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China's new dream

How will Australia and the world cope with the re-emergence of China as a great power?

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Executive summary

China's annual economic growth rate has slowed from double digits during most of the past 33 years to about 7.6%. The slowdown reflects weaker exports as a result of lower growth in the global economy and an unwinding of the aggressive macro stimulus program China introduced during the global financial crisis. The stimulus program led to excessive investment and a large increase in debt. The central bank and the new government now want to deleverage the economy and increase the role of consumption as a growth leader.

A plenary session of the Communist Party Central Committee in November 2013 announced far-reaching reforms to enhance the economy's performance during the next decade. The plenary communique emphasised that market forces must now play a 'decisive' role in shaping China's economy, whereas previous communiqués said that they'd play only a 'basic' role. Under the new plan, China will liberalise its financial system, increase dividends from state-owned enterprises, enhance the role of small and medium-sized enterprises, liberalise the Hukou system (a registration



Shanghai cityscape of The Bund and Huangpu River, 19 November 2013. © Matt Mawson/Corbis

system that determines the citizenship rights of rural people moving to urban centres), terminate the four-year work detention program for criminals or political dissidents, and relax the one-child policy. China needs to increase its birthrate because the labour force is now shrinking and the population is rapidly ageing. The new policy could produce 1.5–2.0 million more babies in two years compared to the 16 million born in 2012.

China displaced Japan to become the world's second-largest economy in 2010 and could overtake the US to become the largest economy during the next 10 years. China's now the leading trade partner for 124 countries, compared to 76 for the US. Its stock of inward foreign direct investment (FDI) has risen to \$832 billion (current US dollars¹). Only the US, France and the UK have more. China's also becoming an importer–exporter of capital. Its outward FDI was \$84.2 billion in 2012—a sum exceeded only by the US and Japan. China has \$3.7 trillion of foreign exchange reserves, the largest in the world. Japan's next, with \$1.3 trillion.

China is now the world's largest manufacturing nation. It has the biggest automobile industry, producing twice as many cars as the US. It consumes over half the world's semiconductor output and produces 75% of global output of mobile phones, 87% of personal computers and 52% of colour televisions.

China had four major advantages in pursuing rapid industrialisation. It had a large supply of low-cost labour. It regulated the financial system in such a way as to guarantee a low cost of capital for new investment. It maintained an artificially low exchange rate to bolster exports. It neglected the environment. All these factors are now reversing. The labour force is shrinking. Liberalisation of the financial system will raise interest rates. The exchange rate has appreciated 26% against the US dollar since 2005. China has severe pollution problems and is now being forced to greatly improve environmental regulation.

Five years ago, China displaced the US and Europe to become the world's dominant consumer of base metals. It now consumes 40% of global copper output, compared to 13% in 2000. It not only has a voracious appetite for raw materials, but is also making large investments in the natural

resource sectors of Australia, Canada, Africa, Latin America, Kazakhstan, Myanmar and other developing countries.

China's economic take-off has permitted a large increase in military spending. In 2012, Chinese defence spending was \$166.2 billion compared to \$22.2 billion in 2000. It's now second only to the US. As a result of its new military power, China has become more belligerent in its foreign policy. It's made claims over much of the South China Sea, provoking disputes with Vietnam and the Philippines. It's now disputing Japan's control over the Senkaku/Diaoyu Islands. It's announced a new air defence zone over the islands. Japan's alarmed about these overtures because its defence budget is now less than one-third of China's, whereas in 2000 it was more than twice as large.

The new president, Xi Jinping, appears likely to be the most powerful Chinese leader since Deng Xiaoping. His faction controls six of the seven seats on the Standing Committee of the Politburo. The recent plenary made him the leader of both the new national security and economic reform committees. There'll continue to be a free debate on many issues, and the government will carefully monitor public opinion on issues such as corruption and the environment. In pursuing economic and legal reforms, though, Xi won't tolerate any threat to the supremacy of the Communist Party. The Chinese political system will therefore continue to be an evolving story, combining an authoritarian leadership with a rising middle class demanding more accountability for the government's actions.

The re-emergence of China as a great power will be Australia's greatest foreign policy challenge during the 21st century. Canberra will have to carefully balance Australia's growing economic relationship with China and its traditional alliance with the US. The major threat to this balancing act would be if America's fiscal problems force it to slash defence spending and withdraw from the East Asian region. In such a scenario, Australia would cease to have a great-power ally and be more vulnerable to foreign aggression than at any time since 1942. The only Asian country with the long-term potential to challenge Chinese hegemony is India. Australia should therefore hedge its bets with the US and China by pursuing better relations with New Delhi.

The story

After over three decades of double-digit GDP growth, China has begun to slow down. The growth rate was about 7.6% during 2013, and forecasters project growth to hold close to those levels during 2014. The slowdown reflects a variety of cyclical and structural factors. The weakness of the global economy has depressed exports. The government pursued a highly reflationary monetary and fiscal policy during the global financial crisis. The policies led to a large increase in debt and overinvestment in some sectors, so the government's now trying to unwind them. China's embarking on a variety of structural reforms that could constrain the growth of hitherto dominant state-owned enterprises (SOEs) while offering more resources to the private sector. The success of these structural reforms will determine the economy's economic performance over the next 20 years.

China's achievements since it began a policy of economic reform during the late 1970s have been awesome. The country's nominal GDP has grown from \$532 billion in 1982 to \$9.3 trillion in 2013. China displaced Japan in 2010 to become the world's second-largest economy. Its GDP per capita has risen from \$277 to \$6,825. Its share of world nominal GDP has increased from 2.6% to 11.5%. On a purchasing power parity adjusted basis, it's 14.9%. In 1981, nearly 85% of China's population lived on less than \$1.25 per day—the fifth-highest poverty incidence in the world. By 2008, that ratio had fallen to 15%, well below the developing country average.

China achieved much of its success by pursuing a policy of market opening and globalisation. Its share of world exports has grown from 1.2% to 11.5%. It displaced Germany in 2010 to become the world's largest exporter of tradeable goods. China's now the leading trade partner for 124 countries, compared to 76 for the US. Its stock of inward FDI has risen to \$832 billion. Only the US, France and the UK have more. China now has 70 companies on the Fortune Global 500 list, compared to only 11 in 2002. Sixty-six of them are SOEs. China has \$3.7 trillion of foreign exchange reserves—the largest in the world (Japan's no. 2, with \$1.3 trillion). China's also becoming an outbound investor. Its FDI in other countries was \$84.2 billion in 2012, a sum exceeded only by the US and Japan. China's stock of foreign investment is \$91.2 billion in North America, \$80.24 billion in Europe, \$66.4 billion in Asia, \$57.77 billion in Oceania, \$57.69 billion in Africa, \$54.85 billion in Latin America and \$22 billion in the Middle East. China's financial sector is also developing

rapidly. The market capitalisation of its 16 largest banks is now \$941 billion. This number compares to \$370 billion for Australia's banking sector, \$278 billion for Japan, \$1.1 trillion for the US and \$464 billion for the UK. The Industrial and Commercial Bank of China has the largest market capitalisation in the world, at \$221 billion. In 2013, China had 122 billionaires, compared to 422 in the US, 110 in Russia, 39 in Hong Kong and 26 in Taiwan. Ninety per cent of China's billionaires also made their own fortunes—the highest percentage in the world.

These successes are now producing an element of hubris. Thirteen of the 20 tallest buildings currently under construction are in China. One is the Shanghai Tower, which will be the tallest in China and the second tallest in the world after the 828-metre Burj Khalifa tower in Dubai. A company in the central Chinese city of Changsha has announced plans to build an 839-metre tower in just three months, which would be the tallest in the world. The construction of tall buildings has often been a leading indicator of booms turning to busts.

China was able to achieve economic success because of a variety of factors. It offered access to a large low-cost supply of labour. In 1982, its population was young and only 20% urban. During the next 30 years, hundreds of millions of people moved to the cities and provided a large workforce for the development of the manufacturing sector. China kept interest rates artificially depressed and offered its corporate sector a low cost of capital in order to boost investment. The low interest rates penalised households and depressed consumption, but the government's goal was to promote industrialisation. It was a policy similar to that pursued by Japan during the 1950s and 1960s. China pegged its exchange rate to the dollar in 1994 and held it stable until 2005, despite the build-up of large trade surpluses. The exchange rate peg helped to bolster the competitive position of its manufacturing sector. China welcomed FDI, allowing foreign firms to both sell in the local market and use the country as an export base. The foreign firms offered China the technology and managerial competence to become a major exporter. In 2010, foreign firms accounted for nearly 60% of the country's exports. Japan and South Korea, by contrast, never welcomed foreign investment. They instead pursued protectionist policies to nurture local champions in sectors such as automobiles and consumer electronics. China's now developing its own global champions, but they still account for only a modest share of the country's total exports.

These traditional advantages are now fading. The labour force is shrinking and will age dramatically over the next 30 years. The annual growth rate of the population is now 0.48%, compared to 1.4% in 1990 and 2.9% in 1970. China's pursuing a policy of financial liberalisation, which will raise the cost of capital. Since 2008, there's been a large increase in corporate debt, which the central bank wants to slow down. Foreign firms are still keen to invest in China, but they now account for only about 4% of total investment. China began to liberalise its exchange rate policy in 2005, and the renminbi has appreciated 26% against the US dollar since that time.

China also has new constraints that didn't exist 20 or 30 years ago. For example, the environment's become a major concern. In 2010, the Chinese Academy of Social Sciences estimated that environmental damage cost the equivalent of 3.5% of GDP. The World Bank's study, *China 2030*, puts the cost even higher and well above the level for other countries. China's become the world's largest producer of carbon emissions. The World Bank says that 16 of the world's 20 most polluted cities are in China. There's now such severe air pollution in Beijing and other northern cities that growing numbers of people are wearing face masks or moving out. Some analysts estimate that a million people may have died from air pollution. Harbin recently had smog that produced concentrations of fine particulate matter (PM 2.5) as high as 1,000 micrograms per cubic metre. The US Environmental Protection Agency says that PM 2.5 should remain below 35 micrograms per cubic metre in order to be safe. Nineteen per cent of urban families have installed air purifiers, and 32% have water filters. In September 2013, the State Council announced that it would implement a tough action plan to reduce air pollution. China's 338 county-level cities must reduce airborne particles of 10 microns or under by 10% compared to 2012 levels within five years. In some regions, such as Beijing, Tianjin and Hebei, particulate matter up to 2.5 micrometres (PM 2.5) must be reduced by 25%. PM 2.5 must also be reduced by 20% in the Yangtze delta and 15% in the Pearl River delta. The province of Hebei is the worst polluter. It tops the league for all three major types of pollution: smoke and dust, sulfur dioxide, and nitrogen oxide. In 2012, Hebei produced more crude steel than any other region on earth—more than the 27 countries of the EU combined and more than twice that of the US. The Ministry of Environment estimates that 60% of Hebei's steel mills cause extensive pollution. As China's leaders must breathe the poisonous air that floats over from Hebei, they are

determined to clamp down on the pollution. In 2013, Hebei's share of China's steel production fell by one third. In January 2014 the government announced that Hebei would receive half the funds from a new RMB 5 billion program to combat air pollution. The government's actions in Hebei suggest it is finally serious about cleaning up the environment.

As China obtains about 70% of its power from coal and coal consumption has doubled since 2003, there'll be no simple solution to this problem. China's spending heavily to develop alternative power sources, such as nuclear, hydro and solar power. It currently accounts for 29 of the 64 nuclear power plants being built around the world, and it plans to build 200 by 2040 and to increase nuclear power output from 10.7 gigawatts in 2010 to 160 gigawatts in 2040. The problem is that these alternative sources currently account for only about 8% of power output and it will take time for them to become a large share of the total. Nuclear power will account for only 5% of China's power consumption in 2020.

China also has ambitious plans for natural gas. It hopes to produce 6.5 billion cubic metres (bcm) of shale gas in 2015 and nearly 80 bcm in 2020. China currently consumes 147 bcm of gas, which accounts for about 5% of total power consumption. The shale gas could boost that share to 7–8%. At this time, however, gas demand is rising more rapidly than supply and there could be a shortfall of 10 bcm for 2013. Coal will therefore remain dominant for several more years. As a result, the government has announced plans to introduce seven regional carbon emissions trading schemes during the next few years and to create a national one after that. The first began operating in Guangdong during December. The government has also banned new coal-fired plants in three metropolitan areas near Beijing. These areas represent 28% of the country's coal consumption, and the banned projects represent 5% of the nation's newly built coal-fired plant capacity. China also reduced the coal share of investment in new power-generating capacity from 71% in 2006 to 29% in 2013. In order to reduce air pollution, Beijing has announced that it will reduce the number of cars that can be sold in the city from 240,000 a year to 150,000 while increasing the share of battery-powered cars to 28%.

China also needs to raise energy prices because they are significantly below market levels and depressing the profitability of SOEs in the energy sector. The return on assets in oil refining is zero. In electric power, it's 0.4%; in thermal production, it's 3.2%. Those levels are below the

SOE average of 4.9%. China has enacted many environmental regulations during the past 20 years but never enforced them. The severity of the air pollution problem in many cities will force the government to take more effective action in the future. The new regulations will be a de facto tax on output and thus dampen the economy's potential growth rate. The desire to reduce carbon fuel consumption could also pose problems for countries that are important suppliers of coal to China, such as Australia and Indonesia. Reduced Chinese demand for coal could lead to large price declines.

The demographic challenge

One of China's greatest economic challenges during the next 50 years will be an ageing population. In 2013, 68.1% of its 1.39 billion people were of working age (defined as between the ages of 15 and 59). This compares to 59.8% in Germany, 60.7% in the US and 54.6% in Japan. Only 13.9% of China's population is over 60 years of age, compared to 19.7% in the US, 27.1% in Germany and 32.2% in Japan. For every Chinese citizen over the age of 60 in 2013, there were 4.9 people of working age. Unfortunately, these favourable demographic factors will deteriorate dramatically during the next 30 years. The Chinese birthrate has fallen to only about 1.66 per couple, compared to 2.0 in the US, France and the UK. It's closer to the rates in Japan, Korea, Germany and Italy—all countries with declining populations. China now has 120 million people over the age of 65, and that number is forecast to grow to 166 million by 2020, 229 million by 2030 and 331 million by 2050. At that point, 26% of China's population will be elderly, compared to only 7% in 2000 and 4.5% in 1950. The number of people under the age of 14, by contrast, will be 13.5% compared to 25.5% in 2000 and 34% in 1950. It will have taken China only 30 years to achieve as much ageing as occurred in Germany, Italy and Russia during a century. The speed at which China is ageing creates a dilemma: because it's still a developing country, its policymakers fear they could grow old before they grow rich.

The one-child policy has also led to a large number of abortions of female foetuses, which is resulting in a growing number of single men who will be unable to find wives. Before 1980, China had a normal gender ratio at birth (about 102–107 boys for every 100 girls), but an imbalance in the ratio started becoming apparent after the family planning policy came into effect. In 2010, there were 119 boys for every 100 girls at birth. From 1983 to 2010, more than 41 million

more boys than girls were born, and from 2001 to 2010 an average of 1.3 million more boys were born each year. China's sixth national census, conducted in 2010, shows that about 11.96 million men in their thirties remain unmarried, while the corresponding figure for women was 5.82 million. Most of the men who'll be unable to find wives are poor, so they represent a possible threat to social stability.

China will need to create a national pension system to care for its ageing population. It currently has a scheme (called the Urban Enterprise Pension System, or UEPS) that provides benefits for urban workers in large businesses, including foreign and private firms as well as SOEs. More recently, the central government has implemented two voluntary pension systems—one for rural workers and another for non-employed urban residents. The system is very fragmented, as it's financed by local city or provincial governments, often with different ground rules. The fact that the system is local creates problems for people who want to change cities in pursuit of new jobs. Their benefits aren't easily portable. The system also discriminates against people moving from the countryside to the cities. Under China's Hukou system, rural migrants to the cities don't qualify for local social services, including pensions. As a result of these constraints, less than half of China's adults are covered by either a civil service pension or the UEPS.

The UEPS also has potential funding problems. The employer is supposed to contribute 20% of a worker's wage to the fund, while the worker contributes 8%. The employer's contribution goes into a social pool that's used as part of a pay-as-you-go defined benefit plan. The employee's contributions are deposited into an individual account. Most local governments have found that the social pooling contributions are inadequate to pay current benefits, so they've borrowed from the individual accounts in order to pay benefits to current retirees. It's estimated that this borrowing has produced shortfalls of 90% in the individual accounts. This is widely called the problem of 'empty accounts' and has produced great distrust among workers about the safety of their retirement assets. China can sustain these funding gaps in the short term because it has far more workers than retired people, but it will have to provide new sources of funding as the population ages.

There's also a good case for raising the retirement age. The current retirement age for urban workers is 55 for men, 55 for technical or managerial women and 50 for the rest. These age

thresholds were introduced during the 1950s, when Chinese citizens' life expectancy at birth was 45 years. Now that it's 73.5 years, there's a good case for hiking the retirement age. The average retirement age for countries in the OECD is 64 for men and 63 for women.

In the past, China's elderly lived with their families, but many will need other options now that the country's over half urban and 260 million rural people have moved to the cities. China has just 3.9 million beds in nursing homes, or enough for 2% of the population over the age of 60. The government's pledged to add another 2.2 million beds by 2015, but that will still cover only about 3% of the elderly population. There'll have to be a huge expansion of nursing homes during the next 30 years to care for China's ageing population. Surveys indicate that 36% of China's people are now prepared to put their parents in nursing homes.

China will also need to expand its hospitals in order to care for an ageing population. In 2013, it had 13,427 government hospitals, compared to 15,727 in 2003. The number of private hospitals, by contrast, has been rapidly increasing. It's grown from 6,240 in 2009 to 10,795 in September 2013. These hospitals tend to be small and highly specialised, so they account for only about 580,000 beds, compared to 3.58 million for the government hospitals. Between 2005 and 2011, hospital revenues tripled, growing from 424 million to 1.245 billion renminbi (rmb). Forty per cent of their revenue came from the sale of drugs and 49% from providing services. China's total health care spending grew by 163 times between 1982 and 2012 to 2.891 billion rmb. Per capita health care spending grew 122 times, compared to 73 times for per capita income.

Average spending per outpatient grew from 3,842 rmb in 2008 to 5,896 rmb in 2012. As the number of outpatients grew at a 7.7% annual rate during the 2005–2012 period, China's health care spending has the potential to more than double every five years.

The government's concerned about these demographic trends. After the recent party plenary, it announced plans to liberalise the one-child policy, which was introduced over 30 years ago because China was concerned about overpopulation. Government officials say that the policy has reduced the population by about 400 million, but some demographers dispute that claim. They point out that many developing countries had large declines in birthrates during

the past 40 years without any coercive policies. China's birthrate fell from 33.4 per thousand in 1970 to 15.6 per thousand in 1998. In a comparison group of 16 countries that had populations of over 1 million and birthrates equal to or higher than China's, the average birthrate dropped to 22 per thousand from 35.6 per thousand in 1970. The birthrates of Korea, Taiwan, Thailand and Singapore are now below China's.

China liberalised its one-child policy in the mid-1980s because of widespread protests against the policy's coercive effects. It allowed rural couples, who want sons to help on the farm, to have a second child if their firstborn was a girl. The government later allowed all couples to have a second child if both parents lacked siblings. Couples will now be able to have a second child if only one of them is an only child. China has 98 million women aged 30–39, of whom about 35 million are urban and 63 million are rural. It's estimated that about 48% of them could qualify for a second child. If we assume that 30% of the urban women decide to have another child, there would be 5.1 million new babies. As the birthrates in China's largest cities are well below the national average, most analysts are sceptical about such a large number and believe that births could increase by 1.0–1.5 million per year compared to 16 million births at the current time. Credit Suisse estimates that there'll be 8.3 million additional births between 2014 and 2020. Such a modest increase in the number of births won't resolve the economic problems created by China's ageing population.

China's urban areas have been able to compensate for the nation's declining population growth by importing labour from rural areas. Between 2000 and 2010, labour force growth slowed to 1.1% a year, but non-farm employment grew at a 3.4% annual rate. In 2011, the labour force shrank by 0.4%, but non-farm employment still grew by over 3.0%. Chinese economists estimate that 70 million people could move from the rural areas to the cities between 2011 and 2020. This will permit non-farm employment to grow by 1.8% a year.

China can maintain a high growth rate with only modest gains in the labour force by boosting productivity. During the past three decades, it's estimated that the labour force accounted for only 1.3% of China's total output growth of 10.3%. The rest came from investment in fixed capital and human capital as well as total factor productivity. The government's sharply increasing its investment in human

capital. It boosted education spending by 28% in 2012 and finally achieved its target of 4.0% of GDP for the first time in 20 years. In 2013, Shanghai students took first place in the PISA test of mathematics performance in schools all over the world, with a mean score of 613 compared to 573 in Singapore, 536 in Japan, 506 in the US and 504 in Australia. Chinese colleges now produce 7 million graduates per year, compared to only 1 million 15 years ago. Two million major in engineering. China now sends about 400,000 students abroad for education, compared to only 120,000 in 2003. There are 235,597 Chinese students in the US alone. China's sent 2.64 million students overseas since 1978, but only 1.09 million have returned. In 2008, the government launched the Thousands Talent Plan to tempt the well-educated Chinese expatriates to return home, but the results so far have been mediocre. Highly educated Chinese and wealthy Chinese have a strong desire to obtain foreign passports because of concerns about their country's political system and the risks it could pose to people highly critical of it. They've also enjoyed great success in countries such as the US and thus have a strong economic incentive to remain overseas. In 2011, 150,000 Chinese secured permanent residency abroad. In the same year, the US Government gave 80,000 Chinese green cards to become permanent residents.

China's changing output mix

China currently has one of the highest investment ratios ever recorded in economic history. It's about 48% of GDP, compared to 25–35% in other emerging market economies. China's investment ratio was only 38% 10 years ago. It's risen sharply during recent years because of large increases in infrastructure and real estate investment. China announced a big infrastructure spending program during the global financial crisis because it suddenly lost 20 million manufacturing jobs. There was also a large increase in bank lending, which helped to fuel property development at a time when the country was still urbanising at a rapid rate. China's capital stock is equal to about 304% of GDP, compared to 433% for Japan, 337% for Korea, 353% for Australia and 270% for the US. Its per capita capital stock, by contrast, is far more modest. It's about \$15,600 in constant 2005 US dollars compared to \$300,200 for Japan, \$141,100 for Korea, \$243,500 for Australia and \$224,300 for the US.

Economists who are pessimistic about China's economy believe there's been significant overinvestment, which will

lead to a sharp decline in capital spending during the next few years. They say there's significant overcapacity, which will squeeze profit margins and force firms to retrench. At the end of 2012, the capacity utilisation rate was 72% for iron and steel, 73.7% for cement, 71.9% for electrolytic aluminium, 73.1% for sheet glass and 75% for shipbuilding. The excess capacity has caused the producer price index to decline for the past 18 months.

The pessimists also point to the large increase in debt since 2008 to justify their fears. China's total debt increased from 135% of GDP in 2000 to 235% in 2013. If we break down that debt, the central government accounts for 23%, local governments for 33%, corporations for 155% and households for 24%. Central government debt has declined from 32% of GDP in 2005 to 23% recently. Local government debt increased from 13% of GDP in 2005 to 33% because local governments played a major role in carrying out the central government's ambitious infrastructure spending program. China's debt to GDP ratio is smaller than Malaysia's and Taiwan's, but higher than India's and Indonesia's. It doesn't appear to pose major credit quality problems because corporate lending is overwhelmingly to large SOEs that have stable cash flows. The local governments pose more risk, but the central government won't allow them to default because they borrowed to carry out a national infrastructure policy. The household debt ratio of 24% is very modest by international standards. It's four or five times as high in the US, the UK and Australia. In some cities, half of homebuyers pay cash for their new properties, while 80% of auto buyers pay cash. The one uncertainty about credit quality is the large increase that occurred in lending to small and medium-sized enterprises during the monetary reflation policy of 2009 and 2010. In that period, lending to household businesses increased by 1.76 trillion rmb, to small firms by 3.11 trillion rmb, to medium-sized firms by 3.49 trillion rmb, and to large firms by 3.91 trillion rmb.

This upsurge of lending to small and medium-sized enterprises was a major break from the banks' tradition of lending primarily to large SOEs. It's a very positive development for encouraging the growth of China's service sector and new employment opportunities, but it does create greater credit risk in the event of the economy having a sharp slowdown. The current non-performing loan ratio at major Chinese banks is less than 1.0%, but some bank managements have said this number could rise to 3–4% over the next three years.

While China's financial system is dominated by four large state-controlled banks, there has been rapid growth during recent years in a shadow financial system. As savers earn a low rate of return on bank deposits, they seek higher returns in other products. One of the most rapidly growing sectors has been wealth management products offered by trust banks. They typically pay yields of 6% or more compared to 3% on bank deposits. These products have grown so rapidly they now account for over 10% of China's bank deposits. Investors have bought these products from their banks because they thought they were safe but there are new signs of tension in the sector. The Industrial and Commercial Bank of China recently announced that it would not protect investors in a 3 billion rmb wealth management product it sold them. Funds from these products are often invested in higher risk loans in order to maximise returns but they were usually sold with some form of bank guarantee. ICBC's decision is unprecedented and could cause investors to become far more cautious about purchasing new wealth management products. There's another major default pending which could jeopardize 1 billion rmb of securities sold by the Jilin Trust Bank. The securities were backed by loans to a northern Chinese coal miner, Liansheng, which is now going through a restructuring. If the banks do not protect investors from this default, it will also encourage further risk aversion towards wealth management products.

The major area of credit risk would be a sharp decline in real estate values, but since China is still urbanising and government officials are themselves major real estate investors it's doubtful that the central bank will allow a major decline to occur in the property market. The government tried to clamp down on property lending two years ago to stop rising property prices but then relented, and there have been large gains in property values during the past year.

China has used its capital spending boom to significantly expand and upgrade its manufacturing sector. This development is apparent in the country's trade statistics. Only about 15% of China's manufactured exports is now from labour-intensive sectors, such as textiles and shoes, while the great bulk is from high-technology sectors. In 2013, China exported \$151.8 billion worth of electrical machinery and appliances, \$116 billion of telecommunications and sound recording products, \$102.6 billion of office and data processing equipment, \$47.6 billion of general industrial machinery and equipment, and \$31.2 billion of road vehicles.

In 2012, China accounted for 52.5% of global semiconductor consumption. The demand for semiconductors reflected its strong position in the production of smartphones and media tablets. In 2012, it accounted for 74.7% of global output of mobile phones, 86.6% of personal computers and 52.3% of colour televisions. Multinational firms outsource production of these goods, and Taiwanese firms such as Foxconn use China as their export base. Korea and Taiwan became major players in the electronics sector when their capital deployed per worker reached 60% of the global average. China is ahead of schedule because of its large amount of FDI.

China's also a major player in the machine tool industry. In 2009, it accounted for 44% of global machine tool consumption, compared to 13% for Germany, 8% for Japan and the US and 6% for Korea. Its share of global machine tool production was 27%, compared to 19% for Germany and 13% for Japan. China's capital spending creates great demand for machine tools.

Deloitte Touche Tohmatsu Ltd and the US Council on Competitiveness produce a regular report on the competitiveness of major countries. The 2013 report says that China's the most competitive country and will remain so for at least five more years. China ranks high for factors such as cost of labour and materials, supplier networks, government investment in manufacturing and innovation, and local market attractiveness. It ranks in the middle for physical infrastructure, tax and financial systems, and energy costs. It ranks low for the quality of health care and the legal system. The country with the lowest rankings compared to China is India.

China now has the world's largest auto industry. In 2012, its auto output was 19.27 million vehicles, compared to 10.3 million in the US, 9.9 million in Japan, 5.6 million in Germany and 4.6 million in Korea. In 2000, its auto output was only 2.1 million vehicles. Foreign firms have played a major role in creating the large auto sector through joint ventures with local companies, and those ventures now account for a large share of their global sales. In 2012, China accounted for 28.8% of total auto sales for Volkswagen, 28.9% for General Motors, 20.9% for Nissan, 19.5% for Hyundai, 17.7% for Kia, 17.1% for Honda, 14.8% for Peugeot, 13.8% for Mazda, 8.4% for Ford, 8.0% for BMW and 7.6% for Toyota. Among the foreign companies, the largest market shares within China are held by Volkswagen at 26% and General Motors at about 12%. All others are below 10%. Foreign firms control 74% of the market.

China's a very competitive auto producer because its labour costs are about \$4.46 per hour compared to \$35.53 in the US, nearly \$60 in Germany and France, \$52 in Australia and about \$45 in Japan. China's closest competitor is Mexico, at \$6.48 per hour. China currently has a car ownership ratio of 79.4 per thousand people. It's about where Korea was in 1990, when the two countries had similar per capita income. Korea's ownership ratio rose to 207.7 per thousand people by 1996. China's could rise to 227 by 2020, giving it a total auto population of 318 million vehicles.

China now exports about 1 million autos and commercial vehicles a year. With the exception of Honda, the foreign firms don't export because they don't want to share profits in foreign markets with local joint venture partners. Honda has a plant that's 100% owned and can export 150,000 autos. In 2012, Chery was China's largest auto exporter, with sales of 184,757 units. It was followed by Geely, Great Wall and SAIC with sales close to 100,000 units. Geely's car exports overtook Chery's in mid-2013, and it plans to obtain 50% of its sales from foreign markets by 2018. It also took over Volvo in 2010, giving it better access to markets in Europe and North

America. China doesn't have high enough quality cars to sell in the developed markets. Its largest export markets are in Algeria, Iraq, Russia, Iran and Chile. China now accounts for 22.9% of global auto output, primarily through domestic sales. Its domestic companies will gradually move upmarket and have more potential to export, but the opportunities are so great in the local market that they'll achieve most of their sales growth there.

China's had mixed results in its attempt to dominate the solar power market. The government made this sector a major priority five years ago and had the China Development Bank lend the major companies over \$31 billion in 2010. There were also large subsidies from local governments. This policy helped Chinese solar power companies to increase output 17-fold in four years and achieve a global market share of 63%, but it also led to great excess capacity and large price declines for solar power products. A recent report from GTM Research and the Solar Energy Association reveals that global solar manufacturing capacity stands at 70 gigawatts per year, whereas demand is about 31 gigawatts. China's manufacturing capacity is about 50 gigawatts. The US



Geely cars to be shipped are lined up on a quay at the Port of Haishan in Ningbo, east China's Zhejiang province, 5 August 2013. © Imaginechina/Corbis

Government alleged that China's subsidies for the sector were unfair trade competition and imposed high tariffs on the sector. Chinese exports drove the US market share in the solar power sector down from 30% to 7%. Some European officials favoured the same policy, but Germany lobbied against high tariffs because of concern about how China might retaliate against Germany's capital goods exports to the country.

China's largest solar power company, Suntech, went bankrupt in March 2013 and later sold its largest manufacturing facility to another Chinese company. China's solar power exports fell 40% in 2012, and more than half of the sector's small producers suspended production. China's major advantage in the solar power sector is the large economies of scale it enjoys from having big companies. Because concern about global warming will cause demand for solar products to increase, China will ultimately benefit from its large investment in the sector, but the fact that a major producer went bankrupt demonstrates how insensitive Chinese industrial policy can be to commercial considerations. It pursued market share irrespective of its impact on profitability. The resulting price declines bankrupted many solar power companies in Europe and the US and led to trade sanctions by the US Government.

As a result of the precedent set by the solar power sector, the risk of new trade sanctions will be high if China attempts to achieve large global market shares in other sectors with government subsidies. China was able to use government subsidies generously in the early stages of its industrialisation. It can't do so when it's become the world's largest exporter of tradeable goods.

As a result of China's export success, manufacturing now accounts for about 30% of total employment. Japan achieved that level of manufacturing employment in 1963 and Korea in 1983. Where China differs is in its large share of agricultural employment and modest share of service employment. Agriculture employs 37% of China's people and the service sector 35%. In 1963, Japan had 37% of its people employed in agriculture and 43% in services. In 1983, Korea had 28% employed in agriculture and 43% in services. As China urbanises, the share of the population employed in agriculture will probably drop to less than 30% by 2025.

China's trying to become more competitive in the high-tech sector by increasing its R&D spending. The Battelle Institute

reports that China spent \$198.9 billion (in purchasing power parity terms) on R&D during 2012, compared to \$436 billion in the US, \$157.6 billion in Japan and \$90.6 billion in Germany. China has increased its R&D spending by 33% since 2010, compared to gains of 5% for the US, 6.3% for Japan and 9.2% for Germany. It now spends 1.6% of GDP on R&D, compared to 2.8% for the US, 3.5% for Japan and 2.0% for Europe. In 1995, China's R&D spending was only 0.6% of GDP.

Booz and Co. conducts an annual survey of corporate R&D spending. It found that China's corporate sector R&D spending rose 35.8% in 2012 and now accounts for 3.2% of global corporate R&D spending, compared to only 0.4% in 2008.

China's also been increasing its number of patents. The US and Japan rank at the top with market shares of 35% and 27%, but China now obtains twice as many patents as Europe and South Korea—countries with which it held a similar ranking five years ago. Japan, the US and Korea have similar ratios of patents in IT, audiovisual technology, electrical devices, consumer goods, agriculture, telecommunications and chemical engineering. Japan and the US compete for the top spot in these categories, except for chemical engineering, in which the US is no. 1 and China is no. 2. China focuses its patents on (in declining order) digital computers, telephone and data transmission systems, broadcasting, radio and line transmission systems, polymers, and electro-(in)organic materials.

The Chinese Government promotes R&D with tax deductions for R&D expenses and preferential low-cost loans. Local governments also play a role, providing monetary grants to firms that obtain international patents. China has increased its annual output of scientific papers to more than 120,000 a year, second only to the US, which has 340,000 annual publications. In 2006, China surpassed the output of scientific papers from Japan, the UK and Germany, which have plateaued at about 80,000 papers a year. The Chinese Government has made public efforts to calibrate standards for academic publishing to Western levels, but China doesn't yet score at high levels. It ranks last in a list of 20 countries polled in citations for articles, with an average of only 1.5 citations per article, according to reports by Elsevier.

The government's trying to promote effective commercialisation of R&D outputs. In 2010, it allocated \$125 million to promote the application of R&D in the

commercial sector. The allocation was targeted at projects in key mechanical components and low-carbon, environmentally friendly industries. Battelle estimates that China's increasing R&D spending so quickly that it might overtake the US by 2023, when its spending will probably exceed \$630 billion. As a result of the sequestration of federal expenditures, the US Government is cutting discretionary spending on R&D, while business is upset that the Congress recently allowed R&D tax allowances to lapse. If China becomes no. 1 in global R&D spending, it will shift from being primarily an assembler of imported components into becoming a leader in the creation and design of new products.

China's increasing success in the high-tech sector has been matched by a rapid increase of internet penetration and e-commerce. China has 1.2 billion cellular phones and 600 million people who use the internet, but penetration is still low compared to other countries. In the five years to 2012, the number of fixed-line broadband subscribers rose by 171% to 191 million households. This equates to a penetration rate of only 31%, compared to 76% for the US and Korea. The number of mobile broadband subscribers has increased 23 times over the past four years to 233 million but, again, this represents a penetration ratio of only 21% compared to 99% for Japan, 81% for the US and 75% for Korea. The government hopes to boost fixed-line broadband penetration to 70% by 2020 and mobile broadband penetration to 85%. As a result of rising internet access, e-commerce is booming. Non-food online retail sales could rise from 6.2% of total non-food retail sales in 2012 to 14.6% by 2017. China's achieved as much growth in non-food online sales since 2010 as the US did in 10 years.

The internet companies are also posing a major challenge to China's banks. They're offering online payment services, creating money market funds and offering small business loans. At Alibaba, the e-commerce company, small and mid-size vendors in its network can apply for loans. Alibaba has financed the working capital of 320,000 companies with \$16 billion of loans on the basis of its transaction data with the companies. Alibaba also offered a money market fund in June 2013 with yields of 5–6%, which attracted over 100 million rmb in deposits in just five months. The success of the internet companies in financial services will force the government to liberalise the rules governing the traditional banks.

There's one investment sector where growth could slow during the next seven years compared to the past 10 years. Goldman Sachs estimates that the government will spend 11.7 trillion rmb per year on infrastructure fixed investment between 2013 and 2020. This will produce a compound annual growth rate of 11.1%, compared to 21.0% between 2003 and 2012. This will reduce the infrastructure contribution to real GDP from 1.4% in the 2005–2012 period to 0.5% during the next six years. The largest contribution to GDP growth from infrastructure was 3.2% in 2009. It then slumped to 1.1% in 2010 and 0.2% in 2011 before rebounding to 0.7% in 2013. The breakdown of the spending on a cumulative basis will be 22.2 trillion rmb for utilities, 39.4 trillion rmb for transportation, and 40.7 trillion rmb for water conservation and environmental protection.

In August 2013, China established a new free trade zone in Shanghai. The zone covers an area of only 28 square kilometres, but it's regarded as an important breakthrough because it will concentrate on the service sector, whereas previous free trade zones focused on manufacturing. The State Council identified six key service sectors for further opening in the Shanghai zone: finance (such as banks, medical insurance and leasing); shipping, telecoms and computer games; professional services (such as legal services, credit investigations, travel agencies, investment management, construction and project design); cultural services; and social services (such as education, training and medical services). Many economists hope the zone will be used to accelerate financial reforms, which will happen more slowly in the rest of China. The zone promises to give equal access to foreign companies, but the government published a long negative list that will impose 190 special regulatory measures on sectors accounting for 17.8% of all industries in the country. Optimists believe the zone will demonstrate China's ability to liberalise its service sector and protect intellectual property rights. They hope success in these areas will open the door for China to ultimately join larger free trade areas, such as the Trans-Pacific Partnership.

China's need for commodities

The world passed an important economic landmark five years ago, when China displaced the US and Europe to become the world's largest consumer of base metals. In 2010, commodity imports accounted for 37% of China's imports, compared to 13% in 1986. In 2000, China consumed only

13% of global copper output, but in 2010 it consumed 39%, compared to 20% for Europe and 9% for the US.

A similar trend is apparent in other metals. In 2010, China:

- consumed 45% of lead output (US, 15%; Europe, 17%)
- accounted for 43% of global zinc consumption (US, 7%; Europe, 20%)
- consumed 40% of global aluminium output (US, 11%; Europe, 20%)
- accounted for 37% of global nickel consumption (US, 8%; Europe, 25%)
- accounted for 60% of global seaborne iron ore trade (Europe, 11%; Japan, 13%).

In 2012, China produced 708.7 million tonnes of steel, compared to 128.5 million tonnes in 2000. Japan came second with 107.2 million tonnes of steel output, followed by the US with 88.5 million tonnes and Korea with 69.3 million tonnes. The rapid growth in steel output has turned China from a coal exporter into a coal importer. In 2010, it imported 48 million tonnes of metallurgical coal compared to 58 million tonnes for Japan and 28 million tonnes for Korea. China also imported 129 million tonnes of thermal coal, compared to 129 million tonnes for Japan and 91 million tonnes for Korea. Analysts predict that China could account for 23% of global trade in thermal coal by 2016, compared to only 5% in 2006. China currently accounts for half of global coal consumption, and two-thirds of it's used to generate electricity. China was an oil exporter in the 1980s, but now has the world's most rapidly growing oil imports and consumes nearly 9 million barrels per day. BP is forecasting that Chinese demand could rise to 17.5 million barrels per day by 2030, displacing the US as the world's largest oil consumer. As a result of this growing energy demand, China will have to import 80% of its oil and 42% of its natural gas.

China's burgeoning demand for raw materials has created a super cycle for commodity prices. They rose sharply before the global financial crisis, declined briefly in 2008 and early 2009, and then rebounded as China pursued highly inflationary policies in 2009. They remained high until a global economic slowdown in 2012 and 2013. The 2009 price recovery was the first to occur during a global recession and to be led by Chinese demand.

China's current five-year plan projects that there'll be less robust growth in raw material demand in the 2011–15 period than during the previous 2006–10 plan period. The current plan projects:

- copper consumption to grow at a 5.2% compound annual rate (2006–10: 15.0%)
- aluminium demand to grow at 8.6% (2006–10: 17.5%)
- nickel demand to grow at 6.1% (2006–10: 21.4%)
- zinc demand to grow at 5.2% annual rate (2006–10: 11.5%)
- lead demand to grow at 7.9% (2006–10: 16.5%).

China's need for raw materials hasn't only led to a large increase in imports, but has also caused China to emerge as an important investor in the global natural resource sector, challenging the traditional dominance of Anglo-Saxon firms headquartered in Australia, the UK, Canada and South Africa. About 68% of China's outward FDI between 2005 and 2013 was in the metals and energy sectors.

Chinese companies have launched takeover bids for mining and oil companies on the stock exchanges of Canada, Australia and South Africa and AIM in London. They're also active players in the mergers and acquisition market. In 2012, China did 147 deals with a value of \$21.7 billion, accounting for 21% of global deal volume and making it the most acquisitive nation in value terms. China's Iron and Steel Association says it wants at least half of China's iron ore imports to come from Chinese-owned mines.

Fitch expects Chinese oil companies to continue to be active bidders because they currently have only between 6% and 25% of their reserves in other countries. China has three major oil companies listed on the stock exchanges in New York and Hong Kong: PetroChina, Sinopec, and China National Offshore Oil Corporation (CNOOC). The first two have large oil production, refining and distribution businesses in China; the third operates primarily as an oil exploration and development company in other countries. PetroChina is the largest, with a market capitalisation of \$200 billion, followed by Sinopec (\$95.5 billion) and CNOOC (\$82 billion). These market caps compare to \$230 billion for Shell and \$151 billion for BP. Exxon is still the world's largest oil company, with a market cap of \$443 billion.

China has one of the largest foreign aid programs in the world as a consequence of its search for raw materials. According to a study by the Rand Corporation, China had a foreign aid budget of \$189.3 billion in 2011 compared to \$1.7 billion in 2001. Between 2001 and 2011, China's pledged foreign aid was \$671 billion, divided among 93 developing countries. About 80% of the aid is allocated for the development of natural resources and, secondarily, for infrastructure. It also takes the form of loans rather than grants from China's two large policy banks—the China Development Bank and the Export-Import Bank. The loans provided by the banks typically carry a 3% yield and have a repayment schedule of 15 years, plus an additional five-year grace period. As the aid program clearly has a commercial purpose, it's controlled by the Minister of Commerce, not the Foreign Minister. China is likely to continue this large aid program because it plays a critical role in obtaining access to raw materials in developing countries. It has also given Chinese construction companies a major role in global infrastructure development. The value of their overseas contracts was \$302.7 billion between 2005 and 2013. The value rose to \$52 billion in 2012 from only \$8.7 billion in 2005.

China's largest target for FDI has been Australia. According to government data, China has \$22.9 billion of investment in Australia, while the special administrative region of Hong Kong has \$42.1 billion. A Heritage Foundation survey of Chinese FDI suggests that the number could be as high as \$58.2 billion. Australia now sends nearly one-third of its exports to China, the largest commodity items being iron ore and coal. China has also made takeover bids for small Australian exploration companies active in Africa. These deals include the \$2.4 billion takeover of the Namibia uranium producer Extract Resources, the \$1.2 billion takeover of the DRC explorer Anvil Mining, and a \$300 million investment in Aquila Resources which mines manganese and iron ore in South Africa. Australia has many small mining companies which need large amounts of capital to develop their projects. China has such capital. The Anglo-Australian mining giant, Rio Tinto Group, also has a joint venture with the Chinese mining company, Chinalco, to develop the large Simandou iron ore mine in Guinea.

China's investing next door to Australia in Papua New Guinea (PNG). It's currently developing the \$1.4 billion Ramu nickel and coal project in a joint venture with an Australian company. There have been conflicts with local landowners,

but the Chinese resolved them by giving the landowners a 2.5% shareholding in the project and a promise that there'd be community development activities, such as microfinance loans and scholarships for local students to attend university in Beijing. The two countries have had diplomatic relations for 35 years, but China didn't take a strong interest until it began searching for raw materials. PNG traditionally ran a trade deficit with China because its exports there were predominantly logs, palm oil and sawn timbers, but it's now running a surplus because of metal exports. In 2010, China accounted for 7.1% of PNG's exports and 7.9% of imports.

China has made \$12 billion of direct investments in oil sands projects in Alberta, Canada, and launched a \$15 billion takeover bid in 2012 for the Canadian oil company, Nexen. The Canadian Government wants to build a new pipeline across northern British Columbia to help export Alberta oil to China, but the project's been resisted by Indian tribes in the region. Canada wants to develop the Chinese market for its oil because American environmentalists have opposed the construction of a pipeline from Alberta to Texas. CNOOC has announced plans for a massive new liquefied natural gas project on the coast of British Columbia. It's asking the government for permission to export 24 million tonnes of supercooled gas per year over a period of 25 years from a proposed terminal at Grassy Point in the north of the province. It would start shipping the first gas between 2021 and 2023.

The Chinese failed in a takeover bid for the American oil company, Unocal, in 2005, but they've subsequently made several multibillion dollar investments in American shale oil and gas projects. The companies in this sector need more capital, and China's anxious to learn more about their technology because it has large shale oil and gas deposits of its own.

China has become an active investor in Latin America through direct investments and takeover bids on the Toronto Stock Exchange for companies with Peruvian and Chilean mineral deposits. Chinese FDI in Latin America between 2005 and 2013 was \$65 billion. \$36.8 billion of this total went to the energy sector and \$17.7 billion to mining. China's two large government banks, China Development Bank (CDB) and Export-Import Bank of China, also made large loans to the region. Between 2003 and 2011, they lent Latin America \$79 billion. This was greater than the \$57 billion

offered by the World Bank and the \$78 billion provided by the Inter-American Development Bank. This lending helped to give Chinese companies \$37.5 billion of construction projects in the region between 2005 and 2013.

The CDB lent Brazil's Petrobras \$10 billion in 2009 in return for China having the right to purchase 200,000 barrels per day of oil 10 years after its new fields commence production. In October 2013, two Chinese oil companies obtained a 20% shareholding in a new lease for the Libra oil field, potentially Brazil's largest. These stakes mean that all four of China's large state-controlled oil companies have become investors in Brazil, with a total investment valued at \$17 billion. Brazil's planning large increases in oil output because of its new salt dome deposits, so it's keen to have China as both an investor and a potential export market. China's trade with Brazil grew from \$2.85 billion in 2000 to \$84.2 billion in 2011, while total Chinese FDI in the country is \$28.2 billion. Brazil now sends \$52.4 billion of exports to China each year and runs a large trade surplus with the country. China's become Brazil's largest trading partner and takes 17% of its exports.

The CDB lent Venezuela's Bank for Economic and Social Development \$37 billion, making it the CDB's largest foreign client. The loans are secured by Venezuela's national oil company's future oil sales to China. Chinese oil companies will pursue joint ventures with the Venezuelans to explore for oil in the Orinoco Basin. China has \$14.7 billion of FDI in Venezuela.

China's become a large investor in Argentina through takeovers of natural resource assets from existing companies. China Petroleum and Chemical paid \$12 billion for the Argentine assets of Occidental Petroleum. CNOOC paid \$3.1 billion for 50% of the Argentine oil company, Bidas. A Chinese state company also made a \$1.5 billion investment to develop 300,000 hectares of arid farmland in Rio Negro province to produce food supplies for China. Argentina is a major exporter of soybeans and soyoil to China, producing 55 million tonnes of soybeans a year compared to only 15 million tonnes in China. There have been political tensions over Argentina's rapidly increasing imports of Chinese consumer products, but the political leadership in both countries is committed to making the relationship work. China is now Argentina's second largest trading partner after Brazil, and China has \$11.7 billion of FDI in the country.

China's announced an ambitious plan to build a 'dry canal' railway project that would link Colombia's coal-rich

northeastern provinces with ports on its west coast. The CDB would fund the project with a \$7.6 billion loan, and it would be operated by the China Railway Group. The goal would be to move 40 million tonnes of cargo per year from the Colombian heartland to the country's Pacific ports. Colombia is the fourth-largest exporter of coal, and major new mining projects now underway could boost its output from 87 million tonnes in 2011 to 150 million tonnes by 2020. Chinese oil companies have also invested in a variety of oil projects that export to Asia. As a result of this burgeoning relationship, China has begun negotiations on a new free trade agreement (FTA) with Colombia.

Chile was the first Latin American nation to establish diplomatic relations with China, during the Allende government of the early 1970s. In 2005, the two countries signed an FTA. Chile's exports to China accounted for 25% of its total exports in 2010, compared to only 8.3% in 2003. China is now Chile's largest trading partner and has invested \$4 billion there.

China has a rapidly growing trade and investment relationship with Peru. It's investing in a variety of mineral projects, and the total investment could reach \$10 billion by 2016. Chinese companies have also been active in the petroleum sector for several years and are now Peru's second-largest oil producer. Peru and China signed an FTA in 2010. Four products account for 83% of Peru's exports to China: copper, iron, lead and fishmeal.

China's become a major economic force on the African continent. Sino-African trade has grown from only \$10 billion in 2000 to over \$200 billion in 2012. An IMF report in October 2013 found that every 1% increase in China's domestic investment boosts African exports by 0.6%. China also has a wide variety of investment projects in Africa. Between 2005 and 2013, there was \$62.5 billion of Chinese FDI in Africa. \$25.5 billion of this total went to the energy sector and \$25 billion to mining. There are 38 Chinese mining bureaus around the world. Twenty-one are in Africa compared to six in Latin America, eight in Asia, and two in Australia. China has also had \$75.5 billion of construction projects in Africa since 2005. The China Development bank and the Export-Import Bank of China have supported this activity with loans for infrastructure spending. The CDB also launched the China-Africa Investment Fund with \$1 billion of capital to promote private equity investments in Africa.

President Xi Jinping visited three African countries during his first overseas trip after assuming office. His predecessor, Hu Jintao, also made several trips to Africa. China hosts a major summit with Africa every three years which rotates between Beijing and Africa. This Chinese economic penetration means that only three African countries still maintain diplomatic relations with Taiwan.

In 2004, China offered Angola a loan of \$2 billion in order to lay the groundwork for investment in the oil sector. It's since provided an additional \$12.5 billion of credits for a wide range of projects. Angola's been repaying the loans with sales of petroleum. There are now 50 state-owned and 400 private Chinese companies operating in Angola, and 70,000 Chinese workers are employed there. The International Monetary Fund (IMF) was upset over China's first loan to Angola because it undermined the organisation's efforts to demand more transparency in Angola's public accounts. China sent a team to monitor Angola's economy, but it made no demands for greater transparency. Angola currently accounts for 16% of China's oil imports.

China's emerged as an important investor in the Democratic Republic of the Congo (DRC). The first major project came in April 2008, when two Chinese companies offered \$9 billion of infrastructure finance in return for copper and cobalt concessions. The IMF criticised the deal on the grounds of debt sustainability because the DRC already had \$11 billion of loans and was seeking to qualify for an international debt relief program. As a result of this criticism, the project was scaled back to \$6 billion and the Chinese Government withdrew its guarantee for the loan. The deal became a purely commercial transaction, but it opened the door to more Chinese investment in the DRC mining sector. Chinese companies own 60 of the 75 mineral processing plants in Katanga and buy more than 90% of the province's mining output. The government is happy with the investments by large Chinese companies but it is concerned by the many small operators who do not protect their workers or export metals without paying any tax. The communications technology company, ZTE, also secured 2.8 million hectares of land for palm oil production.



A giant advertisement poster for the Chinese National Petroleum Corporation (CNPC) is pictured in Khartoum, Sudan, 7 December 2007. © Peter Steffen/dpa/Corbis

China's had a mixed record of investing in Nigeria. In 2006, the China National Petroleum Corporation (CNPC) announced plans to invest \$2 billion in a refinery, but the deal fell through when the refinery was instead sold to a crony of the president. Despite this setback, China has pursued other deals. In 2006, the Nigerian Government and China Railway Construction signed an \$8.3 billion contract to rebuild the 2,733-kilometre colonial-era railway connecting Lagos to the northern city of Kano. In 2010, Sino-Nigerian trade rose to \$7.5 billion, from \$3.1 billion in 2006. China's total FDI in Nigeria now exceeds \$18.5 billion, of which approximately 75% is invested in the energy sector. The Chinese also made a multibillion dollar takeover of Addax Petroleum, which has oil reserves in Nigeria, Gabon and Cameroon.

China's offered Ghana a \$13 billion loan to fund energy, agriculture and transport projects. It's also invested several hundred million dollars in a variety of small industrial and agricultural projects. It is about to finance the construction of a new airport at Accra. The two countries had \$2.05 billion of trade in 2010, and it should expand further because of Ghana's recent emergence as an oil exporter. Chinese firms recently competed with Exxon to obtain some oil exploration permits. The Ghanaian Government favoured CNOOC because the China Development Bank offered the national oil company a \$2 billion concessionary loan to finance some infrastructure projects. The bank also offered to lend Ghana \$3 billion to finance a new gas pipeline, but that proposal led to a conflict with the IMF. Ghana belongs to an IMF debt relief program that requires it to limit commercial borrowing to \$800 million per year. Ghana said it would get around the rule by borrowing only \$800 million during the first year. China was angry about the IMF rule and regarded it as Western interference in its plan to bolster investment in Ghana.

China became a major investor in Chad after the two countries established diplomatic relations in 2006. Chad became an oil producer in 2003, and China opened the country's first refinery in 2011. The refinery cost \$844 million, and CNPC had a 60% shareholding in the project. Chad exports 140,000 tonnes of oil a year to China. The China Civil Engineering Construction Corporation also struck a deal with the government to spend \$7.5 billion building a 1,300-kilometre railway connecting to both the eastern and southern borders. Chad would repay the loan with oil exports.

China became an important investor in Uganda during 2011, when one of its companies formed a joint venture with Total to purchase 66% of the oil exploration licences of the Irish oil company Tullow, which had found major oil deposits in the Lake Albert area during 2009 and 2010. The companies also pledged to build a new \$10 billion refinery in Uganda.

China's active in other East African countries. It has \$10.2 billion of FDI in Ethiopia, largely in non-resource sectors. The Export-Import Bank is also lending \$44.2 billion to build a new railway. China has given significant foreign aid to Kenya and has 44 construction companies active there. In 2013, Chinese construction companies began building a new \$13.8 billion railway line. The railway will be Kenya's largest ever infrastructure project, and China will help to finance much of it. Kenya's government gave CNOOC six out of 11 exploration blocks without any competitive bidding, but CNOOC relinquished them after failing to find any oil. Since then, there have been major oil discoveries in Kenya by Western oil companies. Kenya has a large trade deficit with China because of its lack of natural resource exports, but the oil discoveries could change the trade balance in a few years.

China established a close relationship with Tanzania shortly after independence because the country's first president, Julius Nyerere, was a socialist who visited Beijing 13 times. China helped to construct a railway to Zambia during the late 1960s in order to lessen the country's dependence on railway links through white-ruled Rhodesia. Tanzania became a market economy during the 1980s and began to pursue more commercial relations with China. More than 250 Chinese companies are now active there. China's financing a \$684 million gas-fired power plant in the south of the country and a \$1 billion natural gas pipeline. Another Chinese company has signed a \$3 billion deal to mine coal and iron ore. Because Tanzania hasn't yet developed these projects to create more exports, it runs a large trade deficit with China.

The country where China's new role has been most controversial is Zambia. China has invested \$2 billion in the country, and President Hu Jintao went there in 2009 to see China's new industrial park and strengthen the relationship. In 2011, the Zambian presidential election was won by a populist candidate, Michael Sata, who'd been very critical of China's labour relations and other business practices. In the weeks after the election, China reached out to Sata in order to address his concerns. The strategy worked, and he soon

approved another large Chinese investment for developing the Chambisi mining cluster as a metal processing and export zone. China is also now building a \$2 billion 750 megawatt hydro-electric plant which could help to resolve the country's chronic power shortages. The Chinese relationship with Zambia will be an important litmus test for how it manages to cope with political adversity.

Mozambique's attracted Chinese interest because of large discoveries of coal, iron ore and natural gas. Chinese firms have promised to invest \$6 billion in the coal sector. The Mozambique Government hosted an investment seminar in Shanghai during 2010. After the seminar, Chinese firms announced plans to invest \$13 billion in sectors such as mining, infrastructure, agriculture and tourism. The Chinese have also invested over \$200 million in cement plants. They've been negotiating with the government to modernise and expand the port at Beira to help accommodate increased exports of coal and iron ore. China's been a major buyer of Mozambique timber during the past decade and now hopes to buy land for cereal production as well.

China's third largest steelmaker, WISCO, has spent \$140 million to buy iron ore mining rights in Madagascar. The project is expected to have a capacity of 150,000 tonnes but will require a \$3.4 billion investment to construct a port. There is some local opposition to the project because of concerns about environmental damage to a national park in the area.

President Robert Mugabe of Zimbabwe has tried to cultivate a close relationship with China to compensate for Western sanctions against his country. As Western countries try to restrict investment in Zimbabwe, the Chinese have been able to operate with relatively little competition. Sinosteel paid \$200 million for Zimasco, a private ferrochrome producer formerly owned by Union Carbide. Sinosteel's chromium processing venture became partly owned by the China African Development Fund. The Jingniu Group spent \$13 million developing a plate glass factory. Afrochine, a subsidiary of Tshingsan Iron and Steel, plans to build a power station that will generate 1,000 megawatts to bridge the power deficit affecting the operations of its chrome smelting operation. Afrochine's completed phase 1 of the smelting project and plans to invest another \$100 million. The Chinese also have two companies active in the large Marange diamond fields. There is great controversy over these mines

because of allegations of human rights violations and abuses of artisanal miners by Zimbabwean troops. The Marange fields produced 8 million carats in 2012 and some analysts estimate this number could rise to 16 million in 2013. China's great challenge in Zimbabwe may come when Mugabe finally gives up power. If the opposition takes over, they could be critical of China for having supported Mugabe since 2002. As with Zambia, they will probably regard China as an important economic partner but they could attempt to curtail Chinese operations in the Marange diamond fields.

South Africa accounts for 20% of China's trade with Africa. At the end of 2009, China became South Africa's largest trading partner. South Africa's major exports to China are metals and minerals, while its imports are clothing, data processing equipment, printing machinery, bulldozers and motor vehicles. In 2008, the Industrial and Commercial Bank of China purchased a 20% shareholding in South Africa's largest bank, the Standard Bank. Standard Bank has operations in many English-speaking African countries, and the two banks hope to collaborate in making loans throughout the region. China's also made several investments in the metals sector and electronic assembly. In 2011, Chinese companies made three takeover bids. The Jinchuan Group made a \$1.4 billion takeover of Metorex, which has large copper deposits in the Democratic Republic of the Congo. Jinchuan and the China Africa Development Fund purchased 45% of Wesizwe Platinum with an equity injection of \$227 million and later arranged \$650 million of financing to develop the company's platinum mine. CITIC, China Development Bank and Long March Capital purchased Gold One International for \$469 million.

The Chinese Communist Party gave the African National Congress large sums of money in 2012 to help celebrate the party's 100th anniversary. The governments of the two countries have forged a close relationship, so South Africa is likely to remain a welcoming recipient of Chinese investment. In 2013, Chinese FDI in South Africa was worth \$8.7 billion.

China's also investing next door to South Africa in Namibia. Namibia East China Non-ferrous Metal Investment is going to build an industrial park around an iron ore mine in Kunene, 700 kilometres from the capital, Windhoek. The park will include a steel factory employing 10,000 people. The Chinese managers say that the project will have a 100-year life and yield 3 billion tonnes of iron ore.

China pioneered the creation of Sudan's oil industry during the 1990s. CNPC invested over \$10 billion in the sector and built the pipeline connecting the oilfields in the south to ports in the north. China had these opportunities because many Western countries imposed sanctions on Sudan and forced their companies to withdraw. There's been considerable ethnic violence in Sudan since the 1950s, and some Chinese workers have been killed.

South Sudan became independent in 2012, and China's worked hard to establish a good relationship with the new government. There have been disruptions of oil exports because of conflicts over pipeline pricing, and South Sudan hopes to build a new pipeline through Kenya. China will probably offer to help build the pipeline.

China's resource companies have been active all over Asia during recent years. Chinese FDI in Asia since 2005 has been \$134 billion. The energy sector accounts for \$51 billion of this total and mining for another \$50 billion. Chinese companies also had \$98.4 billion of construction projects in Asia between 2005 and 2009.

The Chinese have made large investments in Kazakhstan through a takeover bid for an oil company listed in Toronto and the construction of a pipeline from Atasu to China's Xinjiang autonomous region. The pipeline will allow Kazakhstan to deliver 20 million tonnes of Caspian Sea crude to western China. As Kazakhstan has traditionally sold 70% of its oil via pipelines passing through Russia, it's keen to develop new markets in the east. Sino-Kazakh trade was worth over \$20 billion in 2010 and could rise to \$40 billion by 2015. China's direct investment in Kazakhstan is worth about \$14.1 billion.

In 2009, the CDB lent Turkmenistan's natural gas company \$4 billion to develop one of the world's largest natural gas deposits. The loan was secured by a promise to sell the gas to China.

China pioneered the creation of a new regional group, the Shanghai Cooperation Organisation, to promote better relations with the countries of Central Asia. The other members are Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Russia. The countries have regular summits to discuss economic, cultural and security issues. All except for Russia and China are predominantly Muslim and have concerns about the risk of terrorism. The secretariat

of the organisation is in Beijing, while its Regional Counter-Terrorism Structure is in Tashkent. China is the largest trading partner of Russia and Kazakhstan and the second-largest trading partner of Uzbekistan and Kyrgyzstan. China's goal is to sharply increase natural gas imports from other Asian countries. Once the gas is flowing at full capacity, it hopes to import 60 bcm a year from Turkmenistan, 10 bcm from Uzbekistan, 15 bcm from Kazakhstan and 10–12 bcm from Myanmar. The total supply from new pipelines in those countries is likely to be 97 bcm.

In early 2009, the CDB announced plans to lend \$25 billion to two Russian companies, Rosneft and Transneft, in return for a promise to export 300,000 barrels per day of petroleum through a new pipeline to the Chinese border. Rosneft is a major Russian oil company with a high level of state ownership, and Transneft is the national pipeline company. The transaction was the largest ever to occur between Russia and China. The two countries also had long negotiations over exporting natural gas to China, but there were disagreements about pricing. They didn't reach a natural gas deal until October 2013, when Novatek agreed to sell 3 million tonnes per year of liquefied natural gas to CNPC over 15 years. CNPC is also a partner in a \$20 billion project to develop gas reserves on the Arctic's Yamal Peninsula. Gazprom has been working on a separate deal to supply gas to China. In March 2013, Gazprom and CNPC signed a memorandum of understanding under which Russia will supply 38 bcm of gas to China from its East Siberia gas fields starting in 2018. They haven't agreed on a price, though.

In September 2013, a unit of China's sovereign wealth fund purchased 12.5% of the Russian potash miner Uralkali, the world's second-largest producer of the potassium-rich ore. This \$2 billion deal was China's first major investment in the potash sector. Potash is used as a plant nutrient to improve agricultural yields, especially for vegetable crops and to a lesser extent for grains. Since much Chinese soil has a natural potassium deficiency, farmers use large amounts of fertiliser to extract maximum value from their land. As the price of potash shot up 350% over the last decade, many Chinese farmers switched to cheaper, though less effective, nitrogenous fertilisers. If China is to attain its ambitious goal of food self-sufficiency, farmers will have no option but to go back to potash. Currently, China consumes about 10 million tonnes of potash per year, of which 70% is imported, mainly from Russia. China is now Russia's largest trading partner.

Their trade was worth over \$70 billion in 2010, and their goal for 2015 is \$100 billion. Chinese FDI in Russia since 2005 is worth about \$17 billion.

Russia is nervous about the re-emergence of China as a great power because it conquered a great deal of Chinese territory during the mid-19th century but has a tiny population there today. China has never tried to reassert territorial claims against Russia and regards Russia as a potentially important source of raw materials that could reduce its dependence on Middle Eastern oil. Russia's defence budget is \$90.1 billion, or just over half of China's, but it has far more nuclear weapons than China.

The two countries have also been allies in challenging US policies in the Middle East. The trade relationship should therefore continue to flourish, and China can be expected to make new investments in the Russian resource sector. There's no need for China to reconquer the Asiatic zones of Russia in order to obtain the region's raw materials. Russia's happy to sell everything China needs.

Mongolia has been emerging as a treasure chest of raw materials, including coal, copper, gold, iron ore and uranium. The Mongolians fear potential Chinese domination, so they've heartily welcomed foreign investment from Australia, Canada, the UK and other Western countries. They vetoed a

Chinese effort to take over a Mongolian coal company listed on the Hong Kong Stock Exchange. In 2013, a Mongolian company announced plans to sell China \$20 billion worth of coal. The major market for Mongolia's mineral exports will be China, so the two countries will have to forge a close relationship, but Mongolia will continue to seek opportunities to reduce its dependence on China.

China's a potential pioneer investor in Afghanistan. In 2008, the Metallurgical Corporation of China signed an agreement to develop the large Aynak copper mine south of Kabul. CNPC signed an agreement for the development of oil blocks in the Amu Darya Basin. China's been moving slowly to develop these projects because of concern about the security situation. They could be natural targets for Taliban attacks.

China took advantage of Western sanctions to become a major investor in Myanmar during the past decade. Its investments there total \$15.8 billion and are concentrated in the oil, natural gas, hydropower and mining sectors. Bilateral trade was worth \$4.4 billion in 2010, and China runs a large trade surplus with Myanmar because of demand for its consumer goods. Sixteen Chinese oil companies were active in the country during 2008 and more have entered since that time. They obtained some valuable drilling rights in competition with India after China vetoed new UN sanctions



Operators test devices of the Myanmar-China natural gas pipeline in Laibin city, south China's Guangxi Zhuang Autonomous Region, 3 October 2013. The Myanmar-China natural gas pipeline was completed on 20 October 2013, further diversifying China's sources of fuel from abroad and ensuring its energy security. © Imaginechina/Corbis

against Myanmar. CNPC has also constructed a dual gas and oil pipeline from Myanmar's western coast to China's Yunnan province. There's also discussion about connecting new rail links between Kunming and Yangon as well as ports in Thailand. China was keen to build a pipeline in Myanmar because it will help to reduce China's heavy dependence on oil shipped through the Malacca Strait.

Myanmar's re-emergence as a democracy is posing a challenge to China. Western countries have lifted most of their sanctions and their companies are now flocking to Myanmar seeking business opportunities. China's no longer the largest investor by default. In 2011, the Myanmar Government cancelled a major Chinese hydro-electric project because of local protests. China angrily denounced the decision because the project had been given approval by the previous military government. One of the reasons that Myanmar reopened to the West four years ago was fear of Chinese domination. The two countries have a common frontier and great opportunities for mutual economic cooperation, but China will now have to compete with Western companies in pursuing economic opportunities there.

China has a rapidly developing relationship with Laos, one of five countries still ruled by a Communist Party. Chinese firms have invested in 397 projects, mostly in the areas of hydropower, mining, rubber plantations, banking, cement and hotels. The investment now exceeds \$2.7 billion. Laos has a trade surplus with China because of exports of wood, rubber and copper and has been keen to develop more trade ties with China because of its traditional heavy dependence on Thailand. Thailand had a severe economic downturn in 1997-98, which sharply curtailed its foreign trade and drove Laos into recession.

China's developed a strong relationship with Indonesia during the past decade because of its new free trade pact with ASEAN and its need for raw materials. China is now Indonesia's second largest trading partner and bilateral trade in 2012 was \$66.2 billion, four times that of 2005. China's premier says it should rise to \$85 billion by 2015. Indonesia has had a volatile relationship with China since its independence. President Sukarno recognised China in 1950 and sought to promote those ties as part of a third world alliance against the West. There was a severe disruption in the relationship during the mid-1960s, when General Suharto suppressed an alleged communist coup and killed hundreds

of thousands of Chinese. He suspended relations with China in 1967. Even after relations with China were re-established in 1990, there continued to be a great deal of suspicion. The East Asian financial crisis set the stage for Suharto's downfall in 1998 and a succession of three new presidents. The first democratically elected president, Abdurrahman Wahid, made China the destination of his first state visit. He was anxious to improve relations because of both economic reasons and resentment against the way Western countries had promoted a referendum in East Timor, which led to its secession from Indonesia. He also wanted to thank China for economic aid offered during the East Asian financial crisis.

The relationship has always been complex because Indonesia has a powerful Chinese minority of 6 million, which controls nearly three-quarters of the country's wealth. The Chinese are unable to play a role in politics but dominate the private sector. Wahid saw his visit to Beijing as a way to promote better relations with his Chinese business community, which plays an active role promoting investment from China. President Susilo Bambang Yudhoyono continued to promote better relations and signed an agreement with President Hu Jintao to establish a 'strategic partnership'. After the introduction of democracy, Indonesia also abolished many of its traditional restrictions on Chinese language and culture. China's invested \$25.9 billion in Indonesia since 2005.

China restored relations with Vietnam during 1991 after fighting a brief war with the country in 1979. Vietnam has large bauxite deposits, and in 2009 Chalco signed a joint venture agreement with Alcoa to develop them. There was local opposition to the project, but the government let it go ahead because it was potentially worth \$15 billion.

China's also won many of the contracts to build coal-burning power stations in Vietnam because it offered both low prices and financing from Chinese banks. It's become the largest source of imports in Vietnam's economy because of its role supplying both consumer products and components for reassembly as exports. In the first half of 2011, Vietnam had a trade deficit of \$5.4 billion with China. China accounted for 19% of Vietnam's foreign trade in 2010, compared to 13% for the US and 12% for Japan. There are now 2,000 Chinese companies active in Vietnam, and Chinese FDI is worth about \$11.2 billion. The Chinese also accounted for 25% of the foreign tourists who visited the country in 2011. Vietnam has tensions with China over territorial claims in the South China

Sea, but it doesn't let that issue disrupt its robust economic relationship with its northern neighbour.

There's been a dramatic increase in trade between China and the countries of the Middle East and North Africa, which has grown from \$20.8 billion in 2000 to \$262 billion in 2012. China runs a trade deficit with the region because of its oil imports, but its exports have grown from \$6.47 billion to \$121 billion. The exports are mostly light manufactured goods, including home and office appliances, communications and acoustic equipment, furniture, machinery, textiles and footwear. China's two largest construction companies are also active in the region, building dams, highways, mines, airports, housing, water distribution networks, stadiums and power projects. Between 2005 and 2013, Chinese companies had \$70 billion of construction projects in the region. Since 2005, China has invested \$32.5 billion in the Middle East and North Africa. Energy accounts for \$27.1 billion of this investment and mining for \$2.1 billion.

China's major ambition in the region is to achieve reliable oil supplies. In 2012 and the first eight months of 2013, the region accounted for 54% of China's oil imports. Saudi Arabia is China's single largest source of oil, both in the region and globally. This dependence is likely to increase. Erica Downs of the Brookings Institution predicts that China's oil imports from the region could grow from 2.9 million barrels per day in 2011 to 6.7 million by 2035. Chinese FDI in Saudi Arabia is worth about \$13.6 billion.

China's announced a variety of deals to invest in Iran's energy sector and plans to build several refineries to alleviate the country's gasoline shortage. The deals have a potential value of \$120 billion. Chinese companies have moved slowly to develop the projects because of Western sanctions against Iran. China is now Iran's largest trading partner, and bilateral trade in 2011 was about \$40 billion. Iran supplied 11% of China's oil imports that year. China's FDI in Iran is worth about \$18.6 billion. It's also provided Iran with military and strategic assistance, including cruise missiles and ballistic missiles. The Stockholm International Peace Research Institute estimates that those supplies were worth \$3.6 billion.

China has engaged in exploration activity in Oman and Yemen, and CNPC bought an oil company in the United Arab Emirates that has the potential to produce 10–15 million tonnes of output. A subsidiary of CNPC also served as the

engineering and construction contractor for the Abu Dhabi Oil Pipeline, which will connect the Habshan oilfield to Fujairah port, the only port in the emirates beyond the Strait of Hormuz. Sinopec has announced plans to form a venture with Aramco to build a 400,000 barrel per day refinery at the Red Sea port of Yanbu. This venture came after Sinopec formed a joint venture with Aramco to build a refinery in China's Fujian province.

China made a variety of investments in Iraq after the US occupation of the country. Two companies signed a contract worth \$3 billion for oil exploration rights. PetroChina formed a joint venture with BP to develop an Iraqi oilfield with potential reserves of 17 billion barrels, and is now negotiating with Exxon to develop the West Qurna oilfield. That project would make China the largest investor in the Iraqi oil industry. The project is attractive because the West Qurna field has the potential to produce 5 million barrels of oil per day.

China began investing in Syria after a visit by President Bashar al-Assad in 2004. He was the first Syrian leader ever to visit China. Because of Western sanctions, Assad promoted a 'Look east' policy, hoping to promote Syria as a transport hub in the region. In 2007, China bought a Canadian company with production and exploration opportunities in Syria. It then bought the Syrian assets of Petro-Canada in a joint venture with the Indians for \$578 million. It also formed a joint venture with a local company to develop the old Kebibe oil field in northeast Syria. Bilateral trade between China and Syria grew from only \$17 million in 2000 to \$2.7 billion in 2010. The Syrian civil war will jeopardise the value of China's investments in that country and has wiped out most foreign trade. China's broken with its tradition of non-interference in the political affairs of other countries by offering to host a peace conference on Syria, but the US and Europe are also trying to do the same in 2014. China will probably try to re-establish relations with whatever regime follows Assad, but it will be difficult if the new government is closely allied to Islamist extremists who are suspicious of all foreigners.

What's remarkable about China's role in the Middle East is its ability to have good relations with both Iran and Saudi Arabia. The two countries are bitter rivals, and Saudi Arabia's deeply suspicious of American proposals to relax sanctions against Iran in return for slowing that country's nuclear development program. Both Iran and Saudi Arabia want a good relationship with China because of the immense size

of the Chinese economy and the country's growing role as an oil importer. If North America becomes an oil exporter, both countries will be forced to rely more on markets in Asia. China doesn't play an active role in the politics of the Middle East, but it could ultimately be forced to play a larger role because of its need for oil from the region. Its primary mission might be to promote peaceful relations between Iran and Saudi Arabia.

China's taken a strong interest in the resource potential of the Arctic region. It's obtained observer status at meetings of the Arctic Council, which includes Canada, Russia, the US and Denmark. It's providing financial support for London Mining, which plans to open a large iron ore mine in Greenland. The company will employ 3,000 Chinese workers to construct the mine. China has signed a free trade and economic cooperation agreement with Iceland. As a result of global warming, there's now a great deal of excitement about the potential for developing natural resources in Greenland and other Arctic regions. China intends to be a player in the region.

China has become the world's largest gold producer, with output of over 400 tonnes a year. China's gold mining industry is incredibly fragmented. The 10 largest miners produce only 50 tonnes per year. The government estimates that the rest comes from 10,000 small mines and 50,000 artisanal mines, which create numerous environmental risks. Several foreign firms are also now actively exploring for gold in China. One has listed on the Sydney stock exchange. In 2002, a joint report by the US Geological Survey and the Tianjin Geological Academy estimated that China had more than 20 million ounces of proven gold reserves in deposits in sedimentary rock. As this accounts for only 4% of global reserves, the World Gold Council has published a report suggesting that China could exhaust its gold reserves by 2016. Because China has recently displaced India as the world's largest gold consumer (its demand in 2013 was 1,000 tonnes), it will have to become a progressively larger gold importer unless its miners can find new gold deposits.

China's economic take-off is changing the country's food consumption patterns and trade in agricultural commodities. As a result of reforms launched by Deng Xiaoping in the late 1970s, China has seen the fastest growth in agricultural output of any major country over the past three decades. In the Maoist era, agronomists feared that China would need to import massive amounts of food because of low agricultural

productivity. Today, China produces over 20% of the world's cereal grains, 25% of the world's meat and 50% of the world's vegetables. Based on a common definition of arable land, the US has more than twice the cropland of China, yet China's output is two and a half times as large as that of the US. China feeds not only its own population of 1.3 billion—it's also the world's largest exporter of many foods, including apple juice, farm-raised fish, garlic and vitamin C.

The government's seeking new ways to enhance agricultural productivity. Crop yields, for example, are still below potential due to poor planting techniques and postharvest waste. Since joining the WTO, China has increased its R&D spending on agriculture more rapidly than any other country. One of its major problems is its inability to convert livestock into meat. In 2012, China bred 15% more cattle than the US—104 million head—but produced less than half as much beef. China produced more than five times as much pork as the US but required seven times as many hogs.

As a result of its increasing livestock production, China's using more land to produce grain crops for animal feed. In the 1990s, it began to devote more land to horticulture cash crops. That trend has slowed during the past decade, and grain crops still account for 68% of sown land. Within the grain sector, corn has overtaken rice as China's most widely planted crop—reflecting the booming demand for cornfeed, which in turn reflects China's growing appetite for meat. In 1980, China consumed 68% less meat per capita than the world average. In 2012, it consumed 19% more.

China has increasing supply and quality constraints on its food output. The government wants to maintain 120 million hectares under cultivation but it's losing 2.5 million hectares each year to urbanisation. The remaining arable land is also becoming less useful because of intensive fertiliser use, which reduces the soil's fertility. There are water constraints as well. Agriculture irrigation accounts for 65% of China's water withdrawal, compared to 40% in the US. The pollution of China's water, soil and air also affects food quality. According to a US Department of Agriculture study in 2005, only 6% of China's agricultural products were considered pollution free. A study released in 2011 found that 10% of its rice was contaminated with heavy metals. The farm sector is itself a major source of pollution. For example, China keeps five times the number of breeding cows (50 million) as the US on much less farmland, and those livestock farms produce 4 billion tons of manure a year. Manure could be used for

fertiliser for corn, but in China it usually ends up as waste because corn is planted in different regions.

As a result of China's food needs, its agribusiness companies are becoming active foreign investors. They plan to invest in soybean and rapeseed production in Brazil, Russia and Canada. They've purchased agricultural land in Argentina, bought 5% of Ukraine's arable land, made three large investments in Australia (\$870 million for two sugar companies and \$390 million for a consumer food company), and spent \$380 billion to buy two dairy companies in New Zealand. In June 2013, Shuanghui International announced China's largest ever foreign food investment, bidding \$7.1 billion to acquire Smithfield Foods, the largest US pork producer. The Chinese want Smithfield for both its intellectual property and its ability to export pork to China. There are some complaints that China wouldn't allow such a large foreign investment in its own food sector, but the US Government approved the deal in September. As in the base metal and oil sectors, China is likely to become a progressively larger investor in the agricultural sector in both advanced and developing countries.

China is an importer of Australian agricultural commodities. In 2012–13, it bought 75% of Australia's exports of wool and skins, 60% of its exports of cotton, 26% of its exports of coarse grains, 8% of its exports of wheat and 7% of its exports of dairy products. Those exports were worth A\$2.864 billion, compared to Australia's total agricultural exports of A\$36.2 billion.

Coming policy changes

China recently completed the third plenary of the 18th Communist Party Central Committee. Observers were initially disappointed because the plenary produced a communique with only 5,000 characters that offered few details about where the country was going. Three days later, it produced a communique with 21,000 characters, which reassured everyone that the plenary may have been the most important since 1978, when Deng Xiaoping launched his great reform program. The communique, 'The Decision on Major Issues Concerning Comprehensively Deepening Reforms', provided far more detail on how policy should evolve in the future.

The most important line in the first communique was the statement that market forces must be 'decisive' as

opposed to playing a 'basic role', as they were described in the previous 20 years of communiques. This change may seem minor, but various official explanations make it clear that it's momentous. Many of the major problems in the economy, such as wasteful investment spending, result from the ability of government to manipulate key prices (capital, energy and land) to help politically connected state enterprises while restricting market access by private firms. China needs reforms to help its private sector because it scores very poorly on a World Bank survey of global business regulation (*Doing Business 2014*). The survey ranks China 96th, compared to 92nd for Russia, 116th for Brazil and 134th for India. China's been able to perform well despite such low rankings because of its advantages of cheap labour and capital, but as those advantages fade it will have to focus more on the microeconomic policies that determine the success of the private sector. Despite the success of China's economy, government officials still tend to think in statist terms because of their history. The plenary communiques never used the Chinese characters for the 'private sector'. They instead referred to the 'non-public sector'. The second communique pledges to 'unwaveringly encourage support, and guide the development of the non-public economy' and to ensure that 'property rights in the non-public economy may equally (with the state sector) not be violated'. These promises are exactly what China needs to move on to its next stage of economic development.

According to the new blueprint, there'll be reforms in a wide variety of areas, including in the regulation of markets and in streamlining government, liberalising the financial system, reducing the role of the SOEs, promoting urbanisation, strengthening rural property rights and modernising the social security system.

The government wants to bolster the role of the private sector by establishing fair, open and transparent market rules. It proposes to give foreign companies the same rights as local companies unless they're on a special negative list of restricted sectors. Private companies, especially those in the service sector, should benefit most from deregulation and easier market access.

The document makes it clear that 'any price that can be affected by the market must be left to the market', and price setting by the government will be confined to public utilities, public services and sectors that are naturally monopolised. Beijing will also push ahead with price

reforms for water, oil, natural gas, electricity, transportation and telecommunications.

The new plan emphasises the importance of reducing government intervention in the economy, pledging to confine its role to maintaining macroeconomic stability and providing public goods and services. The government will no longer have to give approval for investment projects unless they pose risks to national security, the environment and strategic resource allocation. The plan also calls for changing the way government officials are appraised. Instead of merely focusing on output growth, the plan wants to judge officials on the basis of other criteria, such as resource consumption, environmental costs, technological innovation, the growth of local government debt, and people's health.

The plan calls for more transparency in public finances, establishing a better debt management system for central and local governments and improving the transfer payment system. One critical issue is the division of revenue between the central and local governments. Local governments took on a great deal of debt to finance Beijing's infrastructure spending program during the global financial crisis, but the current tax system doesn't provide them with enough revenue to service that debt. They'll need either larger transfer payments from Beijing or new sources of revenue, such as property taxes and consumption taxes. In the past, local governments financed their spending by borrowing from banks. They'll now have the right to sell bonds in order to finance infrastructure projects.

China will need new reforms to strengthen its financial system and improve resource allocation. The blueprint proposes allowing private investors to establish more small and medium-sized banks. It wants to enhance the role of the bond and equity markets. It will allow the banks to accelerate liberalisation of the yields they pay on bank deposits. This change is very important because the yields on bank deposits have produced a negative real return during the past 10 years. As the Chinese people own trillions of renminbi of bank deposits, higher interest rates would give a significant boost to personal income and consumption. Some analysts estimate that it could raise the income share of GDP by 4–5%.

The low interest rates for China's regulated bank deposits have encouraged the growth of what's called a 'shadow' banking system. This alternative system includes lending to firms by friends and family as well as lending by trust banks,

small loan companies, bonding companies and financial leasing companies. One of the most rapidly growing sectors is wealth management products, which offer investors a yield 200–300 basis points higher than conventional bank deposits. The banks sell these products to their customers, but the great majorities are managed by trust banks. A recent estimate suggests that the total size of the shadow banking system is 22.8 trillion rmb, or a sum equal to 44.8% of GDP. The government regulates the major players in the alternative financial system, so it's not totally out of control, but its rapid growth reflects the financial repression of yields available from conventional bank liabilities and the need for finance on the part of private firms that lack access to loans from the large state-owned banks.

The plan addresses the important issue of modernising the SOEs. The communique stresses that 'both public and non-public ownership are key components of China's socialist market economy.' It then outlines a variety of reforms to enhance the role of the SOEs. It wants them to focus investment on sectors promoting public policy goals, such as national security, science and technology, controlling natural resources, and environmental protection. SOEs can invite private investors to play a role in their investment projects. The SOEs will be asked to enhance the dividends they pay to the government. In 2020, the payout ratio will rise to 30% from current levels of 5–20% (20% for tobacco companies, 15% for resource companies, 10% for ordinary companies, and 5% for military technology companies). These dividends will be used to enhance the financing of social security.

China's new premier, Li Keqiang, has spoken often about the role of urbanisation in promoting Chinese economic growth. China's population is now more than half urban, compared to only 20% in 1970. One of the important issues discussed at the plenary was the Hukou system, which regulates rural migration to urban areas. Under the current rules, there are 885 million people with rural Hukou registrations—1.9 times the number with urban Hukous. There's pressure on rural people to migrate to urban areas because China has a shortage of arable land. According to the World Bank, only 112 million hectares of land is arable, or only 0.08 hectares per person compared to 0.51 in the US and 2.14 in Australia. There are 260 million people with rural Hukous who have moved to the cities, where they have second-class citizenship rights. They're denied access to local social services unless they can obtain an urban Hukou. The plan proposes giving

full Hukou rights to migrants moving to small cities and gradually liberalising the rules for medium-sized cities. The government doesn't want to give Hukous to rural people living in the mega-cities, such as Beijing and Shanghai, but it will attempt to give them better access to public services.

The plenary also discussed enhancing the property rights of farmers and rural people. The government wants to encourage farmers to transform their collectively owned property into a shareholding system. They can sell their shares or use them as collateral to obtain a loan. The shares could also be inherited. Such a reform will be very popular because local governments often take land from farmers and sell it to property developers in return for bribes. The farmers don't receive adequate compensation and lose their livelihoods.

As China has a rapidly ageing population, the plenary had to address the issue of social security reform. Beijing is pledging to establish a stronger social welfare system by creating a national pool of retirement savings rather than relying on the current provincial system. It proposes to diversify the investment vehicles for retirement savings and will give companies more freedom to determine retirement ages. Reform of the retirement savings system is a critical issue because the combined employer and employee contributions are around 40% of an urban worker's average wage, which is a high proportion by international standards. The retirement tax also raises significantly more revenue (about 5% of GDP) than the personal income tax (about 1% of GDP). Eighty-five per cent of workers make contributions to the social security system, but only 3% pay income tax. The IMF has suggested that China could help to rebalance its economy more in favour of consumption by reducing the high level of social security taxes.

The plenary also addressed the parallel issue of medical care. It proposes to improve the urban-rural network for basic medical services and encourage more private investment in the medical sector. It wants to give doctors a licence to work in more than one hospital and allow medical insurance to cover private hospitals.

One of the major goals of the new Chinese Government is to raise the consumption share of GDP from its current low level of 36% to closer to the East Asian average of 50–55%. The share has increased from a trough of 34.9% in 2010 to 36% in 2012, but it fell by 1% per year during the previous

decade from a level of 47% in 1999. There are various ways China could encourage more consumption. One would be to allow faster growth of wages as the labour supply diminishes. Another would be to raise the yield on bank deposits. Another would be to strengthen the social safety net and allow the household sector to reduce its high savings rate. China has made significant progress on this front. It's increased spending on education, health care and social security from 635.8 billion rmb in 2002 to 2.672 trillion rmb in 2010. Over that period:

- education spending rose fourfold to 1.245 trillion rmb
- health care spending rose over sevenfold to 474.5 billion rmb
- social security spending rose over threefold to 908 billion rmb.

Twenty years ago, China's SOEs provided a wide range of social services. As the sector went through a dramatic restructuring during the 1990s (with the loss of over 50 million jobs) and the private sector became much larger, workers were no longer able to obtain the same social services that had been enjoyed by previous generations. The government must now follow the example of Europe by directly providing adequate social services. If it does so, there'll be less pressure on households to maintain a high savings rate in order to prepare for medical emergencies or the education of their children. A declining savings rate will boost consumer spending.

China has been trying to promote a wider global role for the renminbi. The plenary therefore discussed further liberalisation of the country's exchange controls. It proposed allowing more flexibility of the exchange rate control mechanism and speeding up renminbi capital account convertibility by promoting the two-way opening of capital markets, easing restrictions on cross-border capital flows, and establishing a foreign debt management system. There's been a large increase in the role of the renminbi in China's trade since 2010. It's risen from 3% in 2010 to 12% in 2012. HSBC estimates that it could rise to 30% of total trade by 2015 and to 50% for the share with emerging market countries. The renminbi has surpassed the euro to become the second most used currency in global trade, according to a report by the Society for Worldwide Interbank Financial Telecommunications (Swift). In October 2013, the renminbi

accounted for 8.7% of global trade finance, up from 1.9% in January 2012. The US dollar share was 81%, down from 85% in January 2012, while the euro share was now only 6.6%.

The top five countries using the renminbi for trade settlement were China (59%), Hong Kong (21%), Singapore (12%), Germany (2%) and Australia (2%). A few countries, such as Malaysia and Nigeria, hold renminbi in their foreign exchange reserves, but the currency is not yet a major reserve asset because of the restrictions on its capital account convertibility. If China finally makes the currency fully convertible, it will play a much greater role in global financial markets. It will quickly become a more important reserve currency than the yen and the pound and could rival the euro in 15 years. China's central bank has been promoting the currency's global role by creating bilateral swap agreements with a large number of countries. Among the largest are a 400 billion rmb swap facility with Hong Kong, 360 billion rmb with Korea, 300 billion rmb with Singapore, 200 billion rmb with Australia, 180 billion rmb with Malaysia and 100 billion rmb with Indonesia. There's also a rapidly growing offshore market for renminbi securities in Hong Kong, while Singapore, Taiwan and London have announced plans to create a similar market. London regained its prominence as a global financial centre during the 1960s with the development of the eurodollar market. It therefore wants to be a player in the emerging market for renminbi financing.

At the end of 2013, the offshore renminbi deposit base was 1.22 trillion rmb. In Hong Kong alone, renminbi deposits reached 781 billion rmb, up 30% from the previous year. In 2012, the level of renminbi deposits was 109 billion rmb in London, 60 billion rmb in Singapore and 17.45 billion rmb in Taiwan. These numbers also rose sharply in 2013. HSBC is forecasting that there will be 520–570 billion of offshore renminbi financing during 2014, compared to 360 billion in 2013.

The plenary established two new committees to carry out public policy: the National Security Committee and the Leading Group on the Comprehensive Deepening of Reforms. President Xi Jinping will head both of the committees, suggesting that he's now more firmly in control of the government than his immediate predecessors were. The resolution creating the committees states that comprehensive deepening of reforms must be consistent with the goal of 'strengthening and improving party

leadership'. This statement makes it clear that the leadership won't allow economic reforms to jeopardise the supremacy of the Communist Party. The big surprise is that Xi rather than Premier Li will head the committee on economic reform. Li has a PhD in economics and has been viewed as the major leader in the area of economic reform. In 2012, he helped to write a major World Bank report on China's economy in the year 2030. Some pundits have coined the term 'Likonomics' to describe his economic views.

The supremacy of Xi reflects the dominance of Jiang Zemin in the political system. Two major factions, led by former presidents Hu Jintao and Jiang Zemin, wield considerable influence in the collective leadership of the Communist Party. Xi Jinping is the protégé of Jiang, and Jiang's group won an overwhelming victory in the Politburo Standing Committee, the supreme decision-making body, securing six of the seven seats. The only member of the Hu Jintao faction on the committee is Premier Li. This 6:1 ratio gives Xi tremendous power. After 20 years of collective decision-making, Xi now has the opportunity to be the strongest Chinese political leader since Deng Xiaoping. He'll need to wield great power in order to overcome the many interest groups opposed to economic reform and to restrain the military as he pursues a more aggressive foreign policy. His goal will be to promote a new Chinese dream without jeopardising the supremacy of the Communist Party.

The new standing committee has people who are experienced in economic administration. They've served as provincial party secretaries, governors or mayors of large market-oriented cities. President Xi is also surrounded by competent economic technocrats. The most well-known adviser is Liu He, who has a master's degree from Harvard's Kennedy School. His deputy is Fang Xinghai, a Stanford PhD in economics and former director of Shanghai's effort to become a global financial centre.

As the plenary was focused on the issue of structural reform, it didn't address the issue of managing China's economic performance in the short term. The economy has slowed from a growth rate of 10.4% in 2010 to about 7.7% in 2012 and 2013. The government introduced a massive fiscal and monetary stimulus program in 2008 to combat the risk of recession resulting from the global financial crisis. There was a downturn in foreign trade, which wiped out 20 million manufacturing jobs. The stimulus was highly successful.

Fixed asset investment grew by 30.5% in 2009. Real GDP growth remained at 9.6% in 2008 and 9.2% in 2009. It finally slowed to 7.7% in 2012 and 2013 because of weakness in foreign trade, slower growth of fixed asset investment and decelerating retail sales. The government is unconcerned about the recent slowdown in growth because there's been no large increase in joblessness or non-performing bank loans. Many officials also believe that the stimulus in 2008 and 2009 was excessive.

Premier Li's economic views have three pillars: no stimulus, deleveraging, and structural reforms. The People's Bank of China shares those views because of its concern about the large increase in borrowing that occurred after 2008. It wants to promote deleveraging. These attitudes suggest that China will now be aiming for a growth rate modestly above 7.0% during the next few years and won't pursue highly stimulative policies unless there's a new global shock on the scale of 2008–2009. The upturn now occurring in the US, Europe and Japan should bolster Chinese exports during 2014 and 2015, helping to sustain growth at 7.5% or higher.

China's global role

The rapid growth of China's output has given it a major role in the global economy. It's the major trading partner for 124 countries, and its capital spending in 2012 was \$3.9 trillion or 27% of the G-20 total. That's much larger than investment in Europe (\$3 trillion) or the US (\$2.5 trillion). China's now the largest consumer of base metals and thus plays a dominant role in setting commodity prices. It's becoming an increasingly large investor in the global resource sector and has announced major investments in Africa, Latin America, Australia, Kazakhstan and other developing countries. It's supporting those investments with large loans from the CDB for infrastructure projects. The CDB has just under \$1 trillion of assets. China's outward FDI has grown from \$2.5 billion in 2002 to \$84.2 billion in 2012. Chinese construction companies won \$156 billion of foreign contracts in 2012. Their global market share was only 13.8%, but the three biggest companies by total revenue were Chinese. Their best markets were in Angola, Nigeria, Venezuela and Ethiopia. China now has 83 million outbound tourists each year, compared to only 10 million in 2000. They spent \$102 billion on their foreign visits in 2012, putting them in first place above the Germans, who spent \$88 billion. Morgan Stanley estimates that this number could increase to \$194 billion by

2015. In 2011, Chinese tourists spent 46,700 yuan per capita in Australia, 44,700 yuan in the US and 23,600 yuan in France.

China has been following a path laid out by other Asian economies during the modern period. According to data from economic historian Angus Madison, Chinese per capita GDP in 2008 was \$6,725 in 1990 dollars, which was 21% of US per capita GDP. This is roughly the gap between the US and Japan in 1951, the US and Singapore in 1967, the US and Taiwan in 1975, and the US and Korea in 1977. Harnessing their advantages as latecomers to the process of industrialisation, Japan's average annual growth rate soared to 9.2% over the next 20 years, Singapore's to 8.6%, Taiwan's to 8.3% and Korea's to 7.6%. The difference between China and those other countries is its size: it has 1.3 billion people and could have a larger economy than the US within 10 years. During Japan's 'bubble' years in the late 1980s, there was speculation that it might someday have a larger nominal dollar GDP than the US, but when the bubble burst it instead had 20 years of output growth averaging less than 1.0%.

China's playing a growing role in the world's multilateral institutions. A Chinese economist was recently Research Director of the World Bank. A former Chinese banker is a deputy managing director of the IMF. A former Chinese investment banker and World Bank official is now CEO of the International Finance Corporation. A former Chinese ambassador is the UN Undersecretary-General for Economic and Social Affairs. The Chinese Vice Minister of Education was elected chairman of the 37th UNESCO General Conference. The Vice President of the Chinese Red Cross was elected Vice President of the International Federation of Red Cross and Red Crescent Societies. China's permanent representative to the WTO has been appointed Deputy Director General of the organisation. A former Chinese intern has been appointed Assistant Secretary-General of the UN. China's Vice Minister of Finance became Director General of the UN Industrial Development Organization. The general manager of a Chinese steel company was elected chairman of the International Organization for Standardization. China's progress in leading the international institutions has not been totally smooth, though. Despite the fact that it's the eighth-largest contributor to the UN, there are fewer than 500 Chinese working in the UN Secretariat, which is the fewest among the five permanent members of the Security Council and fewer than UN members such as Japan and Pakistan.

During the Maoist era, China was a communist country and deeply hostile to the international economic system. It didn't maintain membership in the General Agreement on Tariffs and Trade (GATT), the World Bank, the IMF and the UN after the 1949 revolution. It took over the Taiwan–Republic of China seat at the UN in 1971. It rejoined the IMF and World Bank in 1980. It joined the successor to GATT, the WTO, after 15 years of negotiation in 2001. After 35 years of economic reform and tremendous success at exporting, China has become more of a status quo power. It attends G-8 meetings as a guest and belongs to the G-20. It declined invitations to consider joining the G-8 because of its status as a developing country. It would also have been uncomfortable in an association that consists only of democratic countries.

China has developed FTAs with a wide variety of countries. Its first FTA was for goods trade with ASEAN in 2004. Its other agreements include those with Hong Kong (2004), Macao (2004), ASEAN (2005), Chile (2006), Pakistan (2007), New Zealand (2008), Singapore (2008), Peru (2009), Costa Rica (2010), Taiwan (2010), Iceland (2013) and Switzerland (2013). China's trade with those countries in 2010 was \$574 billion, or 19.3% of China's total global trade. China is also now negotiating FTAs with the Gulf Cooperation Council, Australia, Norway and the Southern African Customs Union. Finally, it's exploring the possibility of FTAs with India, South Korea and Japan. Some Chinese economists even harbour fantasies about their country joining the Trans-Pacific Partnership, but US officials think such a possibility is several years away. China recently held an economic summit with leaders of the European Union to discuss a possible FTA. They pledged to double bilateral trade to \$1 trillion by 2020, from \$546 billion in 2012. The British Prime Minister also endorsed the idea of a European FTA on a recent visit to Beijing.

China's trade development has faced many challenges from countries concerned about its export competitiveness. According to Chinese Ministry of Trade data, there were more anti-dumping investigations of China than any other country during every year from 1995 to 2011. It was also the most heavily targeted for anti-subsidy investigations during every year between 2006 and 2011. Trade remedy investigations against China totalled 758 from 2003 to 2012, potentially jeopardising exports worth \$68.4 billion. There's also widespread concern about intellectual property rights violations by both foreign and Chinese companies. Domestic intellectual property litigation by Chinese companies against

each other has surged, from 9,000 cases in 2003 to 42,902 in 2010. There's a consensus in Washington DC that China manipulates its exchange rate in order to promote exports. The US Senate therefore passed the 2011 Currency Exchange Rate Surveillance Reform Bill, threatening to impose punitive tariffs on imports resulting from an artificially depressed exchange rate. Under the Bush administration, the US established a formal dialogue on economic and other strategic issues with China that has continued under President Obama. The Obama administration prefers dialogue about the exchange rate issue over congressional resolutions threatening to impose higher tariffs.

China's accession to the WTO helped to encourage a major export boom. Its exports rose from \$299 billion in 2001 to \$2.3 trillion in 2011, while imports rose from \$271 billion to \$1.998 trillion. China has become the world's second-largest importer, after the US. It opened its markets after 2001 by lowering trade barriers. Its average bound tariff is now only 9.2%, compared to 34.4% in India, 30.7% in Brazil, 34.9% in Mexico and 11.0% in Australia. China's also lowered its agricultural tariffs, from 23.1% in 2001 to 15.6% in 2009. It's been a participant in the Doha trade negotiations, but it hasn't played a decisive leadership role and has focused on protecting its core interests. It's been difficult for China to play a leadership role because it joined the WTO only in 2001 and spent the first five years of its membership complying with the terms for its accession. Its diplomats also don't have a long history of participating in multilateral trade negotiations.

China played a disruptive role in the Doha negotiations during November 2013 by refusing to reach an agreement on trade in information technology products. The new agreement would have expanded the 1996 Information Technology Agreement—covering \$4 trillion in annual trade—to include 200 new products, ranging from flat-screen televisions to next-generation semiconductors. Despite its role as the world's largest importer of information and communication technology goods, China refused to sign the new agreement unless 59 products deemed 'sensitive' were exempt from tariff reduction. The US and European Union trade ambassadors were unwilling to accept that concession, so the talks collapsed. Economists had estimated that the new agreement could bolster trade in technology products by another trillion dollars.

China has been trying to nurture new information technology companies through a policy called 'indigenous innovation'. The Snowden revelations about electronic spying also increased the government's desire to reduce its dependence on American information technology suppliers such as Cisco and switch to local companies, such as Huawei and ZTE. These ambitions may have persuaded the government that it needs to pursue more restrictive trade policies in the information technology sector.

The US has alleged that China's engaging in cyberwarfare and has tried to exclude Huawei from the US telecommunications market because of fears that its equipment might be used to enhance China's spying efforts. It's also encouraged allies such as Korea, Australia and Canada to restrict Huawei's market access. The importance of China's cyber spying first captured public attention when the US computer security firm Mandiant released a report associating a People's Liberation Army unit in Shanghai with the systematic hacking of more than 140 US organisations. The Chinese Government rejected the report and claimed that its evidence was

'groundless'. In May 2013, former ambassador to China John Huntsman and former Director Of National Intelligence Dennis Blair released a report which claimed that China is responsible for 50–80% of global intellectual property theft. The report argued that US companies have lost \$300 billion of revenue as a result of Chinese cyber espionage and endorsed the contention of General Keith Alexander, Director of the National Security Agency, that this theft represents 'the greatest transfer of wealth in history'.

China's recently announced a wide range of penalties against foreign multinational companies for violating anti-trust rules or paying bribes to enhance the marketing of their products. It alleges that the UK pharmaceutical company Glaxo Smith Kline offered gifts to doctors in order to promote the company's products. Such practices are common in the Chinese pharmaceutical industry because doctors have low salaries, but the government singled out a major foreign company for punishment. It then alleged that foreign producers of infant milk formula had formed a cartel to raise prices. There was never a trial to test the allegations. The



Chinese employees dressed in dust-proof clothing work at the plant of Nantong Fujitsu Microelectronics Co., Ltd in Nantong, east China's Jiangsu province, 21 November 2013. The Chinese government is spending almost \$5 billion on a new fund to support the country's microchip industry, as China moves to bolster what it has long considered a strategically important segment of its economy. © Imaginechina/Corbis

foreign companies simply paid fines totalling 670 million rmb to resolve the issue.

The Chinese Government filed an anti-trust case against Qualcomm, the world's largest manufacturer of chips for smartphones, alleging it had become a monopoly. Qualcomm has over \$12 billion of sales in China, and the issue of its market share has come to a head because China's mobile telecommunications infrastructure is moving towards fourth-generation LTE technology, which will depend heavily on the company's smartphone chips.

The Chinese Government cancelled Burberry's trademark for its signature black and tan pattern after local competitors filed a challenge against it. In 2012, Apple had to pay \$60 million for rights to the iPad name in China after a series of lawsuits and countersuits with a Chinese company that registered the trademark before Apple.

The government's actions against Glaxo Smith Kline, Qualcomm and the infant formula companies took the corporate sector by surprise. Jeremie Waterman, executive director for China policy at the US Chamber of Commerce, said 'China is wielding its anti-trust law in a discriminatory manner against foreign companies.' Foreign companies fear that China's new government will now pursue them more aggressively than domestic companies. Several multinational CEOs met Chinese leaders during October to discuss their fears. There's no doubt that the government is now pursuing more aggressive anti-trust and anti-corruption policies. Foreign companies are highly vulnerable because they seldom have good political relationships, but domestic companies are not totally immune. In December, the National Development and Reform Commission announced that it would triple the number of staff devoted to anti-trust cases.

The attack on foreign companies has gone hand in hand with a new campaign against corruption and conspicuous consumption by government officials. Xi Jinping says he wants to crack down on both 'tigers' and 'flies'—corrupt powerful leaders and petty bureaucrats. The Chinese press is full of stories about corruption, including bribery, influence peddling and misuse of public funds. The Chinese Academy of Social Sciences estimates that 800 billion rmb (\$131 billion) was taken out of the country by officials and executives who later fled the country. The Bank of China has a secret report stating that 18,000 corrupt officials fled the country with \$120 billion in plundered assets between 1994 and 2008.

The government appointed Wang Qishan as its anti-corruption czar after the party congress in November. He's a highly competent official with a distinguished government career who has the advantage of having no children—a frequent source of corruption in China. Wang arrested eight vice-ministerial level officials during his early months on the job. In August 2013, he arrested Jiang Jiemen, chairman of the State Assets Supervision and Administration Commission, the first ministerial level cadre to be caught in the crusade against graft. Jiang's arrest was accompanied by the arrest of four senior officials of CNPC, where Jiang previously worked. Political analysts in Beijing note that Jiang was a protégé of former Politburo Standing Committee member Zhou Yongkang, a former CNPC general manager and a patron of disgraced former Politburo member Bo Xilai. There are reports that Zhou is now under house arrest. There's no precedent in China for arresting a former member of the Standing Committee, so his conviction for corruption would be a very dramatic event. The trial of Bo, the arrest of Jiang and the detention of Zhou testify to both the seriousness of corruption and the intensity of the rivalry among senior party cadres. In 2012, Transparency International ranked China 80th out of 176 countries on its list of the world's most corrupt countries (Brazil ranked 69th, India 94th and Russia 133rd).

The campaign against corruption has also had a devastating impact on sales of luxury products, which business executives give to government officials as presents. Sales of Swiss watches fell 25% during the first half of 2012, sales of Remy liquor fell sharply, and there was even a downturn in sales of mooncakes during the autumn festivals. Goldman Sachs estimates that the consumption losses resulting from the campaign against corruption reduced real GDP growth by 0.3% during 2013.

China has had campaigns against corruption before, and corruption is still pervasive at all levels of the government. The difference this time is that the Chinese people now say in surveys that they consider corruption to be the country's leading problem. Bloggers have carried pictures of middle-level bureaucrats wearing \$100,000 wristwatches, and the government has felt compelled to dismiss them immediately.

The best solution to the problem would be to require government officials to report all of their assets. Since most of them own several apartments at home and abroad, their

wealth would quickly be exposed and lead to pressure for them to resign. Government officials don't want to take such a risk, so they've opposed proposals for them to report their assets. The corruption campaign will therefore continue, with Wang targeting officials whose lifestyles betray their access to money from bribes or who have connections to political factions out of favour with the leadership.

China and the G-20

China joined the G-20 in 1999. The group was created by Canadian Finance Minister Paul Martin to discuss global economic issues in the aftermath of the East Asian financial crisis. It was meant to be a forum for finance ministers and central bank governors. During the global financial crisis in 2008, the Bush administration decided to change the forum into a summit for the G-20 heads of government. This tradition continued with subsequent summits in the UK, Canada, Korea, Mexico, France and Russia. In 2014, Australia will host the summit.

China has used the summits to propose that the international financial organisations and old industrial countries should do more to help the developing countries. It believes that the industrial countries shouldn't curtail development assistance because of their large fiscal deficits, while the multilateral development banks should do more to promote sustainable development by helping poor countries to cope with volatility in capital flows. The G-20 created a Financial Stability Board to promote better regulation and supervision of the global financial system. China's supporting those efforts as well.

China has also used the forums to promote discussion about reforming the international monetary system and reducing the dollar's dominant role as a reserve currency. Before the London summit, the Chinese central bank governor, Zhou Xiaochuan, wrote an article saying that the dollar's role in the global financial system should be reduced and the role of the IMF's special drawing rights should be enhanced. As China keeps nearly two-thirds of its massive foreign exchange reserves in dollars, the article was viewed as provocative. Mr Zhou tried to reassure the Americans that he wasn't hostile to them by calling Federal Reserve Chairman Ben Bernanke to discuss the article. The views expressed by Mr Zhou have been supported by other Chinese economists. The former Chinese research director at the World Bank, Justin Yifu Lin, recently wrote a book about the global economic system, *Against the consensus: reflections on the*

great recession. In this book, Lin argues that the international financial system is fundamentally unstable because of the dollar's dominant role. He thinks it will be difficult for the major countries to develop a stable multi-currency monetary system because their economic policies are driven by domestic considerations. He instead proposes creating a new global reserve currency called 'paper gold' (p gold).

Countries would be compelled to maintain stable exchange rates against p gold and to hold their reserves in p gold. JM Keynes had expressed support for a similar concept at Bretton Woods in 1944, but the idea was rejected. The Western countries instead adopted a dollar-based monetary system that continues today, despite the breakdown of the fixed exchange rate system in 1971. China isn't the first country to propose reducing the dollar's role. The French have long tried to reduce its role because they believe its reserve currency status gives the US exorbitant privileges. China's suggestions are potentially more important because it has large holdings of dollars and is trying to promote a greater global role for the renminbi. There's been little support at the G-20 meetings for changing the dollar's status, but everyone expects the renminbi to become an important global currency when China liberalises its capital account. China might promote a greater role for gold by significantly increasing the gold share of its foreign exchange reserves from just over 1% today, but there won't be any agreement among either the G-8 or the G-20 countries to create a new quasi-gold standard. Most economists now believe that flexible exchange rates are the best solution to global economic imbalances.

The G-20 was created to establish a forum where the industrial countries could discuss economic issues with the developing countries. The old G-8 forum couldn't play that role. The global financial crisis elevated the G-20 into one where heads of government meet, not just senior economic officials. The London summit was the height of the G-20 process, producing a global convergence towards more stimulative fiscal policy and increasing funding for the IMF. There's been less potential for consensus at subsequent summits because of divergences in national economic performance and disagreement about issues such as the Doha round.

The G-20 provides China with a useful forum for promoting its ideas about reforming the global economic system. It talks about becoming a rule-maker rather than a rule-taker.

As China has been a clear winner from the current system, it doesn't want to propose radical changes to the status quo. It has instead used the more moderate rhetoric of 'pushing the international order to change in the direction of becoming more just and reasonable'.

At the 2014 G-20 summit in Australia, there'll be a major change in global economic leadership compared to previous summits. Between 2010 and 2012, the developing countries led the global recovery while Europe languished in recession and the US and Japan had subdued growth rates. Since 2012, there's been a sharp slowdown in Brazil, India, Turkey, South Africa and Russia, while China's growth has eased to 7.6% from double-digit rates in 2010. The old industrial countries, by contrast, are improving. Europe has emerged from recession, Japan's growth rate shot up to 4% during the first half of 2013, and the US could achieve growth above 3.0% during 2014, compared to only 1.9% in 2013.

China will probably use the Brisbane summit to again call for policies to bolster growth in the developing countries. It will probably also raise new questions about the role of the Federal Reserve in setting global monetary policy and driving capital flows. Fears that the Fed would reduce its quantitative easing policies led to a major slump in many emerging market exchange rates and equity prices during the second and third quarters of 2013. China could cite these market tensions as one more reason why the world must become less dollar-centric and reduce the dominance of the Federal Reserve.

One issue that's been simmering for some time has been the voting powers of countries at the IMF. The current distribution of votes reflects the old world order. The US has the largest voting share at 16.73%, followed by Japan (6.23%), Germany (5.81%), France (4.29%), the UK (also 4.29%) and Italy (3.16%). China has the largest quota among the developing countries (3.81%), followed by Saudi Arabia (2.8%), Russia (2.39%), India (2.34%) and Brazil (1.72%). As China now has the world's second largest economy and \$3.7 trillion of foreign exchange reserves, it deserves to have a larger quota than Japan, while Brazil's should at least be as large as Italy's. The old industrial nations control 58% of the votes at the IMF, while the developing countries have 42%. The old industrial countries agreed to change the quotas in 2010, boosting China's ranking to third place with a share equal to 6.07% while the US dips to 16.47%. Under these revisions, the advanced countries would have a 55.3% share of the voting quota

while the developing country share would rise to 44.7%. The Australian share would also increase slightly to 1.33% from 1.31%. The Republicans in the US Congress recently voted down legislation to allow these quota changes, so China is likely to use the upcoming G-20 meeting to protest that the Americans are blocking long overdue IMF reforms. There's also an old tradition that a European should always lead the IMF while the Americans should lead the World Bank. That tradition is clearly out of date, and the jobs should be open to people from the developing countries.

The Federal Reserve's Ben Bernanke has said that one of the causes of the global financial crisis was China's high savings rate and large current account surpluses, which encouraged capital flows to the US, which then depressed interest rates and helped to nurture a property bubble.

In previous periods of economic history, industrial countries exported capital to developing countries because they had large investment needs. In 1913, Britain had foreign assets equal to 140% of its GDP because of its large investments in the US, Latin America and the British Empire. The emergence of large current account surpluses in China and other East Asian countries since the 1997-98 financial crisis has turned this historical pattern upside down. The US has been the world's largest capital importer since the 1980s, while Japan and later China became the dominant source of external savings.

What's remarkable about China is that it has current account surpluses with such a high ratio of investment to GDP. Other Asian countries, such as Thailand, Malaysia, Korea and Indonesia, had investment ratios close to 40% of GDP in 1997, but they all ran current account deficits. In 2007, China had a current account surplus exceeding 10% of GDP while its ratio of gross capital formation was equal to 42.9% of GDP, compared to 36.6% in the 1998-2002 period. The current account surplus was possible because China's gross domestic savings were equal to 52.8% of GDP, compared to 38.1% in that period. Between 1998-2002 and 2007-08, the household savings rate rose from 18.5% of GDP to 22.9%, the corporate savings rate rose from 15.9% of GDP to 21.3%, and the government savings rate rose to 8.7% from 3.7%. As a result of robust investment, the corporate sector had a deficit equal to 8.3% of GDP, while the household sector had a surplus equal to 14.2% and the government sector had a surplus equal to 4.0%. The obvious way for China to reduce its large savings surplus is to increase personal consumption

and government spending. It could also reduce corporate savings by having SOEs pay larger dividends or by squeezing profit margins to increase wages.

In 2007, Premier Wen Jiabao told a press conference that 'There are structural problems in China's economy which cause unsteady, unbalanced, uncoordinated, and unsustainable development.' The comments generated headlines all over the world. In 2010, Vice Premier Li Keqiang (now premier) said that China's past development has created an 'irrational economic structure' and that 'uncoordinated and unsustainable development is increasingly apparent.' He added that China's long-term dependence on investment and exports for growth 'will grow the instability of the economy'.

Premier Wen and President Hu Jintao were unable to pursue major reforms to rebalance the economy because its high growth rate encouraged complacency and there were powerful interest groups opposed to reform. The new leadership believes that it can no longer avoid the reforms needed to rebalance the economy. The slowdown now apparent in the economy also demonstrates that the old growth model is starting to break down. The plenary has outlined the broad outlines of how China should move forward. The challenge will now be to implement the details of those structural reforms.

China and the balance of power

There can be little doubt that the major long-term challenge for countries in the Asia-Pacific region will be to accommodate the rise of China as a great power. China was the world's largest economy before the British initiated the Industrial Revolution. Angus Madison estimates that it accounted for nearly a third of global GDP during the 18th century. China now accounts for about 12% of global GDP, compared to 2% in 1992; in 20 years, it could account for just under 20%. China's growth is slowing, but it will still be about three times as high as growth in the old industrial countries during the next several years. What remains unclear is whether China will be able to become a high-income country. In 1960, the World Bank classified 101 countries as middle income. In 2008, only 13 had become high-income countries. China won't be able to become a high-income country without far-reaching structural reforms, including the introduction of the rule of law.

In the first 15 years of economic reform, China downplayed having a larger global political role. In the early 1990s, Deng Xiaoping said that China should 'observe calmly; secure our position; cope with affairs calmly; hide our capabilities and bide our time; be good at maintaining a low profile; and never claim leadership.' The situation's now totally different. China has the world's second-largest defence budget. It's making territorial claims in the South China Sea against many countries while also provoking a dispute with Japan over a small island chain in the East China Sea. There's great fear that China could become both an economic and a political hegemon in the East Asia region.

The political challenge posed by China's rise is unique because the country is not yet democratic. *The Economist* Intelligence Unit's Democracy Index ranks China 141st on its list of 167 countries. Russia ranks 117th, India ranks 39th and Vietnam ranks 143rd. There's far more active debate on all policy issues today than was possible during the Maoist era, but the Communist Party remains firmly in control of the government (the party has 83 million members and another 100 million people on waiting lists to join). It tolerates debate and dissent if the participants don't challenge the supremacy of the party. The latest plenary took some important steps towards political reform. It voted to abolish the *laojiao* system, which allowed the authorities to detain people for four years in 're-education through labour' camps without a trial. The system was introduced in 1957 to detain ordinary criminals, not just political dissidents, but it's often been abused to suppress people criticising the government. Legal scholars greeted the news as a sign that China's improving human rights and strengthening the rule of law. The decision doesn't preclude the government from continuing to imprison people it believes are a threat, though.

Chinese leaders are sensitive to public opinion, despite their authoritarian leadership style. The new campaign against corruption is a response to public perceptions that graft is out of control. The obsession with economic growth is also driven by the need to win popular approval. Political leaders believe that the huge improvement in Chinese living standards during the past 20 years gives legitimacy to Communist Party rule. Public opinion surveys show that the Chinese people now have far more confidence in their economic future than Europeans and Americans. According to a recent survey by the Pew Center, only 33% of Americans say their children will be better off than them, while 82% of Chinese

say their children will be better off. China's political leaders will have to sustain this high level of confidence in order to restrain dissent.

China's economic boom has moved about 300–400 million people into the middle class. Those people accept Communist Party rule because of the large gains in their real incomes since the 1980s, but they're often critical of the government. When there was a high-speed train accident in July 2011, the Railway Ministry's first instinct was to bury the railcars involved so that no one would be able to criticise it, but photos and messages exchanged on the Weibo website made the cover-up impossible. Before the accident, the Railway Minister was given a suspended death sentence for taking 1 billion rmb in bribes during the construction of the railway. He owned more than 170 apartments. In 2010, there were more than 180,000 protests on a wide range of issues, including pollution, farmers losing their land to developers, and plans to locate chemical factories near residential areas. Such protests demonstrate that the Chinese people have become more restive and willing to take action, despite the supremacy of the Communist Party.

The press has become more forceful in carrying stories about corruption but China still ranks poorly in Reporters Without Borders' 2013 Press Freedom Index. It ranks 173rd out of 179 countries for press freedom, compared to 140th for India, 148th for Russia and 154th for Turkey. There's no way to predict when the rise of the middle class and its willingness to speak out will lead to a fundamental change in how China chooses its leaders. Because China's economic take-off has produced a great deal of income inequality and a Gini coefficient possibly as high as 0.62, the leaders naturally fear that democracy could open the door to populists who would jeopardise the economic reforms. China's therefore unlikely to follow the path set out by Korea and Taiwan in pursuing democracy for many more years, but the political system will continue to evolve as the middle class demands more accountability for the government's actions.

China says that it wants its return to great-power status to be a peaceful process. It's well aware of the disasters that confronted Germany and Japan when they sought to be great powers during the early 20th century.

China's re-emergence as a great power has so far been largely an economic phenomenon, but it's also permitted a large rise in Chinese defence spending. China has increased defence

spending at a double-digit rate during the past 10 years, and its spending is now the second largest in the world after the US. In 2012, it spent \$166.2 billion on defence, compared to \$22.2 billion in 2000. In the same year, the US spent \$682.5 billion on defence, the UK \$60.6 billion and Japan \$59.3 billion. Jane's predicts that People's Liberation Army spending will increase to \$238 billion by 2015, surpassing that of NATO's eight largest members after the US. The International Institute for Strategic Studies projects that China's defence spending may exceed that of the US by 2025. Except for sending naval vessels to combat piracy off the coast of Somalia, China hasn't deployed troops in other countries, but it's playing a major role in UN peacekeeping operations. It's increased its commitment to the UN tenfold during the past decade, building to its current level of around 2,000 troops in 11 operations, mostly in sub-Saharan Africa and the Middle East.

China also recently sent a spaceship to the moon. It was the first country to do so since the US and the Soviet Union in the 1970s. The mission allowed it to show off its technology and to do things that have been done in the past only by great powers. It's regarded the mission as one more confirmation of its re-emergence as a great power.

One of the great problems for Western countries trying to cope with China's military rise is the autonomy of the People's Liberation Army. It's an arm of the Communist Party, not the government. It often does things without consulting the Foreign Ministry, which has relatively little power. Xi Jinping has ultimate authority over the military, but he has to take account of their views in formulating policy. There's still more collective decision-making on military issues than on other affairs of state.

China also believes in the concept of soft power. It's been creating a global network of Confucius Institutes to promote the study of Chinese language and culture (the first was established in Korea during 2004). There are now 435 Confucius Institutes and 644 Confucius Classrooms in 117 countries. About 500 institutions, including 70 in the US, have applied for the establishment of a Confucius Institute or Classroom. China's also been increasing the number of its embassies and consulates all over the world. It now has 256 such missions, compared to 302 for the US, 247 for Russia, 237 for the UK, 193 for Brazil, 140 for India and 107 for Australia. It's also been active promoting regional summits for countries in Africa, Central Asia and Latin America.

China's attempts to project soft power effectively have been undermined by its conflicts with the Western media. It tried to block the website of the *New York Times* after the site carried a story about the multibillion dollar wealth of Wen Jiabao's family. It was extremely slow in renewing the visas of journalists working for Bloomberg and the *New York Times*, and it prevented a Bloomberg reporter from attending a press conference of UK Prime Minister David Cameron. US Vice President Biden protested those actions against journalists during his trip to Beijing during December. Bloomberg tried to protect its position by suppressing a story about the connections of a wealthy businessman to the political elite but it was already in trouble because of a report it carried during 2012 about the wealth of Xi Jinping's family. The *Times* and Bloomberg stories both won prominent journalism prizes, but they offended the Chinese leadership by revealing their great wealth.

It will be difficult for China to improve its political image in the Western world without reaching an accommodation with the Western media. The head of Bloomberg, Matt Winkler, even made comments comparing the challenge of managing media relations with China to similar problems in Nazi Germany during the 1930s. Such comparisons undermine China's soft power.

China's imprisonment of prominent human rights activists also greatly undermines its ability to project a positive image in the outside world. One of the activists won the Nobel Prize two years ago but wasn't able to attend the ceremony in Oslo to receive it. China then imposed sanctions on Norway to protest the award. Such behaviour and the restrictions on the foreign media reveal great insecurity among Chinese leaders.

Recent actions by China have created fears among its neighbours that its rise mightn't be as peaceful as the leadership claims. China's made claims over much of the South China Sea, provoking border disputes with Vietnam and the Philippines. The China National Offshore Oil Corporation is supporting the claims because it believes the region is potentially rich in hydrocarbon deposits. The Philippines has angered China by taking legal action to assert its sovereignty over the disputed islands. When a severe typhoon hit the Philippines during November 2013, China responded by offering to give the Philippines only \$100,000 in assistance. The sum was so tiny compared to the aid offered by the US, Japan, Australia and other countries that even the

Chinese press criticised the government for being too stingy. It wasn't behaviour consistent with a country claiming to be a great power.

China's also strongly reasserted its long-dormant claim over the Senkaku islands, which are administered by Japan. China calls them the Diaoyu islands. China says Japan conquered the islands in 1895 and that they should have been returned to China along with Taiwan after 1945. The US instead retained control of the islands as part of its administration of Okinawa, which was returned to Japan in 1972. When the two countries signed the Sino-Japanese Treaty of Peace and Friendship in 1978, they agreed to leave the issue of the islands to be resolved later. China's revived the issue recently because it overtook Japan to become the world's second-largest economy in 2010 and feels that it can now take a more assertive position on long-dormant territorial disputes. China began sending boats to the islands five years ago, and one rammed a Japanese coast guard vessel in 2010. The Japanese arrested the captain of the boat, and China protested by suspending shipments of rare earths to Japan. China was then outraged when the Japanese Government bought three of the islands from a private investor in order to prevent the Governor of Tokyo buying them and stationing people there. Prime Minister Noda thought he was reducing the risk of tensions by blocking the Tokyo governor, but the Chinese expressed outrage and there were widespread consumer boycotts of Japanese goods.

In November 2013, China announced the creation of an air defence identification zone over the East China Sea. The zone encompasses the Senkaku Islands as well as some reefs controlled by Korea. About 20 countries have such zones, including the US, Australia, Canada, Germany, India, Norway, Japan, Pakistan and the UK. The Chinese say that it's time they had one as well. Japan and Korea protested the creation of the zone, and the US sent two bombers to fly over it. The Americans thought it would be safer for them to test the zone than for the Japanese to do so. The US Government later told American airlines to respect the zone by informing the Chinese of their flight plans. The great risk posed by China's more aggressive actions is a military accident. One of its planes could collide with a Japanese plane, as happened with a US spy plane over Hainan in 2001. Such an event could provoke an escalation of tensions and create fears of a war.

One problem with China's re-emergence as a great power is its historical legacy. It was subject to widespread foreign intervention during the 19th century and fought two wars with Japan. This history has given China a sense of 'victimhood' that often drives its foreign policy today. Xi Jinping has said that China can't ignore its history, but the obsession with the past is setting the stage for conflicts, which undermines China's contention that its rise will be harmonious. China must focus on being a responsible stakeholder in the global system, not letting historical grievances produce unnecessary conflicts with important neighbouring countries, such as Japan.

The Senkaku conflict has posed a major problem for Japan's private sector. Japanese firms are large investors in China and increased their FDI by \$25 billion during 2011 and 2012. Their 50%-owned affiliates employed about 1.2 million Chinese workers in 2012. During the period from 1995 to 2007, China accounted for 28% of Japanese export growth. In 2011, China was Japan's largest trading partner and accounted for 20% of the country's total exports. Exports fell sharply during the second half of 2012 because of boycotts by Chinese consumers protesting the Japanese Government's purchase of the islands. Japan's economic relations with China gradually improved during 2013 as provincial governments sought new Japanese investment and consumer boycotts faded, but Shinzo Abe's decision to visit the Yasukuni shrine on his first anniversary as prime minister will only revive tensions. He was the first prime minister to visit the shrine since Koizumi in 2006. Both China and Korea protested the visit. The US was also critical because it's been trying to improve relations between Japan and Korea after several months of antagonism. Abe ignored the advice of senior advisers, such as Chief Cabinet Secretary Yoshihide Suga, in visiting the shrine but he felt his dominant position within the Liberal Democratic Party gave him the leeway to indulge his nationalist fantasies. His decision to ignore other party leaders, the business community and the US could weaken his political position after a year of strong approval in the opinion polls. It also creates the risk that Japan will become more isolated because of its unwillingness to accept the feelings of other Asian countries about its wartime actions.

Japan's concerned about its ability to defend the islands. Its defence budget was 63% larger than China's in 2000, but in 2012 it was barely one-third the size of China's. Abe is proposing to spend 24 trillion yen (\$230 billion) on defence

over the four years from April 2014. This would represent a 3% increase (the largest in 20 years) but still leave defence spending below 1.0% of GDP.

The Abe government's defence ambitions are constrained by Japan's massive public debt. Because Japan can't lay off people employed by the Defence Ministry, it's had to reduce procurements of new weapons. Procurement spending has declined by 20% since 2002. The inability of the military to buy new equipment is forcing it to prolong the life of existing equipment, so maintenance costs have increased sharply. At the end of the Cold War, maintenance spending was about 45% of procurement outlays. Now it's 150%. The new Japanese defence plan will attempt to correct these trends and 'develop full amphibious capability in order to land, recapture, and secure without delay in case of any invasion to any remote islands'. The plan calls for the purchase of 52 amphibious vehicles, 17 Osprey tilt rotor aircraft, 3 Global Hawk surveillance drones, 28 F-35 Lightning fighter jets, 4 new early warning aircraft, 5 submarines and 2 Aegis class destroyers. Japan's making it very clear that it will defend the Senkaku Islands despite the fact that they have little economic value. The issue has inflamed nationalist passions in Japan, not just in China. These passions suggest that the conflict over the islands could be a source of tensions for many years to come.

In 2012, the countries of Southeast Asia, Korea, Taiwan and Australia spent \$94.5 billion on defence, compared to \$43.6 billion in 2000. They don't want to become military rivals to China, but they'll have to consider new defence strategies if the US becomes a progressively weaker military player. Korea, for example, is building a new naval base for 20 warships, including submarines, arguing that it has to maintain open sea lanes in the East China Sea for its exports.

Unless there are major reforms in the American Medicare program or the American people are prepared to accept much higher taxes, health care has the potential to crowd out the US defence budget over the next 20 years. Rigidities in both major parties jeopardise defence spending: the Republicans refuse to accept any tax increases, while the Democrats are unwilling to restrain spending on the big entitlement programs, such as Medicare and Social Security. The health care and medical sector spent half a billion dollars on lobbying to prevent further government intervention in the sector. The only way the two parties can agree on

deficit reduction is to squeeze discretionary spending (spending on Medicare is classified as mandatory, whereas defence spending accounts for almost half of discretionary expenditures). The Republicans used to protect the defence budget from left-wing Democrats, but they're now accepting large cuts in defence spending because of their overwhelming ambition to reduce the fiscal deficit without raising taxes. The Congressional Budget Office is forecasting that the defence share of GDP could slide from 4.8% in 2011 to 2.6% by 2023, the lowest level since World War II.

The condition of the US armed forces wasn't good even before the proposed spending cuts. The US Navy is the smallest it's been since 1916, and it's set to shrink to about 250 ships, compared to 556 in 1986. The navy's also suffering from serious shortfalls in readiness—it's retiring ships faster than it's building them. In 2011, nearly one-quarter of inspected ships failed their annual reviews. The US Air Force is now smaller than at any time since its inception. The average age of the B-52 fleet is 50 years, and the F-16 fleet's been in service since 1979. The Obama administration has cancelled or delayed a number of modernisation programs for the air force, such as the F-22 air superiority fighter, the C-17 transport aircraft, a new combat search and rescue helicopter, a new jet trainer and numerous space programs. The administration's also closing every fighter production line except one—the F-35 Joint Strike Fighter. As a result of budget pressure, the air force is also slowing its planned purchases of the new plane. The US currently has no active bomber lines of production. Russia and China have 12 fighter and bomber lines open between them. The US Army's suffering from equipment shortages after prolonged warfare in Iraq and Afghanistan. The administration also plans to reduce the number of troops in the army and marines by 100,000.

China perceived the global financial crisis as an event that would magnify America's decline while increasing its own relative standing. After the crisis, the US had four years of 2.0% output growth while China's growth slowed from over 10% to 7.5%. The US economy could rebound to a growth rate exceeding 3.0% during 2014 and 2015. Its housing market is recovering after a collapse in real estate values during 2008 and 2009. The banking system has rebounded from large loan losses and can now offer better access to credit. And the US is in the midst of an oil and gas boom that could make North America energy self-sufficient in 10 years and provide

it with much lower natural gas prices than are possible in other industrial countries. The US still has a clear edge in developing new technology and commercialising it.

If America can rebound on a sustained basis, China may decide to pursue a G-2 relationship with the US rather than taking advantage of American decline. The China-US Exchange Foundation issued a report in 2013 suggesting that the two countries could become each other's largest trading partners by 2022. US exports to China could rise to \$530 billion (three times the current figure), while Chinese exports to the US could be worth \$805 billion. In such a scenario, the US could create 1.81 million new jobs from rising exports to China. The US and China began negotiations over a bilateral investment treaty at a summit between presidents Obama and Xi Jinping in California during June 2013. China rejected such ideas 10 years ago, but in view of its own rapidly growing foreign investment it now regards such treaties as potentially useful. Washington pundits have long speculated about a G-2 relationship becoming the anchor of a new global economic order, but the US has too many allies to give China such overwhelming dominance. There can be little doubt, though, that China will be its single most important relationship during the next quarter of a century.

China will also be Australia's greatest foreign policy challenge during the 21st century. The two countries have had formal relations for over 78 years. Australia made its first tentative steps towards an independent foreign policy by sending trade commissioners to the Dutch East Indies, China and Japan in 1935. Although primarily charged with pursuing economic interests, they also monitored political developments, especially the rise of Japanese militarism. As the threat of war loomed, Canberra established its first diplomatic legations in Washington, Ottawa, Tokyo and the wartime Chinese capital of Chungking in 1940 and 1941. The communist revolution ended diplomatic relations in 1949, and the Korean War and communist insurgency in Malaysia caused Australians to regard China as an enemy. Canberra didn't follow the British lead in restoring diplomatic relations with China because of opposition from Washington. However, Australia's trade commissioner in Hong Kong visited Beijing in 1956, and Australia relaxed its trade sanctions with China in 1957-58.

A Chinese trade delegation came to Australia in 1958, before which there had been a modest trade in wool. The value

of Australian exports to China, including the first exports of wheat, iron and steel, rose to £16 million in 1959–60, and Australian banks also began to send emissaries to Beijing. In 1961, China had a very severe famine and bought more than 7 million tonnes of Australian wheat with a value of £250 million during the next three years. Australia increasingly came to view China as a potentially important market because of Britain's decision to seek membership in the European Common Market. The leader of the Country Party, John McEwen, encouraged Australians to travel north in search of commercial opportunities.

Prime Minister Gough Whitlam re-established diplomatic relations in 1972. Every subsequent prime minister has visited China multiple times, as have countless trade and economic ministers. Both the Labor and the Liberal parties regard the China relationship as one of great strategic importance. China's now Australia's major trading partner and is likely to remain so for many years to come. It will soon account for a larger share of Australian foreign trade than the UK did 90 years ago. The two countries have been negotiating an FTA for many years and the new Abbott government hopes to complete one in the near future.

Australia's been a close military ally of the US since 1941 and welcomes America's new pivot to Asia, including the stationing of marines near Darwin. China can't protest the fact that Australia is a close US ally, but it may want to dilute Australian support for other countries with which it has potential conflicts, such as Japan, Taiwan, Vietnam and the Philippines. Australia's also provided a haven for Chinese dissidents and given a public platform to leaders of rebels in China's Xinjiang province. China dislikes Australia providing a platform for its critics but it knows that Australia's a democratic country where free speech is a core value.

Australia was unique among Western countries in having a prime minister, Kevin Rudd, who spoke Mandarin, but Rudd was often critical of China's unwillingness to accept political dissent. He welcomed Australia's growing economic relationship with China but was also a strong supporter of the alliance with the US. The Chinese regarded him as a highly sophisticated critic, not a close ally.

Canberra will be able to maintain a good economic relationship with Beijing because China needs Australian raw materials and because Australia's willing to accept Chinese investment in the resource sector, but there's no way the two

countries can avoid tensions over China's more aggressive foreign policy and suppression of political dissent. Australia is a Western country with a growing Asian population, which wants to be part of a free and open society, so it must pursue a balance between its growing economic relationship with China and its membership in the Western alliance.

The only circumstance that could undermine this balancing act would be if the US ceases to be a great military power and withdraws from the East Asian region. In such a scenario, Australia would be confronting a potentially dangerous hegemon, not just a great trading partner. This would open the door to a new chapter in Australian history, posing greater dangers than at any time since 1942. Australia would be an Anglo-Saxon middle power on the edge of Asia without any great-power allies to help protect it. As China is getting everything it wants from Australia through trade and investment, it wouldn't need to threaten Australia in order to obtain more, but it could frown on Australia if Canberra supported Japan, Taiwan, the Philippines or other countries where it had potential conflicts. Australia would be forced into a crouching mode—still independent, but unable to be highly assertive against the dominant power to its north. It might be able to join an alliance with other Asian countries seeking to resist Chinese hegemony, but they also have very close economic relations with China so it's questionable how assertive they'd want to be.

The only country with the potential to challenge Chinese hegemony in the long run is India, which will soon have a larger and much younger population than China. The problem with India is its relative backwardness compared to China. As a highly heterogeneous and democratic country, it can't pursue economic reforms as aggressively as China. It's only 30% urban, its labour markets have long been distorted by regulations that discourage job creation by small and medium-sized enterprises, it suffers from chronic power shortages, there's a great deal of corruption at all levels of government, and it won't be a major economic power until the 2030s or 2040s.

India might someday have a strong interest in forging a much closer relationship with Australia if urbanisation creates a Chinese-style demand for raw materials. In the interim, Australia should strive to develop closer relations with New Delhi in order to hedge its bets with both China and the US. India is a democracy and a member of the Commonwealth

and has inherited the rule of law from Britain. It's thus a more natural ally for Australia than many other Asian countries.

It's difficult for Australians today to imagine India as a great power, but it may be the only alternative to Chinese hegemony during the middle decades of the 21st century. Japan already recognises that possibility. It's sought to form a strategic partnership with India and has already begun holding joint naval exercises with Indian forces. Prime Minister Abe has said that India should belong to 'Asia's Democratic Security Diamond'. India has four times more trade with China than with Japan but it regards the relationship as part of a 'Look east' policy to promote trade with the whole East Asia region. Japan also has \$15 billion of FDI in India, where its companies employ 150,000 Indians.

How China evolves as a great power will depend on both its own economic performance and the performance of other countries, especially the US and Japan. If China remains the global growth leader by default, its power will expand more quickly. If the US can rebound and resolve its fiscal problems, it will remain an important deterrent to Chinese supremacy in East Asia. The Obama administration's so-called 'pivot towards Asia' confirms that the US wants to remain a great power in Asia, but the fact that the president had to cancel his visit to the 2013 APEC summit in Bali demonstrates how vulnerable such promises are to partisan conflict in Washington. The US won't be able to remain a great military power without a sustainable fiscal policy that restrains health care spending. Doctors and health insurance companies will determine whether America continues to be the world's leading military power, not strategists in the Pentagon, and the most important predictor of the global balance of power in 2030 will be America's health care inflation rate. There's been a sharp decline in health care inflation during the past four years, but there's no consensus that it will be sustainable. Australia must therefore prepare contingency plans for the risk that the US will become increasingly less able to guarantee its security.

If China becomes more open and democratic, there'll be less fear of its economic rise, but a democratic China will still be vulnerable to populism and nationalism. If politicians win elections by invoking nationalist themes, there's a risk that they could be more dangerous than authoritarian leaders who take a more prudent view of their country's interests. Xi Jinping is using nationalism as an issue to win popular support, but he's unlikely to provoke a deliberate military conflict.

China will therefore be very much an evolving story. It's likely to have several more years of relatively high growth if it can pursue structural reforms to bolster consumption and allocate resources more efficiently, but it won't be able to become a high per capita income country without achieving greater political freedom and the true rule of law. The country's reformers know where they have to go, but they don't know how they'll get there.

Note

1. All figures are in current US dollars unless stated otherwise.

Sources

Information for this report came from a wide variety of sources, including newspaper articles, brokerage reports, academic articles, and government reports. The following books were also used:

Sustaining China's Economic Growth after the Global Financial Crisis by Nicholas Lardy, Peterson Institute for International Economics, 2012.

Australia's China: Changing Perceptions from the 1930s to the 1990s by Lachlan Strahan, Cambridge University Press, 1996.

Acronyms and abbreviations

ASEAN	Association of Southeast Asian Nations
bcm	billion cubic metres
CDB	China Development Bank
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
DRC	Democratic Republic of the Congo
FDI	foreign direct investment
FTA	free trade agreement
GDP	gross domestic product
IMF	International Monetary Fund
NATO	North Atlantic Treaty Organization
OECD	Organisation for Economic Co-operation and Development
R&D	research and development
rmb	renminbi

SOE	state-owned enterprise
UEPS	Urban Enterprise Pension System
UK	United Kingdom
UN	United Nations
WTO	World Trade Organization

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David D Hale is a Chicago-based global economist whose clients include asset management companies in North America, Europe, Asia, and Africa. He is the founding chairman of David Hale Global Economics. He formerly worked as chief economist for Kemper Financial Services from 1977 to 1995 and Zurich Financial Services, which he joined as chief economist when it purchased Kemper in 1995. He advised the group's fund management and insurance operations on both the economic outlook and a wide range of public policy issues until 2002, when he founded David Hale Global Economics.

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In September 1990, the New York chapter of the National Association for Business Economics conferred upon Mr Hale the William F. Butler Award.

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