its aggregate demand, which would come from infrastructural investment, urbanization and increases in per-

¹⁵ The U.S. Department of Commerce's estimated stock of US\$3.8bn based on direct cumulation of direct investment data for year-end 2011 is too low in comparison with the other estimates to be credible.

¹⁶ According to International Monetary Fund (IMF) data, the stock of U.S. FDI in China in 2011 was US\$57.8bn, and the corresponding stock of Chinese FDI in the U.S. was US\$3.8bn.



sonal and government consumption^{17, 18}. Personal consumption is likely to become one of the major drivers of the Chinese economy, spearheaded by a growing middle class, which is projected by McKinsey & Company to increase from 230 million people in 2012 to 630 million by 2022¹⁹.

However, China still faces enormous challenges – both internal and external – going forward. Internally, achieving and maintaining full employment is a major continuing test for the Chinese government, given the expected rise in urbanization and decline of exports of light-manufactured goods. Moreover, the rapid economic development of the past 35 years has come at a cost. There is growing income disparity (both inter-regional and intra-regional), uneven access to basic education and healthcare and inadequate infrastructure. There is serious degradation of the environment, including air and water. There is deterioration of industrial and food safety. Corruption has become widespread. These are the problems that need to be forcefully tackled. Meanwhile, China also needs to deepen reform and continue to open its economy further. The new Chinese leadership is expected to make these their top priorities.

Externally, for China, in addition to the uncertain global economic environment, there are also the ongoing territorial disputes between it and its neighbors in both the East China Sea and the South China Sea. However, what the Chinese and the other world economies need is a peaceful environment within which to develop. It is therefore imperative for all governments concerned not to let these ter-

ritorial disputes get out of hand. The best hope is for all parties to shelve the disagreements on territorial disputes, leaving them to future generations, and to focus on building common prosperity. Both the U.S. and China have important roles to play in maintaining peace and prosperity in the region.

The economic recovery in the U.S. has been slow over the past three and a half years, but there are some encouraging signs. Overall, the U.S. economy did much better than almost all other major developed economies. Moreover, there is still significant excess productive capacity in the economy. The U.S. is still the principal source of innovation in the world (consider, Google, the iPhone and iPad, Facebook and Twitter). The discovery of abundant reserves of shale oil and gas in the U.S. and the maturation of the hydraulic fracturing (fracking) technology have made energy in the U.S. more available and much cheaper, potentially making its industries more competitive and ensuring its energy security, especially in combination with Canada and Mexico. The prospect is that within the next ten years, the U.S. is likely to become a net exporter of energy to the world. This is going to be a 'game-changer' as the U.S. trade deficit may be significantly reduced and the price of energy within the U.S. will remain relatively low, providing the foundations for a manufacturing revival. On the basis of these favorable factors, the U.S. economy is projected to grow at an average annual rate of 3% over the next 10 years²⁰.

In the meantime, reducing the stubbornly high unemployment rate is a challenge of the highest priority. The U.S. will also need to lower the overall recurrent budget deficit to a manageable level. It will also need to build or rebuild infrastructure. There must also be continuing investment in education

17 The Chinese GDP per capita in 2010 was US\$5,234 (at 2012 prices). Doubling it in ten years would bring it to US\$10,468 (at 2012 prices) in 2020. The implied average annual real rates of growth of GDP per capita and GDP are 7.2% and 7.7% per annum respectively. Given the real rates of growth of GDP of 9.2% in 2011 and 7.8% in 2012, an average annual rate of growth of 7.5% for the rest of the decade should be sufficient to achieve this goal.

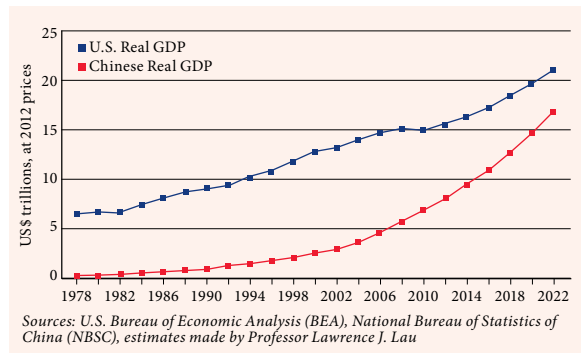
18 The Chinese economy of today is not aggregate supply-constrained as it used to be, but aggregate demand-constrained. There is excess capacity in almost all of the major manufacturing sectors. This is also the reason why the core rate of inflation, that is, the rate of inflation net of the changes in the prices of agricultural and energy goods, is likely to remain subdued.

19 See Part II, Chapter 7.

20 The period in between, 1983-2007, is referred to as the period of the 'Great Moderation'. U.S. GDP was US\$7.07tr in 1983 and US\$15.2tr in 2007 (at 2012 prices), with an average annual real rate of growth of 3.25%. However, some U.S. economists regard this rate of growth as over-optimistic as a long-term average rate because of ongoing demographic changes which slow down the growth of the U.S. labor force and the exceptionally sluggish pace of the current economic recovery.

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Figure 8: Actual and Projected Real GDP of China and the U.S., 1978-2022



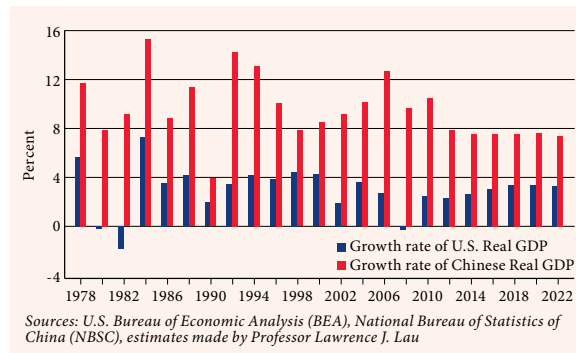
and in science and technology, to keep up the U.S. lead in innovation. Internationally, the U.S. should take the lead in helping to maintain a peaceful environment around the world.

In the longer term, the U.S. has an enormous advantage over other nations with its wealth of natural resources and its ability to attract the best minds in the world to live and work in the country. The U.S. has the best universities in the world, and has devoted a huge amount of resources to research and development. These are competitive advantages which will be unmatched by other countries for decades to come.

In Figures 8 and 9, projections of the levels and rates of growth of the real GDPs of the U.S. and China for the next ten years are presented. In 2022, the U.S. is expected to remain the largest economy in the world, even though the Chinese rates of growth are likely to be higher. U.S. real GDP per capita is projected to reach US\$62,600, still more than five times the projected Chinese real GDP per capita of approximately US\$12,000.

By 2022, the U.S. and China are likely to be each other's largest trading partner in the world. China will also have become the largest importing nation in the world. U.S. exports to China are estimated to rise to US\$530bn, more than three times current

Figure 9: Actual and Projected Rates of Growth of the Real GDP of China and the U.S., 1978-2022



levels²¹. China will overtake Canada and Mexico as the largest importer of American goods. For every US\$1bn of U.S. exports to China, an estimated GDP of US\$0.86bn and employment of 4,800 person-years are created in the U.S., so that in 2022, U.S. exports to China are projected to generate US\$456bn worth of GDP and more than 2.54 million jobs in the U.S., an increase of 1.81 million over the comparable 2010 figure. If the restrictions on U.S. exports of high-technology products and on oil and gas to China are relaxed, U.S. exports to China are likely to be even higher, as Chinese demands for high-technology products and for energy are likely to remain strong.

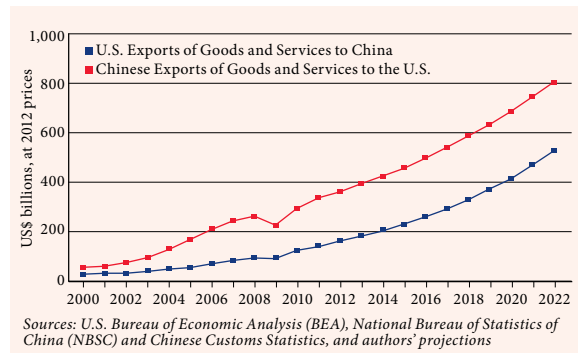
By 2022, Chinese exports to the U.S. are estimated to reach US\$805bn. For every US\$1bn of Chinese exports of goods and services to the U.S., an estimated value-added (GDP) of US\$0.641bn and employment of 15,000 person-years are created in China, so that in 2022, an estimated GDP of US\$516bn and total employment of 12.08 million person-years are generated by Chinese exports to the U.S.²². These are very significant numbers. China's annual trade surplus of goods and services

21 US\$530bn is the average of four estimates of U.S. exports of goods and services to China in 2022, made by Dr Gary Hufbauer of the Peterson Institute of International Economics, the China Centre for International Economic Exchanges, Chinese Academy of Sciences and by the study team of the China-U.S. Exchange Foundation respectively.

22 It is possible that the GDP generated is higher if the domestic value-added content of Chinese exports has risen and the employment generated is lower if the domestic labor content of Chinese exports has fallen.



Figure 10: Actual and Projected Chinese Exports to the U.S. and U.S. Exports to China, Goods and Services, 2000-2022

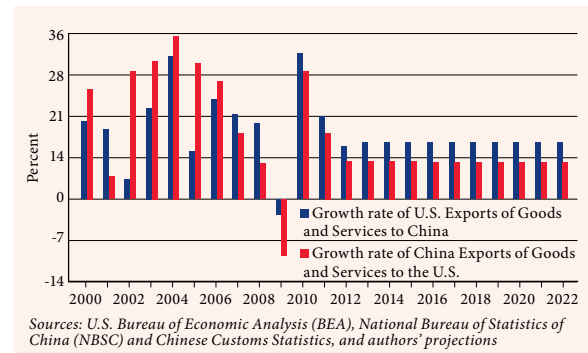


with the U.S. is likely to remain high at US\$275bn (see Figure 10) but as a percentage of its GDP would only be 1.5%.

There is ample opportunity for the exports of U.S. services to China. Today, China's service sector only accounts for less than 45% of the Chinese economy, while the U.S. service sector accounts for more than 80% of the U.S. economy²³. The U.S. service sector is mature, competitive, customer friendly and efficient. The Chinese service sector is at the early stages of development. There is much that the U.S. service sector can offer to China. In the ten years between 2001 and 2011, although it went unnoticed, U.S. exports of services to China grew almost 500%. These included advisory services such as in law, consulting, finance and accounting. This trend is likely to continue in the years ahead. Particularly noteworthy developments are that more Hollywood movies are being screened in China, the National Basketball Association (NBA) has a nationwide audience in China, and Disney is opening a new theme park in Shanghai. These are only a few examples, but the huge potential is evident.

But this potential growth in trade and net benefits to the U.S. and China cannot be taken for granted. Bilateral tensions, multilateral trade or

Figure 11: Actual and Projected Rates of Growth of Chinese Exports to the U.S. and U.S. Exports to China, Goods and Services, 2000-2022



currency disputes, as well as macroeconomic problems, could derail it. The opportunity cost to Chinese and Americans of allowing it to be derailed is enormous, as demonstrated above.

The Rise of the Middle Class in China

As a result of the success of China's economic reform and opening up policies since 1978, much wealth has been created for the Chinese people and more people have begun to share the benefits of the economic prosperity. At the same time, as the government's social security programs began to take root, a middle class began to take shape. Household consumption began to increase, first with the purchase of television sets, furniture and other home appliances, and then progressing on to the purchase of homes, cars, computers, mobile phones, etc. Additionally, like other people, the Chinese people spent their increased wealth on good food, entertainment and traveling within and outside China as tourists. Moreover, many students were sent overseas to pursue the best education possible. Indeed, China's domestic real retail sales, driven by its growing middle class, have been growing at the rate of 13.8% per annum for the past ten years, or approximately 50% faster than the rate of growth of Chinese real GDP. Of particular note is the exceedingly low consumption share of Chinese GDP, by international and historical standards.

²³ The service sector includes government services.

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The size of the Chinese middle class has been projected to grow enormously over the next decade. The rapidly rising demand by the Chinese middle class will provide the stimulus for growth not only for China, but also for the U.S. and the rest of the world. That demand will come not only from the increased size of the middle class, but from the rise – from very low levels – of Chinese consumption as a share of GDP.

Different and complementary

Even though the U.S. and the Chinese economies are the two largest in the world in terms of GDP and total international trade, they are as different as they come. The U.S. is technologically the most advanced nation and China is the largest developing nation. The U.S. GDP per capita is more than eight times the Chinese GDP per capita. The two countries are at distinctly different stages of economic development.

However, complementarity between the U.S. and Chinese economies arises precisely because they are so vastly different. The benefits of economic exchange and cooperation between the two economies are the greatest when they are the most different, that is, when their comparative advantages have the least overlap. For example, two economies with similar natural resource endowments do not benefit very much from trading with or investing in each other if they both have similarly low wage rates and high costs of capital, because their resulting cost structures are likely to be essentially the same²⁴.

In terms of the availability of the primary inputs of production – tangible (or physical) capital, labor and land – the conditions of the U.S. and China are vastly different. On tangible capital stock (structure and equipment), the U.S. has almost a third more

than China (US\$23tr versus US\$18tr in 2012) in absolute value, and 6.2 times as much relative to the labor force²⁵. In plain language, a U.S. worker has more than six times more structure and equipment to work with than a Chinese worker. This is one, but not the only reason, why a U.S. worker is much more productive.

On labor, China is still very much a labor-surplus economy. Its working-age population is almost five times that of the U.S. in 2012. The wage differential between the U.S. and China reflects the relative abundance of labor in China – as well as the quality of the human capital embedded in the labor force. The U.S. federal minimum wage is US\$7.25 an hour, whereas in China, where the minimum wage differs across regions, the highest minimum wage is US\$2.43 an hour in Beijing and the weighted average of the minimum wages of all provinces, municipalities and regions is US\$1.85. This indicates that the cost of unskilled, entry-level labor in China, despite its recent rapid increase, is still less than a third that in the U.S.

On arable land, the U.S. has 163 million hectares compared to China's 122 million hectares, a third more, but less than a quarter of China's population²⁶, resulting in an arable land to population ratio that is almost six times higher than that of China. In addition, U.S. agriculture is tremendously productive.

In terms of human capital, the gross tertiary enrollment rate in the U.S. in 2012 was 95%, compared to 27% in China²⁷. Similarly, the percentage of the working-age population with tertiary education is almost 40% in the U.S., compared to less than 10% in China. In terms of research and development (R&D) capital, the U.S. stock was more than ten times that of the Chinese stock in 2012. In the same

24 However, it is still possible for developed economies to benefit from trading with one another if they specialize in different niches, that is, if they have different comparative advantages in different industries that have been created over time. This is the insight of Paul Krugman, Nobel Laureate in Economic Sciences (2008).

25 See Part II, Chapter 2. These figures are sensitive to the exchange rate, but the overall picture of the U.S. having a much higher tangible capital-labor ratio than China for many years to come is clearly evident.

26 The populations of the U.S. and China were 310 million and 1,339 million respectively in 2012.

27 These enrollment rates include all post-secondary education institutions such as junior colleges and technical colleges. The figures quoted here are derived from UNESCO data.

**Figure 12: A Comparison of Factor Proportions between the U.S. and China, 2010-12**

	China			U.S.		
	2010	2011	2012	2010	2011	2012
Tangible capital per working-age population (2011 US\$ thousands)	14.27	16.09	18.02	113.41	112.32	111.43
Arable land per working-age population (Hectares)	0.12	0.12	0.12	0.79	0.78	0.78
R&D capital stock per working-age population (2010 US\$)	382	449		15,731	16,058	
U.S. Patents granted annually per thousand working-age population	0.003	0.003	0.004	0.522	0.523	0.580

Sources: China census data, Chinese Statistical Year Book 2012, International Financial Statistics (IFS), National Bureau of Statistics of China (NBSC), OECD Statistics, U.S. Patent and Trademark Office, World Development Indicator

year, the number of patents granted in the U.S. to U.S. nationals was 121,247 compared to 3,786 for Chinese nationals²⁸.

The factor proportions of the U.S. and China are compared in Figure 12. It is clear that in terms of tangible capital per person, arable land per person and R&D capital per person, the U.S. has been, and still is, way ahead of China. What this implies is that the U.S. is likely to have a large comparative advantage over China in industries that are relatively tangible capital-intensive, land-intensive (such as agriculture) and human capital and R&D-capital-intensive (such as high-technology industries), whereas China has a significant comparative advantage over the U.S. in relatively labor-intensive industries.

While tangible capital, human capital and R&D capital can all be increased over time through appropriate investment, they take a long time to accumulate. Chinese R&D expenditure as a share of its GDP only managed to reach 1.97% in 2012 whereas the U.S. has been investing between 2.5% and 3% of its GDP for the past several decades. Thus, U.S. comparative advantages in intangible capital is likely to persist for at least a couple of decades or even longer. The U.S. will continue to be the major source of innovation in the world. It will also take a while for China to catch up to the tangible capital-labor ratio of the U.S. because of the large gap that currently exists between them. And since arable land

cannot be easily increased, the U.S. will always have a comparative advantage in land-intensive economic activities relative to China.

Another aspect of the complementarity is the huge difference in the savings rates. The U.S. gross savings rate is about 12% (the net of depreciation private savings rate is 8%, and the net national savings rate is slightly negative due to large government borrowing), whereas the Chinese savings rate approaches 50%. China both saves too much and invests too much and the U.S. saves too little. If China fails to invest substantially all it saves domestically, then it will result in a large trade surplus vis-a-vis the world, which is neither sustainable nor desirable for China. If China invests in China all it saves, it will not have a trade surplus, but over-investment is likely to result, creating excess production capacity and lowering the rate of return on capital. In order to bring the savings rate down, China must strive to increase its domestic personal consumption, which it has been doing, but it will take a long time to be able to bring the domestic savings rate down to a more reasonable level, such as 30%. Thus, in the interim, increases in domestic demand must come not only from domestic personal consumption, but also from public or government consumption such as spending on education and healthcare services, and the provision of public goods such as clean air and water, as well as domestic investment.

Shared interests and responsibilities

In addition to the underlying economic comple-

²⁸ See Part II, Chapter 11.

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mentarity, there are also areas of commonality of interest which provide opportunities for economic cooperation. For example, under China's 12th Five-Year Plan (2011-2015), China aims to transform its mode of development from exports driven to domestic demand driven and from input based to innovation based, as well as to balance its international trade. This implies that the Chinese government will be promoting domestic aggregate demand including both investment and consumption. Moreover, it will also be facilitating imports. The U.S., under President Barack Obama, seeks to double its exports by 2014. The U.S. and China can work together to promote U.S. exports to China as part of these efforts.

To increase domestic personal consumption, China will need to increase the disposable income received by the households as well as provide a credible social safety net. To encourage innovation in China, it is inevitable that China will need to tighten its enforcement of IPR, not only because of pressure from the U.S. and other foreign countries, but also because it is in its own interests to do so. Chinese inventors need such protection as much as foreign inventors.

Another shared economic interest is the reduction of the downside risks of a systemic failure of the world economy, however it may occur, and to limit the damage if it actually materializes. This would also require the two countries to work together. A good example is the agreement by the U.S. and China to undertake massive economic stimulus in their respective countries soon after the 2008 global financial crisis began.

Yet another shared economic interest is maintaining and sustaining full domestic employment. Over the past several decades, there has been a steady migration of jobs from high labor-cost areas to low-labor cost areas, a trend which has accelerated in recent years due to globalization and the information and communication technology revolution. This is a challenge which the U.S. has been

facing since the 1960s, and which China will begin to face within this decade, as its labor costs are rising rapidly relative to other emerging economies. Longer term, there is also the impact of technology. Networks of computers are replacing routine white-collar jobs while automation and robots have begun to displace manufacturing jobs. Growth of employment occurs only in high-skill professions, while many jobs are lost at the low-skill end. There is no good or quick solution to this problem. Education, training and re-training will help. More jobs that cannot be easily moved away – such as those serving the tourism sector – need to be created. The two countries, through deeper economic engagement with each other, may indeed discover areas and ways in which jobs can be created in both. For example, expansion of the service sector can create millions of new jobs in China. The U.S. firms, with their vast experience in the service sector, can help China as it develops its own service sector, while benefiting from their own participation in China's growing service sector market.

Finally, the U.S. and China, as the two largest economies in the world, have a responsibility to jointly lead in contributing to the global public good, such as the amelioration of the risks of climate change. The U.S. and China are the two largest energy producers and consumers in the world. They share the same objective for energy security. They are also the two largest emitters of greenhouse gases, and therefore should share common responsibility in reducing the risks of climate change and ensuring sustainable development for the entire world. Thus, cooperation in improving energy efficiency – in renewable energy, nuclear energy, clean coal and shale gas and oil technologies – can and should be aggressively pursued. Another global public good is the multilateral system of trade and investment and the associated institutions. Again, jointly, the two countries could provide the stability and sustainability that the world economy needs to continue to grow.



D. Towards Deeper Engagement

In section C, the future economic outlook and the vast economic complementarities and shared interests between the U.S. and China are identified and discussed. In this section, we shall discuss how the two countries can take advantage of these opportunities and complementarities to create jobs and prosperity for the people of both countries in seven promising areas. These will be followed by specific recommendations in each of the areas directed at the two governments, the thinktanks, the business sectors and other institutions of the two countries.

Trade in goods and services

As stated in the previous section C of this study, the U.S. and China will be each other's largest trading partners in the world by 2022. Moreover, the two economies are so different that a free trade agreement between them will maximize the economic benefits of a free trade area for both. What better way is there to unlock the full potential by having the two nations begin, as soon as practicable, negotiations for a free trade agreement? However, before this can happen, it may be necessary to launch a serious study on the feasibility and the potential benefits and costs of a China-U.S. free trade area.

The potential of China as a market for U.S. exports, in addition to being a manufacturing base, is gradually being recognized by U.S. firms. U.S. exports to China have more than quadrupled over the past ten years. However, the potential of U.S. exports to China, particularly by the small and medium size enterprises (SMEs), has yet to be fully realized. The difficulties of selling to the Chinese market, given the inefficiencies and peculiarities of China's domestic logistics and distribution systems, also compound the problems faced by U.S. SMEs.

An initiative which began a couple of years ago as a result of efforts by the U.S. Department of Commerce and Hong Kong's Trade Development Council to assist U.S. SMEs to sell their goods

and services into East Asia, and in particular into China, has been bearing fruit. These organizations make annual visits to a number of states to promote this effort. The more U.S. SMEs become aware of these activities, the more they are likely to be able to export to China.

Another possible way to help U.S. SMEs sell their goods and services to Chinese importers is to organize annual export trade fairs in major U.S. cities such as San Francisco. Such trade fairs can play the same role in promoting U.S. exports as the annual Canton Trade Fairs did for Chinese exports in the past. To make these trade fairs effective, active participation by U.S. exporting firms and potential exporting firms, Chinese importers and other trading and services companies is needed. It will take a while to build up a critical mass. However, it has the advantage that many U.S. SMEs who have never considered exporting before, can participate in such a trade fair at a relatively low cost and without having to go abroad. Meanwhile, encouragement should also be given to U.S. SMEs to participate in trade fairs organized in places such as Hong Kong, where many Chinese importers and trading companies are already participating actively. Fostering more state-to-province and city-to-city partnerships between the U.S. and China is also another effective channel through which SMEs on both sides of the Pacific Ocean can get in touch with one another. The Export-Import Banks of both countries can also be encouraged to make credit more easily available to U.S. SMEs exporting to China and vice versa. Promoting and facilitating bilateral trade through online services can enable both U.S. and Chinese SMEs market their products with greater efficiency and lower costs. This should be actively pursued by both governments.

Investment

Given the expected continuing rapid growth of the Chinese domestic market for both consumer and producer goods, China should continue to be a fa-

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vored destination of U.S. direct investment. Chinese direct investment to the U.S., currently at the same order of magnitude as U.S. direct investment, is also poised to grow, encouraged by the Chinese government. We need to unlock the potential of bilateral investment so that more jobs and economic opportunities can be created in both countries.

China's consumer market is enormous and it is becoming larger every day. Those U.S. companies that entered China early, such as General Motors, Ford, Procter & Gamble, Wal-Mart, Federal Express, KFC, McDonald's and Starbucks, have already reaped huge benefits, winning substantial market shares and becoming household names in China. As the Chinese middle class continues to grow, the benefits to these companies will be further increased. U.S. multinational corporations can serve these Chinese middle-class customers by operating directly in the retail market in China.

The U.S. excels in its service sector. The Chinese service sector is poised to expand as China restructures its economy from being export driven to domestic-demand, including domestic consumption, driven. There is tremendous opportunity for the U.S. to participate in the growth of China's service sector either through exports or direct investment. This has already been happening – the franchise model of service business, pioneered by U.S. firms, has taken root readily in China. In addition, many indigenous franchise chains, following the imported model, have sprung up. Other services, such as mass entertainment (e.g. the NBA), are also being introduced into China. Wal-Mart stores are everywhere. The part of the Chinese service sector which caters to retail consumers is actually quite open to FDI through wholly owned subsidiaries.

In some other sectors, such as banking and insurance, China is more cautious about opening for macro-prudential as well as protectionist reasons. While it is understandable that China needs to take a gradualist approach towards opening its financial sector so as to avoid the occurrence of a financial cri-

sis, foreign financial institutions can also contribute to further reform and liberalization of the Chinese financial sector. If a foreign financial institution is already permitted, under existing rules, to establish a wholly owned commercial bank subsidiary in China, it does not make sense to limit the subsidiary from merging, acquiring or owning more than 20% of another financial institution in the same line of business a priority. It is, however, reasonable for the Chinese regulator to set aggregate limits on the total assets of the subsidiary and impose applicable capital requirements after the acquisition. As long as a wholly owned subsidiary by a foreign financial institution is already allowed, it should not matter whether it grows organically or through merger and acquisition in the same line of business.

The value of financial assets of U.S. households, according to an estimate of the U.S. Federal Reserve Board, was US\$54.390tr as of year-end 2012. However, at the present time, there are only limited portfolio investment opportunities in China for U.S. individual investors. U.S. individual investors can only invest through H shares in Hong Kong for Chinese enterprises, or in those Chinese enterprises that are either listed or dually listed on the New York Stock Exchange, NASDAQ and other exchanges. However, they can invest in mutual funds managed by foreign asset managers who buy and sell shares on the Shanghai and Shenzhen Stock Exchanges as 'Qualified Foreign Institutional Investors' (QFII). However, there are relatively few individual retail investors now in the U.S., who are active investors in Chinese enterprises, so it is not clear whether there will be a rush into the Chinese securities market if and when Chinese capital controls are lifted.

The U.S. consumer market continues to be of interest to Chinese enterprises, for example, to Haier and Lenovo, which manufacture and market household electrical appliances and computers, respectively, in the U.S. Companies in the auto parts and high-end steel products are also coming to the



U.S. Indeed, the Japanese experience of establishing manufacturing plants in the U.S. for the consumer market may be a good model for Chinese enterprises to adopt. The energy and agriculture sectors in the U.S. may also attract Chinese FDI. Real estate is another area where there may be keen Chinese interest. Investment in infrastructure is yet another possibility for Chinese investors. All of these activities can generate GDP and create jobs in the U.S.

China has been and still is a major portfolio investor in the U.S. through the investment of its foreign exchange reserves by the People's Bank of China (the central bank). It holds approximately US\$1.2tr worth of U.S. Treasury securities. In addition, it probably holds up to another US\$1tr worth of US\$-denominated portfolio investments. However, the need for the Chinese central bank to hold such a high level of foreign exchange reserves for transaction purposes is diminishing as the renminbi is increasingly used in the denomination and settlement of Chinese international transactions, especially those with East Asia. It is, however, in the interests of both the U.S. and China for the Chinese central bank to continue to hold its Treasury securities. In this highly uncertain environment, it is beneficial for the U.S. if the Chinese central bank is willing to hold bonds of long maturities. However, holding such bonds at this time exposes the Chinese central bank to large capital risks related to possible changes in interest rates, inflation rates and exchange rates during this long time horizon. A possible win-win strategy is for the U.S. Treasury to sell or swap long-maturity (say, 30 years) Treasury Inflation-Protected Securities (TIPS) to the Chinese central bank for the short-maturity non-inflation-indexed Treasury securities that it currently holds. TIPS can provide some degree of protection against not only inflation, but also interest rate risks as well as exchange rate risks for the holder.

If and when China's capital account is liberalized, Chinese private investors are likely to become significant investors in the U.S. securities market,

private equity and hedge funds. Currently, the total financial assets of Chinese households may be estimated at US\$9.5tr. By 2022, as real GDP per capita is likely to have doubled, the value of total household financial assets is also likely to at least double as well, to US\$19tr. Chinese private investors, if given the opportunity, would most likely wish to diversify their investment portfolio into foreign financial assets. If we use the percentage of Japanese household financial assets held overseas of 3% as a guide, this would imply a possible outbound private portfolio investment of US\$570bn for a one-time portfolio adjustment. In addition, there will be annual outbound private portfolio investment, estimated to be approximately US\$28.5bn per year, as GDP per capita and household wealth continue to grow.

The U.S. need for new infrastructure and the renewal of aging infrastructure is substantial. Such activities can create millions of jobs. Chinese investors, with their surplus savings, can provide some funding for this effort, in the form of either debt or equity. This is good for the U.S., and will also be good for China because of the attractive returns. A U.S. institution should be engaged to study how Chinese investors can be drawn into investing in the U.S. infrastructure projects.

Cooperation in agriculture

As the Chinese economy continues to grow and the standard of living of the Chinese people further improves, Chinese demand for food and agricultural products will grow even faster. Moreover, the rise of the Chinese middle class also implies a significant increase in the demand for meat and poultry. In addition, the ongoing urbanization of China will create even greater demand for food and agricultural products, as the demand for such products is approximately 50% higher for an urban resident than a rural resident. The improvement in Chinese agricultural productivity has thus far helped to satisfy its demand for more food of higher quality. However, the shortage of land and water resources

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is a serious long-term bottleneck for further expansion within China. The environmental and hygiene problems of raising too much poultry and livestock, and of using too much chemical fertilizer and pesticides, also pose long-term health hazards. How best to mobilize both domestic and global resources and technology to satisfy its rapidly increasing demand for food in a sustainable manner is a major challenge for China.

China is today the largest importing nation of agricultural products in the world. The U.S. is China's largest supplier of agricultural products and China is the largest market for U.S. agricultural products, not only because of the relative abundance of arable land and the availability of water resources in the U.S., but also because of the efficiency and advanced technological level of U.S. agriculture that has resulted from its longstanding investments in agricultural R&D. China is not likely to be able to meet its additional demands in the years ahead through increases in domestic supply alone. The U.S., however, has the capacity to expand its agricultural production to satisfy the incremental demands overseas, particularly in products such as grains and meat. U.S. exports of agricultural products to China can thus potentially increase even more if the U.S. producers can be assured of a dependable, steady long-term demand and the Chinese importers can be assured of security and sustainability of supply. Through cooperation in agriculture with China, the U.S. can put its surplus land resources to work, thus boosting economic activities and creating additional durable employment.

China currently imports pork, beef and chicken from around the world, but such imports from the U.S. have thus far been limited for the following reasons: First, imports of pork are limited because of the use of hormones by U.S. producers in raising the pigs, which China, like the E.U., has banned. If an undertaking is given by U.S. producers that hormones will not be used, as has been done to the European Union, the Chinese market can be open

to U.S. pork. Given the importance of pork in the Chinese diet, the potential demand can be huge²⁹. Second, imports of beef are limited because of the risk of mad-cow disease. However, as no new cases have been reported for some years, this obstacle can be overcome. Finally, the imports of poultry from the U.S. have become a victim of trade disputes between the two countries. It is hoped that the dispute can be settled soon.

Thus, U.S. producers have an opportunity to supply pork, beef and chicken to China, in addition to corn and soya beans of which the U.S. is already the largest supplier to China. Corn and soya beans are used as feed grains in China. In the longer term, consideration should be given by the Chinese government and enterprises in the food industry to the direct importation of pork, beef and chicken from the U.S., rather than the feed grains. This can conserve scarce land resources, enhance the quality of the pork, beef and chicken, and improve hygiene conditions in China, and possibly reduce freight costs (the ratio of feeds to meat is approximately 8 to 1), as well as create additional economic activities and employment in the U.S.

Given the considerable concerns for food security and food safety in China, the potential for cooperation in agriculture between both countries is enormous and is clearly a win-win situation. The U.S. and China should therefore devote efforts to expand this cooperation. If unimpeded, ten years from now, the value of the total trade in agricultural products between the U.S. and China could be double what it is today.

As the float of uncommitted supplies of grains and meat on the world spot markets is relatively thin, one useful way to promote a significant increase in U.S. agricultural exports to China from its current levels is through the use of long-term (for example, 20 years) commodity supply contracts at pre-deter-

²⁹ Pork holds much weight in Chinese household expenditure and hence in the Chinese consumer price index. Much of the inflation in China has been caused by the rise in the price of pork.



mined prices agreed to by both the buyer and the seller (such as on a cost-plus basis). Such long-term supply contracts will provide the incentive for U.S. producers to invest in new long-term supply capacity while at the same time mitigate Chinese importers' concern about the uncertainty of supply. The price formulae agreed to by both sides will also cushion both the buyers and sellers from volatile commodity prices. The supply contracts of corn and soya beans and other grain products can be pursued by U.S. producers and Chinese importers along the lines described above. Long-term supply contracts for meat and poultry can also be similarly pursued.

However, there is concern that either government may, for whatever reasons, prevent the agricultural products from being exported from the U.S. or imported into China. To provide certainty to both the Chinese importer and the U.S. exporter that the long-term contract will be honored, a warehouse in China, stocked with one-year's supply of the agricultural product under contract, could be held by the Chinese importer as collateral. At the same time, the Chinese importer would put the necessary funds for one year's purchase in an escrow account in a bank in the U.S. to guarantee its purchase, if the supply is actually delivered. Such collateral arrangements, underpinned by prior agreements on the parts of both the importer and the exporter, and supported by both governments, should be sufficient to dissuade both sides from not fulfilling their respective contractual obligations. This is because once the agreement is broken, by either side, it will terminate automatically. The U.S. producer will be stuck with the new productive capacity, with no longer a buyer for the product, if for any reason it fails to ship the contracted supply. The Chinese importer will have to pay anyway, even if it refuses delivery. Such long-term supply contracts can alleviate Chinese concerns about food security and can lead to genuine interdependence.

Cooperation in tourism

As discussed under "Global Factors" in section B above, in today's world economy, any job that can be moved away to a lower-cost location will be moved away. Tourism is, however, unique in the sense that it can generate many lower-skilled jobs that cannot be moved away, through the demands for lodging, food, retail, transportation, communication and entertainment. A person wishing to visit New York will have to go to New York, stay in a hotel, eat in restaurants and shop in department stores, thus creating demand for local services.

Hong Kong has been a major beneficiary of mainland Chinese tourists. A major effort to lure Mainland tourists was initiated in Hong Kong in 2003, in what is called the "Individual Visit Scheme". At that time, the total number of overnight mainland Chinese tourists visiting Hong Kong was 8.5 million³⁰. By 2012, this number has risen to 34.9 million, approximately 72% of all inbound overnight tourists to Hong Kong. They stayed an average of three nights and spent an average of US\$1,054 per day. These tourists generated a large number of local jobs in Hong Kong – it has helped to bring the unemployment rate in Hong Kong, with a population of approximately seven million, down to 3.2%, even though almost all of the manufacturing jobs and back-office jobs have migrated to the Mainland and elsewhere from Hong Kong. Experience in other places such as Japan and Europe suggests that a large influx of well-heeled tourists can make an immediate positive impact to the local economies.

Ten years ago, there were 16.6 million Chinese tourists visiting abroad (including Hong Kong and Macau). By 2012, this number increased to 83.2 million. By 2022, it is projected that this number is likely to reach 182.7 million a year³¹. Interest among Chinese tourists to visit the U.S. is consider-

³⁰ This number does not include day visitors from mainland China.

³¹ See Part II, Chapter 11. A March 2011 report published by the Boston Consulting Group estimated that the number of Chinese outbound trips would grow by over 10% per annum from 2010 to 2020, and that about 20 million trips would be made to long-haul destinations in 2020.

able for a variety of reasons. The U.S. is the most developed and technologically most advanced economy in the world; it has a rich and varied culture; it has a storied history; it boasts Hollywood, Broadway and Disney; it is home to some of the greatest universities in the world; and it has beautiful scenery. Moreover, interest in American consumer goods, from fashion to electronic gadgets, is also substantial. With the rise of the middle class in China, outbound tourism will increase further by leaps and bounds. These tourists will bring with them enormous spending power to help support the local economies.

In 2012, about 1.5 million Chinese tourists visited the U.S. By 2022, this number is projected to increase to 5.73 million, constituting 3.1% of the total number of outbound Chinese tourists. If visa-free access were granted to Chinese tourists by the U.S., as is already the case for Japanese and South Korean tourists, the number of Chinese tourists visiting the U.S. annually by 2022 is projected to be somewhere between 8.1 million and 10.7 million.

It has been estimated that a typical Chinese tourist will spend approximately US\$750 a day. Assuming that the average visit to the U.S. lasts 14 days, this will imply, on average, a total spending of US\$9,000 per tourist (not counting the days of arrival and departure)³². A million Chinese tourists a year is estimated to generate a total expenditure of US\$9bn, a value-added (GDP) of US\$3.5bn and 61,352 jobs. If by 2022, the number of Chinese tourists visiting the U.S. actually hits 10 million, the creation of approximately US\$35bn of GDP and 610,000 jobs in the U.S. is projected.

Today, 130,000 Chinese students are studying in the U.S., and 30,000 American students are now studying in China. The two countries have committed to increase the number of U.S. students visiting China to 100,000 over the next five years. This exchange of students will indeed become an important

bridge for friendship and understanding between the two countries, as well as a significant and direct contributor to economic growth and employment in both countries. Foreign students in the U.S. (they can be viewed as 'long-term tourists') can also increase domestic aggregate demand in the same way as tourists. Chinese students in the U.S. spend less per day, but much more per person per year, for instance, around US\$50,000 on average. Assuming an inflow of 100,000 Chinese foreign students into the U.S. per year, and assuming an average stay per person of four years, the total expenditure by these students will amount to US\$20bn over those four years, which is capable of creating additional GDP of US\$7.8bn and more than 136,000 local jobs that cannot be moved away. In addition, thousands of business professionals also travel between the two countries every year. The impacts on GDP and job creation are quite significant.

There were 2.12 million U.S. tourists that visited China in 2011, approximately 3.6% of all U.S. outbound tourists. This number can also be much higher given proper promotion and easier visa access by China. Every effort should be made to increase bilateral tourism between the two countries.

Visits between the two countries not only support the economic relationship between the two countries. An increasing flow of people between the U.S. and China will help to enhance understanding and build friendship among the two peoples which will further facilitate even closer economic cooperation and collaboration. Moreover, with a deeper economic relationship between the two countries, more people will move across the Pacific Ocean, and the bridge of friendship between the two countries will become so much stronger.

Cooperation in science and technology

At the present time, by any measure, the U.S. has an overwhelming superiority over China in science and technology. This is very much the result of long years of investment in human capital and in R&D

³² The U.S. Department of Commerce has estimated that a Chinese tourist to the U.S. will spend, on average, US\$7,100.



in the U.S. The U.S. has been the source of major innovations such as the iPhone and Facebook. The U.S. leads over China, and for that matter all other nations, by a large margin in science and technology. The significant gap between the U.S. and China in science and technology is across the board and is likely to remain so for the foreseeable future, certainly for the next decade.

China has been increasing its investment in human and R&D capital. It is also trying to nurture a culture of collaborative research and innovation. China recognizes that science and technology are the keys to China's modernization and sustainable development.

The U.S. and China have been collaborating successfully in science and technology without interruption since 1978, under an agreement entitled "US-China Intergovernmental Science and Technology Cooperation Agreement", through its academic and research institutions. The areas of cooperation are: energy, environmental protection, basic science, transportation, health and pharmaceuticals, nuclear safety, civilian use of nuclear technology, research involving agriculture, etc. The major impediment in this collaboration is in the area of IPR protection³³. In this respect, the attempts of the two governments to provide a platform to educate the Chinese on how to properly value intellectual property have been a very important step forward. China must double its efforts to protect intellectual property rights, whether owned by Chinese or foreigners, within China. Indeed, China needs to make the shift from being a consumer of intellectual property to a producer of intellectual property.

Looking into the future, government-to-government collaboration in science and technology can, on the basis of the existing foundations, be expanded and strengthened. One possible opportunity that is worthy of serious consideration by both governments is collaboration in the 'manned space

program'. The U.S. is the undisputed leader in this area. China has been making good progress in its own manned space program. We believe that a collaborative manned space program can be a win-win for both countries. Other collaborative research opportunities include genomics – research on the possible application of genetic therapy to treat currently incurable diseases – and on the application of traditional Chinese medicine to the treatment of chronic illnesses.

Cooperation in energy, including research

The U.S. and China are the two largest energy-producing and energy-consuming nations in the world. Together, the two countries produce around 30% of the world's energy and consume 40%. Thus, both countries share the same objective of energy security. On the basis of its vast shale oil and gas reserves and its hydraulic fracturing technology, the U.S. is on its way to becoming a potential net energy exporter. This should free the U.S. from dependence on the oil supply from the volatile Middle East. U.S. energy firms, which excel in energy exploration and extraction technologies, can cooperate with Chinese energy firms to develop its unexploited reserves of shale oil and gas in a clean and efficient manner, benefiting both economies³⁴. In so doing, the U.S. can help China achieve energy security and avoid dependence on the Middle East. It is also possible for the U.S. to become an exporter of oil and gas to China.

It is interesting to note that government-to-government collaboration in science and technology in the field of energy has been greatly expanded as a result of the Strategic Economic Dialogue in 2006. At the time, the two governments recognized how important this effort is. The research conducted through the China-U.S. Clean Energy Research Center, specially established by the two govern-

³³ See the discussion in section E below.

³⁴ According to an estimate made by the U.S. Energy Information Administration in 2011, China has 'technically recoverable' shale gas reserves of 1.3 quadrillion cubic feet, 50% more than the U.S.

ments for this purpose, placed special emphasis on clean coal technology, electric cars and energy-efficient buildings, etc. In these efforts, scientists, academics and researchers from both countries have been participating. The business sector has also been invited to participate in this effort.

At the same time, the two governments have also encouraged the business sectors of the two countries to collaborate directly in the energy sector. Today, there are extensive business-to-business collaborations in areas such as clean coal technology, liquefaction of coal, smart grid, biofuel, third and fourth-generation nuclear energy, high voltage transmission, carbon dioxide sequestration, integrated gasification combined cycle (coal into gas), etc. The following are some successful examples, among others:

- a) Collaboration between China National Nuclear Corporation and Westinghouse of the U.S., on the construction of nuclear power plants in China and the U.S. Furthermore, there may be joint bids for nuclear power plants around the world.
- b) Collaboration between China Shenhua and General Electric on integrated gasification combined cycle research and development.
- c) Collaboration between China's ENN and the U.S.' Duke Energy on clean energy.

The two countries are also the largest greenhouse gas emitters in the world. People of both countries are concerned about sustainability of development, protection of the environment and reduction of the risks of climate change. Cooperation in science and technology in the area of energy can result in more efficient and more environmentally friendly use of energy and lead to a reduction of greenhouse gas emission. Working together, the U.S. and China can help ensure energy security and affordability and reduce the risks of climate change, not only for themselves, but also for the rest of the world.

Cooperation in enhancing sustainability

Both the U.S. and China have solemnly promised

to combat threats of climate change, protect the environment and help ensure sustainability of development for the world. As the two largest greenhouse gas emitters in the world, they are committed to reducing these emissions. The two governments have initiated collaborative research in building efficiency, renewable energy, nuclear energy, clean coal technology, electric vehicles, carbon dioxide capture, utilization and sequestration and other methods for reducing the carbon emission into the atmosphere, with the support of the private sector, which, if successful, can control the increase of greenhouse gas emissions and thereby slow down global warming and climate change. This should be a priority for the two countries.

E. Recommendations to the Two Governments

To turn complementarities and deeper engagement into economic opportunities and jobs requires the support of the entire spectrum of the societies of both countries, including, of course, the full participation of the business sector. But above all, the leadership role of the two governments can have a decisive impact. It is the governments that can create an open, transparent, fair and competitive market environment to attract investment and trade. For this reason, we put forward eight recommendations to the two governments:

- 1) Drawing on the expertise of government agencies in the U.S. and China, thinktanks from both countries should be engaged to study the feasibility and the benefits of a free trade agreement between the two countries. This study should be completed within one year of commencement. If the results of the study are positive, then a process toward negotiations should be initiated. As the two largest trading nations in the world, China and the U.S. should also take the lead to reinvigorate the Doha Round of world trade negotiations.



- 2) Discussions for a bilateral investment treaty have been ongoing for some time. In order to facilitate two-way investment flow, we urge both countries to commit to complete treaty negotiations as soon as possible, preferably within one year.
 - 3) The two governments need to encourage even more business to business collaboration in science and technology as it relates to energy, in such areas as building and industrial efficiency, renewable energy, shale oil and gas, carbon dioxide capture, utilization and sequestration, electric cars, etc. In addition, as it relates to climate change, the two countries should agree to a common negotiating position for the meeting in December 2013, and rally other nations to ensure a successful outcome of the 2015 United Nations Framework Convention on Climate Change treaty process.
 - 4) Both countries should streamline their visa application process, and extend visa durations to five years to begin with, then ten years, and eventually move to a visa-free regime. People need to feel that they are welcome. These changes will take time, but a deadline of two years would seem reasonable for five-year visa durations to start.
 - 5) During U.S. Secretary of State John Kerry's recent visit to Beijing, it was agreed by the two countries that a special working group will be established under the S&ED to begin discussion on the issue of cyber security. The group should work toward developing a roadmap on how the two countries can a) enhance and enforce cyber security, and b) collaborate to develop an international convention on cyber space. These need to be dealt with urgently, and therefore it is suggested that the S&ED complete the negotiations within 18 months with interim reports from time to time.
 - 6) There is global and domestic interest for China to vigorously pursue IPR protection. Indeed, it is in China's own interest to do so from the point of view of spurring innovation and economic growth, and also upgrading its industrial base. To achieve this objective, much work still needs to be done. We wish to make the following recommendations to the Chinese government:
 - a) The Leading Group for National IPR Protection, the single cross-ministerial organization within the State Council of China that is responsible for IPR protection, should further strengthen enforcement to ensure full compliance and deter intellectual property theft.
 - b) China should consider establishing a special national court exclusively for intellectual property disputes. This will greatly facilitate the resolution and settlement of intellectual property disputes in China.
 - c) We note S&ED's recent discussion has resulted in an agreement under which Chinese central and local government entities will eradicate the use of pirated software by the end of 2013. We urge the Chinese government to mandate that all Chinese SOEs and bank systems should do the same as soon as possible.
 - 7) Relaxation of U.S. export controls of high-tech products is a long-standing request by China. It is proposed that this issue be reviewed by the U.S. administration with added urgency, in the hope that a mutually beneficial outcome will emerge.
 - 8) Some U.S. government actions in both trade and investment, including actions by CFIUS, appear to Chinese enterprises to reflect political rather than policy considerations. The operation of CFIUS can be made more transparent and better understood in China. We propose that clearer rules and regulations on investment approval processes be issued by the U.S. government.
- With the support of the two governments, and the people of the two countries, there is a good chance that the full potential of the complementarities and deeper engagement can be realized.

F. Conclusion

From the preceding sections, it is evident that the U.S.-China economic relationship can and should be as interdependent as never before. Over the coming decade, with the determined efforts of the two countries, many economic opportunities and millions of new jobs can be created for the two peoples.

President Barack Obama said in his speech on 7 November, right after his re-election last year:

“We want our kids to grow up in a country where they have access to the best schools and the best teachers – a country that lives up to its legacy as the global leader in technology and discovery and innovation – with all of the good jobs and new businesses that follow.”

In a similar vein, China’s new leader Xi Jinping said upon his election as the General Secretary last November:

“Our people love life, and expect a better education, more stable jobs, a better income, more reliable social security, medical care of a higher standard, more comfortable living conditions, and a more beautiful environment. They hope that their children can grow up better, work better, and live better. People’s yearning for a good and beautiful life is the goal for us to strive for.”

The words spoken by the two leaders suggest that the two peoples share the same dreams for a better life for themselves and their children. Closer economic cooperation between the two countries will help turn that dream into reality. By 2022, on the 50th anniversary of President Nixon’s visit to China, it is our hope that deeper economic engagement for mutual benefit is what drives the further evolution of a lasting and mutually beneficial U.S.-China relationship, founded on trust, understanding and peace. The leaders of the two countries are beginning a

new term of office. The two countries are setting a new direction in economic development in order to provide sustainable growth and employment for their people. Working together, starting now, we can make this happen. Let us seize the moment.