

# CRS Report for Congress

## China's Economic Conditions

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# China's Economic Conditions

## Summary

Since the initiation of economic reforms in 1979, China has become one of the world's fastest-growing economies. From 1979 to 2007 China's real gross domestic product (GDP) grew at an average annual rate of 9.8%. Real GDP grew 11.4% in 2007 (the fastest annual growth since 1994). While China is expected to continue to enjoy rapid economic growth in the years ahead and could become the world's largest economy within a decade or so, it faces a number of challenges, including widespread government corruption, an inefficient banking system, over-dependence on exports and fixed investment for growth, pollution, widening income disparities, and growing inflationary pressures, to name a few. The Chinese government has indicated that it intends, over the coming years, to create a "harmonious society" that would promote more balanced economic growth and address a number of economic and social issues.

Trade and foreign investment continues to play a major role in China's booming economy. From 2004 to 2007, the value of total Chinese merchandise trade nearly doubled. In 2007, China's exports (at \$1,218 billion) exceeded U.S. exports (1,162 billion) for the first time. China's imports were \$956 billion and its trade surplus was \$262 billion (a historic high). Well over half of China's trade is conducted by foreign firms operating in China. The combination of large trade surpluses, foreign direct investment flows, and large-scale purchases of foreign currency have helped make China the world's largest holder of foreign exchange reserves at \$1.5 trillion at the end 2007.

China's economy continues to be a concern to many U.S. policymakers. On the one hand, U.S. consumers, exporters, and investors have greatly benefitted from China's rapid economic and trade growth. On the other hand, the surge in Chinese exports to the United States has put competitive pressures on various U.S. industries. Many U.S. policymakers have argued that China often does not play by the rules when it comes to trade and they have called for greater efforts to pressure China to fully implement its World Trade Organization (WTO) commitments and to change various economic policies deemed harmful to U.S. economic interests, such as its currency policy, its use of subsidies to support state-owned firms, trade and investment barriers to U.S. goods and services, and failure to ensure the safety of its exports to the United States. Concerns have also been raised over China's rising demand for energy and raw materials, its impact on world prices for such commodities, increased pollution levels, and efforts China has made to invest in energy and raw materials around the world, including countries (such as Iran and Sudan) where the United States has political and human rights concerns.

This report provides an overview of China's economic development, challenges China faces to maintain growth, and the implications of China's rise as a major economic power for the United States. This report will be updated as events warrant.

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# China's Economic Conditions

The rapid rise of China as a major economic power within a time span of about 30 years is often described by analysts as one of the greatest economic success stories in modern times. From 1979 (when economic reforms began) to 2007, China's real gross domestic product (GDP) grew at an average annual rate of over 9.8%; in 2007, it rose by 11.4%. The Chinese economy in 2007 (in real terms) was nearly 14 times larger than it was in 1979, and real per capita GDP was more than 10 times larger. By some measurements, China is now the world's second largest economy and some analysts predict it could become the largest within a few decades.

China's economic rise has led to a substantial increase in U.S.-China economic relations. Total trade between the two countries surged from \$5 billion in 1980 to \$387 billion in 2007 (U.S. data). In 2007, China was the United States' second largest trading partner, its third largest export market, and its largest source of imports. Many U.S. companies have extensive manufacturing operations in China in order to sell their products in the booming Chinese market and to take advantage of low cost labor for manufacturing products for export. These operations have helped U.S. firms remain internationally competitive and have supplied U.S. consumers with a variety of low cost goods. China's large-scale purchases of U.S. Treasury securities have enabled the federal government to fund its budget deficits and keep U.S. interest rates relatively low.

However, the emergence of China as a major economic superpower has raised concern among many U.S. policymakers. Some express concern over the large and growing U.S. trade deficits with China, which rose from \$10.4 billion in 1990 to \$256 billion in 2007, and are viewed by many Members as an indicator that U.S.-Chinese commercial relations are imbalanced or unfair. Others claim that China uses unfair trade practices (such as an undervalued currency and subsidies to domestic producers) to flood U.S. markets with low cost goods, and that such practices threaten American jobs, wages, and living standards. Congressional concerns over perceived negative China's economic practices have led to the introduction of numerous bills in the 110<sup>th</sup> Congress, some of which would impose restrictions on imported Chinese products.

Although most economists contend that China will continue to experience rapid economic growth over the next several years, they note that it faces a number of significant challenges, including a weak banking system, widening income gaps, growing pollution, unbalanced economic growth (through over-reliance on exports), and widespread economic inefficiencies resulting from non-market policies.

This report provides background on China's economic rise and current economic structure and the challenges China faces to keep its economy growing strong, and describes Chinese economic policies that are of concern to U.S. policymakers.

## Most Recent Developments

- On August 8, 2008, the Bank of China reported that the exchange rate between the Chinese Renminbi and the U.S. dollar stood at 6.86, an appreciation of 18.2% since China's currency was reformed in July 2005. However, the exchange was 6.82 on July 29, 2008, indicating that the Chinese government had (at least temporarily) allowed its currency to depreciate against the dollar in part in order to help Chinese exporters.
- On August 6, 2008, the Chinese government reported that GDP grew by 10.4% in the first half of 2008 over the same period in 2007. On August 1, 2008, the government reported that foreign direct investment in China had risen by 46% over the same period in 2007.
- On July 28, 2008, the Chinese government announced that there were 253 million internet users in China, a figure they claimed exceeded the number of U.S. users.
- On July 21, 2008, the government reported that the consumer price index for January-June 2008 was had risen by 7.9% over the previous year, raising concerns in China that inflation could threaten future economic growth.<sup>1</sup>
- On June 13, 2008, the Netherlands Environmental Assessment Agency announced that, according to its estimates, China in 2007 became the world's largest emitter of CO<sub>2</sub>, surpassing the United States by 14%, and accounting for two-thirds of last year's global carbon dioxide increase.
- On May 12, 2008, China's Sichuan Province was struck by a strong earthquake. The Chinese government estimated that (as of June 23, 2008) 69,181 people were killed, 374,171 injured, and 18,498 were missing.

## An Overview of China's Economic Development

### China's Economy Prior to Reforms

Prior to 1979, China maintained a centrally planned, or command, economy. A large share of the country's economic output was directed and controlled by the state, which set production goals, controlled prices, and allocated resources throughout most of the economy. During the 1950s, all of China's individual household farms were collectivized into large communes. To support rapid industrialization, the central government undertook large-scale investments in

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<sup>1</sup> The CPI for 2007 was up 4.8% over the previous year (compared with 1.5% in 2006).

physical and human capital during the 1960s and 1970s. As a result, by 1978 nearly three-fourths of industrial production was produced by centrally controlled state-owned enterprises according to centrally planned output targets. Private enterprises and foreign-invested firms were nearly nonexistent. A central goal of the Chinese government was to make China's economy relatively self-sufficient. Foreign trade was generally limited to obtaining only those goods that could not be made or obtained in China.

Government policies kept the Chinese economy relatively stagnant and inefficient, mainly because there were few profit incentives for firms and farmers; competition was virtually nonexistent, and price and production controls caused widespread distortions in the economy. Chinese living standards were substantially lower than those of many other developing countries. The Chinese government hoped that gradual reform would significantly increase economic growth and raise living standards.

## **The Introduction of Economic Reforms**

Beginning in 1979, China launched several economic reforms. The central government initiated price and ownership incentives for farmers, which enabled them to sell a portion of their crops on the free market. In addition, the government established four special economic zones along the coast for the purpose of attracting foreign investment, boosting exports, and importing high technology products into China. Additional reforms, which followed in stages, sought to decentralize economic policymaking in several sectors, especially trade. Economic control of various enterprises was given to provincial and local governments, which were generally allowed to operate and compete on free market principles, rather than under the direction and guidance of state planning. Additional coastal regions and cities were designated as open cities and development zones, which allowed them to experiment with free market reforms and to offer tax and trade incentives to attract foreign investment. In addition, state price controls on a wide range of products were gradually eliminated.

## **China's Economic Growth Since Reforms: 1979-Present**

Since the introduction of economic reforms, China's economy has grown substantially faster than during the pre-reform period (see **Table 1**). From 1960 to 1978, real annual GDP growth was estimated at 5.3% (a figure many analysts claim is overestimated, based on several economic disasters that befell the country during this time, such as the Great Leap Forward from 1958-1960 and the Cultural Revolution from 1966-1976). During the reform period (1979-the present), China's average annual real GDP grew by 9.8%; it grew by an estimated 11.4% in 2007 over the previous year. Since economic reforms were begun, the size of the economy in real terms has increased 14-fold, and real per capita GDP (a common measurement of living standards) has gone up 10-fold.<sup>2</sup>

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<sup>2</sup> Calculated by CRS from data in Global Insight's *Country Intelligence on China's Economy, Detailed Quarterly Forecast*, January 2, 2008.

**Table 1. China's Average Annual Real GDP Growth: 1960-2008**

<b>Time Period</b>	<b>Average Annual Growth (%)</b>
1960-1978 (pre-reform)	5.3
1979-2007 (post-reform)	9.8
1990	3.8
1991	9.3
1992	14.2
1993	14.0
1994	13.1
1995	10.9
1996	10.0
1997	9.3
1998	7.8
1999	7.6
2000	8.4
2001	8.3
2002	9.1
2003	10.0
2004	10.1
2005	9.9
2006	11.1
2007	11.4
First half 2008	11.4

**Source:** Official Chinese government data and Economist Intelligence Unit.

## **Causes of China's Economic Growth**

Economists generally attribute much of China's rapid economic growth to two main factors: large-scale capital investment (financed by large domestic savings and foreign investment) and rapid productivity growth. These two factors appear to have gone together hand in hand. Economic reforms led to higher efficiency in the economy, which boosted output and increased resources for additional investment in the economy.

China has historically maintained a high rate of savings. When reforms were initiated in 1979, domestic savings as a percentage of GDP stood at 32%. However, most Chinese savings during this period were generated by the profits of state-owned enterprises (SOEs), which were used by the central government for domestic investment. Economic reforms, which included the decentralization of economic production, led to substantial growth in Chinese household savings (these now account for half of Chinese domestic savings). As a result, savings as a percentage of GDP has steadily risen; it reached nearly 50% in 2005, among the highest savings rates in the world.



Several economists have concluded that productivity gains (i.e., increases in efficiency in which inputs are used) were another major factor in China's rapid economic growth. The improvements to productivity were caused largely by a reallocation of resources to more productive uses, especially in sectors that were formerly heavily controlled by the central government, such as agriculture, trade, and services. For example, agricultural reforms boosted production, freeing workers to pursue employment in the more productive manufacturing sector. China's decentralization of the economy led to the rise of nonstate enterprises, which tended to pursue more productive activities than the centrally controlled SOEs. Additionally, a greater share of the economy (mainly the export sector) was exposed to competitive forces. Local and provincial governments were allowed to establish and operate various enterprises on market principles, without interference from the central government. In addition, foreign direct investment (FDI) in China brought with it new technology and processes that boosted efficiency.

## Measuring the Size of China's Economy

The actual size of the China's economy has been a subject of extensive debate among economists. Measured in U.S. dollars using nominal exchange rates, China's GDP in 2007 was \$3.2 trillion; its per capita GDP (a commonly used living-standards measurement) was \$2,450. Such data would indicate that China's economy and living standards are significantly lower than those of the United States and Japan, respectively considered to be the number-one and number-two largest economies (see **Table 2**).

Many economists, however, contend that using nominal exchange rates to convert Chinese data into U.S. dollars substantially underestimates the size of China's economy. This is because prices in China for many goods and services are significantly lower than those in the United States and other developed countries. Economists have attempted to factor in these price differentials by using a purchasing power parity (PPP) measurement, which attempts to convert foreign currencies into U.S. dollars on the basis of the actual purchasing power of such currency (based on surveys of the prices of various goods and services) in each respective country. This PPP exchange rate is then used to convert foreign economic data in national currencies into U.S. dollars.

Because prices for many goods and services are significantly lower in China than in the United States and other developed countries (while prices in Japan are higher), the PPP exchange rate raises the estimated size of Chinese economy from \$3.2 trillion (nominal dollars) to \$7.3 trillion (PPP dollars), significantly larger than Japan's GDP in PPPs (\$4.3 trillion), and a little over half the size of the U.S. economy. PPP data also raise China's per capita GDP from \$2,450 (nominal) to \$5,380. The PPP figures indicate that, while the size of China's economy is substantial, its living standards fall far below those of the U.S. and Japan. China's per capita GDP on a PPP basis was only 11.7% of U.S. levels. Thus, even if China's GDP were to overtake that of the United States in the next few decades, its living

standards would likely remain substantially below those of the United States for many years to come.<sup>3</sup>

**Table 2. Comparisons of U.S., Japanese, and Chinese GDP and Per Capita GDP in Nominal U.S. Dollars and PPP, 2007**

Country	Nominal GDP (\$ billions)	GDP in PPP (\$ billions)	Nominal Per Capita GDP	Per Capita GDP in PPP
United States	13,841	13,841	45,820	45,820
Japan	4,378	4,284	34,340	33,610
China	3,242	7,328	2,450	5,380

**Source:** Economist Intelligence Unit (estimated, based on World Bank Data).

## Foreign Direct Investment in China

China's trade and investment reforms and incentives led to a surge in foreign direct investment (FDI), which has been a major source of China's capital growth. Annual utilized FDI in China (excluding the financial sector) grew from \$636 million in 1983 to \$75 billion in 2007.<sup>4</sup> The cumulative level of FDI in China at the end of 2007 stood at nearly \$760 billion, making China one of the world's largest destinations of FDI.

Based on cumulative FDI for 1979-2007 about 40% of FDI in China has come from Hong Kong, 9.7% from the British Virgin Islands,<sup>5</sup> 8.1% from Japan, and 7.4% from the United States. (See **Table 3**).<sup>6</sup> The United States was China's fifth largest

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<sup>3</sup> In December 2007, the World Bank lowered its previous estimate of China's 2005 GDP on a PPP basis by 40% (to \$5.3 trillion), based on price survey data supplied by the Chinese government for the first time. The new PPP estimates are believed to be more accurate than those made previously. See CRS Report RS22808, *How Large is China's Economy? Does it Matter?*, by Wayne M. Morrison and Michael F. Martin.

<sup>4</sup> In 2005, China announced that previous year's FDI data excluded investment in the banking, insurance, and securities sectors. It henceforth began to report two overall FDI figures: one that includes the financial sector and one that excludes it. China's FDI including the financial sector totaled \$72.4 billion in 2005, \$69.5 billion in 2006, and \$82.7 billion in 2007. China does not include the financial sector in its country breakdown of FDI.

<sup>5</sup> The British Virgin Islands is a large source of FDI because of its status as a tax haven.

<sup>6</sup> Much of the FDI originating from the British Virgin Islands and Hong Kong may originate from other foreign investors. For example, Taiwanese businesses are believed to invest in China through other countries in order to circumvent government restrictions. In addition, some Chinese investors might be using these locations to shift funds overseas in order to re-invest in China to take advantage of preferential investment policies (this practice is often referred to as "round-tipping"). Thus the actual level of FDI in China may be overstated.

source of U.S. FDI in 2007, accounting for 3.5% of total.<sup>7</sup> U.S. FDI flows to China peaked at \$5.4 billion in 2002, but have declined every year since. U.S. FDI in China in 2007 fell by nearly 13% over the previous year.

The largest sector for FDI flows to China in 2007 was manufacturing, which accounted for about 55% of total (see **Table 4**).<sup>8</sup> The Chinese government estimates that through June 2007, it had approved over 610,000 foreign funded companies and that 28 million people were employed by such firms (10% of all people employed in urban areas).<sup>9</sup>

**Table 3. Major Foreign Investors in China: 1979-2007**  
(\$ billions and % of total)

Country	Cumulative Utilized FDI: 1979-2007		Utilized FDI in 2007		
	Amount	% of Total	Amount	% of Total	% Change over 2006
Total	760.2	100.0	74.8	100.0	13.4
Hong Kong	300.0	39.5	20.2	37.1	30.0
British Virgin Islands	73.8	9.7	16.6	22.1	41.8
Japan	61.2	8.1	3.6	4.8	-24.6
United States	56.6	7.4	2.6	3.5	-12.8
Taiwan	45.7	6.0	1.8	2.4	-20.4
South Korea	38.7	5.1	3.7	4.9	-7.9

**Source:** Invest in China, [<http://www.fdi.gov.cn>]. Top six investors according to cumulative FDI from 1979 to 2007. Data do not reflect FDI in the financial sector, which the government does not report by country.

**Note:** Chinese data on FDI differ significantly from that of investor countries.

<sup>7</sup> According to the Chinese government, major U.S. investors in China (based on 2003 sales volumes) include Motorola (\$5.8 billion in sales volume), General Motors (\$2.2 billion), Dell Computer (\$2.1 billion), Hewlett Packard (\$1.3 billion), and Kodak (\$0.6 billion).

<sup>8</sup> Communications equipment, computers, and other electronic equipment accounted for the largest manufacturing sector for FDI.

<sup>9</sup> *Xinhua News Agency*, August 28, 2007.

**Table 4. Foreign Direct Investment by Sectors in 2007**

(\$ billions and % of total)

Sectors	Utilized FDI	% of Total
Total	74.8	100.0
Manufacturing	40.9	54.6
Real Estate Development	17.1	23.7
Leasing and Commercial Services	4.0	5.3
Wholesale and Retail Trade	2.7	3.6
Transport, Storage, and Posts	2.0	2.7

Source: Chinese National Bureau of Statistics.

## China's Trade Patterns

Economic reforms have transferred China into a major trading power. Chinese exports rose from \$14 billion in 1979 to \$1,218 billion in 2007, while imports over this period grew from \$16 billion to \$956 billion (see **Table 5**). In 2004, China surpassed Japan as the world's third-largest trading economy, after the European Union (EU) and the United States, and in 2007 it may have become the second largest exporter, surpassing the United States. China's exports has grown dramatically in recent years, doubling in size from 2004 to 2007, with an average annual growth rate of 29%. Imports over this period increased by 70%. China's trade surplus, which totaled \$32 billion in 2004, surged to \$262 billion in 2007.

**Table 5. China's Merchandise World Trade, 1979-2007**

(\$ billions)

Year	Exports	Imports	Trade Balance
1979	13.7	15.7	-2.0
1980	18.1	19.5	-1.4
1985	27.3	42.5	-15.3
1990	62.9	53.9	9.0
1995	148.8	132.1	16.7
2000	249.2	225.1	24.1
2001	266.2	243.6	22.6
2002	325.6	295.2	30.4
2003	438.4	412.8	25.6
2004	593.4	561.4	32.0
2005	762.0	660.1	101.9
2006	969.1	791.5	177.6
2007	1,218.0	955.8	262.2

Source: International Monetary Fund, *Direction of Trade Statistics* and *Global Trade Atlas* (using official Chinese statistics).

Merchandise trade surpluses, large-scale foreign investment, and large purchases of foreign currencies to maintain its exchange rate with the dollar and other currencies have enabled China to accumulate the world's largest foreign exchange reserves. China's accumulation of foreign exchange reserves has been particularly acute over the past few years. China's total reserves reached \$1.5 trillion at the end of December 2007 and by June, they rose to \$1.8 trillion.

## China's Major Trading Partners

China's trade data often differ significantly from those of its major trading partners, especially with the United States. This is largely due to the large share of China's trade (both exports and imports) passing through Hong Kong (which reverted back to Chinese rule in July 1997 but is treated as a separate customs area by most countries, including China and the United States). China treats a large share of its exports through Hong Kong as Chinese exports to Hong Kong for statistical purposes, while many countries that import Chinese products through Hong Kong generally attribute their origin to China for statistical purposes.

According to Chinese trade data, its top five trading partners in 2007 were the European Union (EU), Japan, the United States, the 10 nations that constitute the Association of Southeast Asian Nations (ASEAN), and Hong Kong (see **Table 6**). China's largest export markets were, the EU, the United States, and Hong Kong, while its top sources for imports were the Japan, the EU, and ASEAN (the United States ranked sixth). China maintained substantial trade surpluses with the United States, the EU, and Hong Kong, but had deficits with Japan and ASEAN. China reported that it had a \$163 billion trade surplus with the United States (U.S. data show that it had a \$256 billion deficit with China).

U.S. trade data indicate that the importance of the U.S. market to China's export sector is likely to be much higher than is reflected in Chinese trade data. Based on U.S. data on Chinese exports to the United States and Chinese data on total Chinese exports, it is estimated that Chinese exports to the United States as a share of total Chinese exports totaled 33.6% in 2007. A growing level of Chinese exports is from foreign-funded enterprises (FfEs) in China. According to Chinese data, FfEs were responsible for 57% of Chinese exports in 2007 compared with 41% in 1996. A large share of these FfEs are owned by Hong Kong and Taiwan investors, many of whom have shifted their labor-intensive, export-oriented, firms to China to take advantage of low-cost labor. A large share of the products made by such firms is likely exported to the United States.

Additional information on China's trade with other countries and regions, including Africa, Iran, and North Korea, can be found in **Appendix 1**.

**Table 6. China's Major Trading Partners: 2007**  
(\$ billions)

Country	Total Trade	Chinese Exports	Chinese Imports	China's Trade Balance
European Union	356.2	245.2	111.0	134.2
United States	302.1	232.7	69.4	163.3
Japan	236.0	102.1	134.0	-31.9
ASEAN <sup>a</sup>	202.5	94.2	108.4	-14.1
Hong Kong	197.2	184.3	12.8	171.6

**Source:** *China Monthly Statistics*.

**Note:** Chinese data on its bilateral trade often differ substantially from the official trade data of many of its trading partners.

a. Association of Southeast Asian Nations (ASEAN) member countries are Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar (Burma), and Vietnam.

## Major Chinese Trade Commodities

China's abundance of cheap labor (the average labor cost per hour in China was \$1.35, compared with \$24.50 in the United States in 2006)<sup>10</sup> has made it internationally competitive in many low-cost, labor-intensive manufactures. As a result, manufactured products constitute an increasingly larger share of China's trade. A substantial amount of China's imports is comprised of parts and components that are assembled in Chinese factories (major products include consumer electronic products and computers), then exported. China's top 10 exports and imports in 2007 are listed in **Tables 8** and **9**, respectively, using the harmonized tariff system (HTS) on a four digit level.<sup>11</sup>

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<sup>10</sup> EIU *Industry Wire*, April 4, 2007.

<sup>11</sup> Rankings and classification descriptions differ according to what tariff classification system is used and at what digit level. HTS digit levels range from two to ten. To illustrate, on a 2-digit HTS level, China's top five exports in 2007 were electrical machinery, machinery, knit apparel, woven apparel, and iron and steel. China's top imports on a 2-digit level were electrical machinery; machinery; optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus, and parts and accessories; and ores.

**Table 7. Top 10 Chinese Exports: 2007**

<b>HS #</b>	<b>Description</b>	<b>2006</b>	<b>% of Total Exports</b>	<b>2006-2007 % Change</b>
	<b>Total Exports</b>	<b>1,218.0</b>	<b>100.0</b>	<b>25.7</b>
8471	Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing and processing coded data, NESOI	93.5	7.7	0.5
8517	Electric apparatus for line telephony etc, parts	78.6	6.5	566.2
8528	Television receivers, including video monitors and video projectors	36.2	3.0	182.4
8473	Parts etc for typewriters and other office machines	32.7	2.7	-0.9
8542	Electronic integrated circuits and micro-assemblies; parts thereof	24.0	2.0	11.1
9013	Liquid crystal devices nesoi, lasers, optical appliances and instruments, and parts	20.6	1.7	39.2
8443	Printing machinery used for printing by means of plates, cylinders and other printing components; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof: printing machinery used for printing by means of plates, cylinders and other printing components	18.7	1.5	4,548.1
6110	Sweaters, pullovers, and vests, etc, knit or crocheted	16.0	1.3	24.8
8504	Electrical transformers, static converters (for example, rectifiers) and inductors; parts	14.2	1.2	29.1
6204	Women's or girls' suits, ensembles, etc. not knit	13.4	1.1	7.8

**Source:** World Trade Atlas.

**Notes:** Harmonized Tariff, four-digit level. NESOI means not elsewhere specified or included.

**Table 8. Top 10 Chinese Imports: 2007**

<b>HS #</b>	<b>Description</b>	<b>Value (\$billions)</b>	<b>% of Total</b>	<b>2006-2007 % Change</b>
	<b>Total</b>	<b>995.8</b>	<b>100.0</b>	<b>20.8</b>
8542	Electronic integrated circuits and micro-assemblies; parts thereof	129.5	13.5	20.8
2709	Crude oil from petroleum and bituminous minerals	79.7	8.3	20.0
9013	Liquid crystal devices NESOI; lasers; optical appliances and instruments NESOI; parts and accessories thereof	45.2	4.7	25.9
2601	Iron ores and concentrates	33.8	3.5	62.5
8471	Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing and processing coded data, NESOI	20.0	2.1	0.5
8517	Electric apparatus for line telephony etc, and parts	18.8	2.0	416.5
8473	Parts etc for typewriters & other office machines	17.5	1.8	-8.7
8529	Parts for television, radio and radar apparatus	19.7	2.5	18.8
2710	Oil (not crude) from petrol and bituminous mineral etc.	16.3	1.7	5.0
8541	Diodes, transistors and similar devices; photosensitive semiconductor devices; light-emitting diodes; mounted piezoelectric crystals; parts thereof	15.6	1.6	18.7
1201	Soybeans	11.5	1.2	53.1

**Source:** World Trade Atlas.

**Notes:** Harmonized Tariff, four-digit level. NESOI means not elsewhere specified or included.

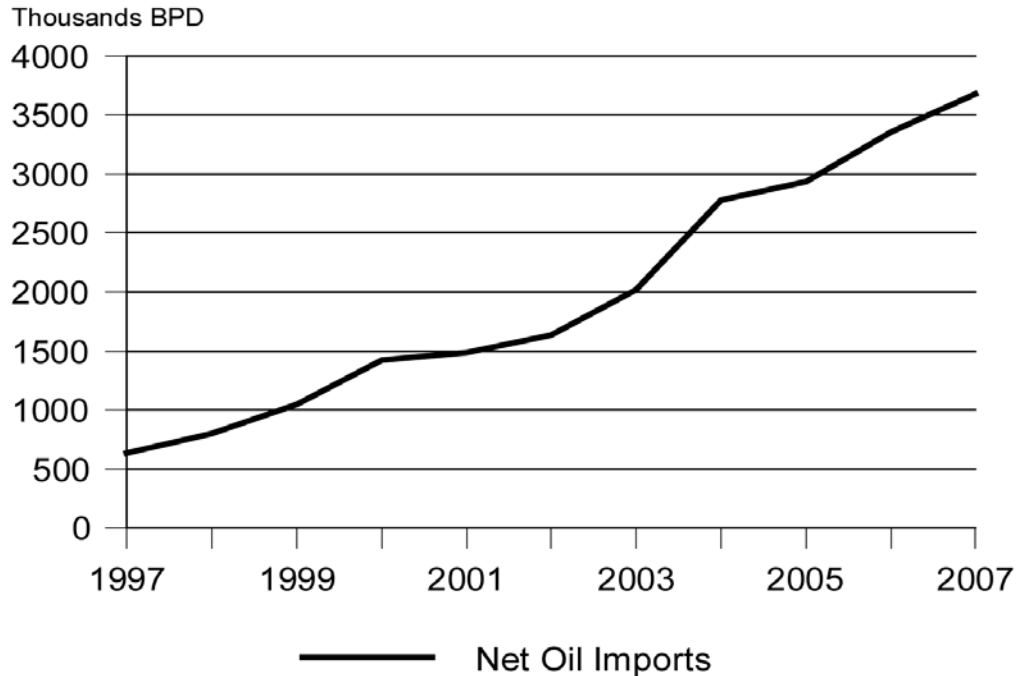
## **China's Growing Appetite for Imported Oil**

China's rapid economic growth has fueled a growing demand for energy, such as petroleum, and that demand is becoming an increasingly important factor in determining world oil prices. China is now the world's second largest consumer of oil products (after the United States) at 7.8 million barrels per day (bpd) in 2007 (compared to 4.8 million in 2007), and that level is projected to 13.6 million bpd by



2030 (depending on China's future growth and energy policies).<sup>12</sup> China became a net oil importer (i.e., imports minus exports) in 1993. Net oil imports grew from 632 thousand bpd in 1997 to about 3.7 million bpd in 2007, nearly a six fold increase (see **figure 1**), and making it the world's third largest net oil importer (after the United States and Japan). China's net oil imports are projected to rise to 13.1 million bpd by 2030, a level that would be comparable to the European Union in that year. China's dependence on imported oil could rise from about the current level of about 50% to 80% by 2030.<sup>13</sup>

**Figure 1. China's Net Oil Imports: 1997-2007**



Source: U.S. Energy Administration.

## China's Growing Overseas Direct Investment

A key aspect of China's economic growth strategy has been to attract foreign investment into China. However, in 2000, China's leaders initiated a new "go global" strategy, which sought to encourage firms (especially state-owned enterprises) to invest overseas. The Chinese government generally refers to these activities as overseas direct investment (ODI). There appears to be several factors driving this investment:

<sup>12</sup> Global Insight, *Global Petroleum Outlook Forecast Tables (Long-Term)*, August 2008.

<sup>13</sup> International Energy Agency, *2007 World Energy Outlook*, p. 168. Estimates are based on Reference Scenario projections, which assume no new government policies and measures or technological breakthroughs.

- China's massive accumulation of foreign exchange reserves has led government officials to seek more profitable ways of investing these holdings (which traditionally have mainly been put into relatively safe, low yield assets, such as U.S. Treasury securities). On September 29, 2007, the Chinese government officially launched the China Investment Corporation (under the direction of the State Council) in an effort to better manage its foreign exchange reserves. It reportedly will initially manage over \$200 billion, making it one of the world's largest sovereign wealth funds. Some analysts believe that China will increasingly use its reserves to purchase foreign firms, or shares of foreign firms, that are perceived to be profitable.
- As a developing country, China has traditionally sought to attract FDI into the country in order to, through joint ventures, gain access to foreign technology and management skills to help domestic firms become more efficient and internationally competitive. Now the Chinese government is attempting to promote the development of internationally recognized Chinese brands. One strategy has been to purchase (or attempt to purchase) existing companies and their internationally-recognized brand names (as well as to obtain technology and management skills). For example, in April 2005 Lenovo Group Limited, a Chinese computer company, purchased IBM Corporation's personal computer division for \$1.75 billion.<sup>14</sup> On June 20, 2005, Haier Group, a major Chinese home appliances manufacturer, made a \$1.28 billion bid to take over Maytag Corporation, although the bid was later withdrawn.
- Acquisition of energy and raw materials has been a major priority of China's overseas investment strategy. As such, China has sought to either purchase or invest in foreign energy and raw material companies, infrastructure projects (such as oil and gas pipelines, oil refineries, and mines), and joint ventures.<sup>15</sup> For example, in June 2005, the China National Offshore Oil Corporation (CNOOC), through its Hong Kong subsidiary (CNOOC Ltd.), made a bid to buy a U.S. energy company, UNOCAL, for \$18.5 billion, although CNOOC later withdrew its bid due to opposition by several congressional Members. In August 2005, the China National Petroleum Corporation (CNPC), China's largest oil company, purchased PetroKazakhstan Inc., a Canadian-registered company, for \$4.2 billion.<sup>16</sup> According to the Eurasia Group, since the 1990s

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<sup>14</sup> The Chinese government is believed to be the largest shareholder in the company.

<sup>15</sup> For a monthly listing of China's international activities relating to energy and raw materials, see China Institute at the University of Alberta at [<http://www.uofaweb.ualberta.ca/chinainstitute/index.cfm>].

<sup>16</sup> *Asia Times*, August 24, 2005.

CNPC has signed energy deals with Sudan worth \$10 billion, with \$4 billion in actual investment.<sup>17</sup>

China reported that its ODI in 2007 (excluding the finance sector) totaled \$18.7 billion (up from \$2.9 billion in 2003), ranking it as the world's 13<sup>th</sup> largest investor. It is estimated that China's cumulative ODI through 2007 was \$93.7 billion.<sup>18</sup> One Chinese official estimated that annual ODI flows could reach \$60 billion, with a total cumulation of \$120 billion by 2010.<sup>19</sup>

**Table 9** lists the top 10 destinations for China's cumulative ODI as of 2005. Hong Kong was by far the major destination (accounting for 64%), followed by the Cayman Island, the British Virgin Islands, South Korea, and the United States.<sup>20</sup> Some analysts contend that much of the ODI going to Hong Kong and Caribbean islands represents "round tipping," that is investment that is sent overseas but then re-invested elsewhere (including China). Some analysts suspect that some of that capital could be going into tax havens.

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<sup>17</sup> Eurasia Group, *China's Overseas Investments in Oil and Gas Production*, October 16, 2006, p. 20.

<sup>18</sup> Cygnus, *Economy Monitor, Chinese Economy*, May-June 2008, p.7.

<sup>19</sup> *Anbound-China Market*, June 12, 2007 (for estimate of estimated annual flow in 2010) and Glob@1 Finance Center, *Chinese Outward Direct Investment (ODI)*, May 5, 2007 (for estimate of cumulative flow in 2010).

<sup>20</sup> In terms of regions, Asia accounted for 71.0% of China's ODI, followed by Latin America (20.0%), Europe (2.8%), Africa (2.8%), North America (2.2%), and Oceania (1.1%).

**Table 9. Top 10 Destinations for China's Overseas Direct Investment: 2005**  
(\$ millions)

Country	Cumulative FDI
Hong Kong	36,510
Cayman Islands	8,936
British Virgin Islands	1,984
South Korea	882
United States	823
Macau	599
Australia	587
Russian Federation	466
Sudan	352
Bermuda	337
Total Chinese ODI	57,200

Source: China Statistical Yearbook, 2006.

## Major Long-Term Challenges Facing the Chinese Economy

China's economy has shown remarkable economic growth over the past several years, and many economists project that it will enjoy fairly healthy growth in the near future. However, economists caution that these projections are likely to occur only if China continues to make major reforms to its economy. Failure to implement such reforms could endanger future growth.

- **An inflexible currency policy.** China does not allow its currency to float and therefore must make large-scale purchases of dollars to keep the exchange rate within certain target levels. Although the yuan has appreciated somewhat since reforms were introduced in July 2005, analysts contend that it remains highly undervalued against the dollar. Economists warn that China's currency policy has made the economy overly dependent on exports and fixed investment for growth and has promoted easy credit policies by the banks. These policies may undermine long-term economic stability by causing overproduction in various sectors, increasing the level of non-performing loans held by the banks (see below), and boosting

inflationary pressures.<sup>21</sup> In recent months, the Chinese government has expressed growing concerns over “hot money” that is pouring in from outside the country from investors who hope to take advantage of China’s rapid economic growth and rising exchange rate with the dollar. Such hot money flows into the economy and adds additional inflationary pressures.<sup>22</sup>

- **State-owned enterprises (SOEs)**, which account for about one-third of Chinese industrial production, put a heavy strain on China’s economy. Over half are believed to lose money and must be supported by subsidies, mainly through state banks. Government support of unprofitable SOEs diverts resources away from potentially more efficient and profitable enterprises. In addition, the poor financial condition of many SOEs makes it difficult for the government to reduce trade barriers out of fear that doing so would lead to widespread bankruptcies among many SOEs.
- **The banking system** faces several major difficulties due to its financial support of SOEs and its failure to operate solely on market-based principles. China’s banking system is regulated and controlled by the central government, which sets interest rates and attempts to allocate credit to certain Chinese firms. The central government has used the banking system to keep afloat money-losing SOEs by pressuring state banks to provide low-interest loans, without which a large number of the SOEs would likely go bankrupt. Currently, over 50% of state-owned bank loans now go to the SOEs, even though a large share of loans are not likely to be repaid. The precarious financial state of the Chinese banking system has made Chinese reformers reluctant to open the banking sector to foreign competition. Corruption poses another problem for China’s banking system because loans are often made on the basis of political connections. This system promotes widespread inefficiency in the economy because savings are generally not allocated on the basis of obtaining the highest possible returns.
- **Growing public unrest.** The Chinese government reported that there were over 87,000 protests (many of which became violent) in 2005 (compared with 53,000 protests in 2003) over such issues as pollution, government corruption, and land seizures.<sup>23</sup> A number of protests in China have stemmed in part from frustrations among many Chinese (especially peasants) that they are not benefitting from

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<sup>21</sup> For further information on the economic consequences of China’s currency policy, see CRS Report RL32165, *China’s Currency: Economic Issues and Options for U.S. Trade Policy*, by Wayne M. Morrison and Marc Labonte.

<sup>22</sup> See CRS Report RS22921, *China’s ‘Hot Money’ Problems*, by Michael F. Martin and Wayne M. Morrison.

<sup>23</sup> See CRS Report RL33416, *Social Unrest in China*, by Thomas Lum.

China's economic reforms and rapid growth, and perceptions that those who are getting rich are doing so because they have connections with government officials. Protests have broken out over government land seizures and plant shutdowns in large part due to perceptions that these actions benefitted a select group with connections. A 2005 United Nations report stated that the income gap between the urban and rural areas was among the highest in the world and warned that this gap threatens social stability. The report urged China to take greater steps to improve conditions for the rural poor, and bolster education, health care, and the social security system.<sup>24</sup>

- **The lack of the rule of law** in China has led to widespread government corruption, financial speculation, and misallocation of investment funds. In many cases, government "connections," not market forces, are the main determinant of successful firms in China. Many U.S. firms find it difficult to do business in China because rules and regulations are generally not consistent or transparent, contracts are not easily enforced, and intellectual property rights are not protected (due to the lack of an independent judicial system). The lack of the rule of law in China limits competition and undermines the efficient allocation of goods and services in the economy. Recent reports of slave labor in northern China has also raised public anger over the lack of enforcement of labor laws.
- **Poor government regulatory environment.** China maintains a weak and relatively decentralized government structure to regulate economic activity in China. Laws and regulations often go unenforced or are ignored by local government officials. As a result, many firms cut corners in order to maximize profits. This has led to a proliferation of unsafe food and consumer products being sold in China or exported abroad.<sup>25</sup> Growing concerns over the health and safety of Chinese products (such as fish, petfood, tires, and toys) in the United States and other countries could lead consumers to reduce their purchases of Chinese products and could undermine China's efforts to develop and promote internationally recognized Chinese brands.
- **Growing pollution.** The level of pollution in China continues to worsen, posing series health risks to the population. The Chinese government often disregards its own environmental laws in order to promote rapid economic growth. According to the World Bank, 20 out of 30 of the world's most polluted cities are in China, with significant costs to the economy (such as health problems, crop failures and water shortages). According to one government

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<sup>24</sup> *China's Human Development Report 2005.*

<sup>25</sup> See CRS Report RS22713, *Health and Safety Concerns Over U.S. Imports of Chinese Products: An Overview*, by Wayne M. Morrison.

estimate, environmental damage costs the country \$226 billion, or 10% of the country's GDP, each year. The Chinese government estimates that there are over 300 million people living in rural areas that drink unsafe water (caused by chemicals and other contaminants). Toxic spills in 2005 and 2006 threatened the water supply of millions of people. China is the largest producer and consumer of coal, which accounts for about 70% of China's energy use. Although growing environmental degradation has been recognized as a serious problem by China's central government, it has found it difficult to induce local governments to comply with environmental laws, especially when such officials feel doing so will come at the expense of economic growth.

In October 2006, the Chinese government formally outlined its goal of building a "harmonious socialist society" by taking steps (by 2020) to lessen income inequality, improve the rule of law, beef up environmental protection, reduce corruption, and improve the country's social safety net (such as expanding health care and pension coverage to rural areas). In March 2007, the Chinese National People's Congress (NPC) passed a law to strengthen property laws to help prevent local governments from unfairly seizing land from farmers, and in June 2007 it passed a new labor contract law to enhance labor rights. In addition, the government has scrambled to improve health and safety laws and regulations.

## **Outlook for China's Economy and Implications for the United States<sup>26</sup>**

The short-term outlook for the Chinese economy appears to be positive, but it will likely be strongly influenced by the government's ability to reform the SOEs and banking system to make them more responsive to market forces, increase the flexibility of its exchange rate policy, and to assist workers who lose their jobs due to economic reforms (in order to maintain social stability). Global Insight, an economic forecasting firm, projects that China's real GDP will average 7.8% over the next 10 years, indicating that China could double the size of its economy in less than 10 years. Real GDP is projected to rise by 10.2% in 2008.<sup>27</sup> However, rising costs of energy and raw materials, an economic slowdown in the United States (China's most import export market), and efforts to slow inflation could negatively affect China's economic growth prospects.

China's rise as an economic superpower is likely to pose both opportunities and challenges for the United States and the world trading system. China's rapid economic growth has boosted incomes and is making China a huge market for a variety of goods and services. In addition, China's abundant low-cost labor has led multinational corporations to shift their export-oriented, labor-intensive

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<sup>26</sup> For further discussion of this issue, see CRS Report RL33604, *Is China a Threat to the U.S. Economy?*, by Craig K. Elwell, Marc Labonte, and Wayne M. Morrison.

<sup>27</sup> Global Insight, *China: Interim Forecast Analysis: Economic Growth*, June 10, 2008.

manufacturing facilities to China. This process has lowered prices for consumers, boosting their purchasing power. It has also lowered costs for firms that import and use Chinese-made components and parts to produce manufactured goods, boosting their competitiveness. Conversely, China's role as a major international manufacturer has raised a number of concerns. Many developing countries worry that growing FDI in China is coming at the expense of FDI in their country. Policymakers in both developing and developed countries have expressed concern over the loss of domestic manufacturing jobs that have shifted to China (as well as the downward pressures on domestic wages and prices that may occur from competing against low-cost Chinese-made goods).

Many analysts contend that China's currency policy (despite reforms undertaken in 2005 and the yuan's gradual appreciation), is having a negative impact on the economies of many of its trading partners (including the U.S.) by artificially making its exports cheaper, and imports more expensive, than they would be under a floating system. They have urged China to move toward a floating exchange rate regime as soon as possible, contending that such a move would benefit China's economy and those of its trading partners.<sup>28</sup> For example, China's accumulation of large foreign exchange reserves has forced it to increase the money supply, which may eventually lead to inflationary pressures on the economy.<sup>29</sup> In addition, many analysts contend that easy money policies have led to over-investment in certain economic sectors. However, Chinese officials have expressed concern that further currency reforms, if implemented too quickly, could prove disruptive to the economy. A number of bills have been introduced in the 110th Congress to address Chinese currency policy, including some that would impose sanctions against China.

China is attempting to establish and promote companies that can compete globally, especially in advanced technologies. In some cases, China has attempted to purchase large foreign companies. China's possession of large currency reserves and desire to become a world leader in the production of a variety of goods and strategic commodities will likely lead the Chinese government to expand efforts to take over major international corporations. Many Members charge that China's use of extensive subsidies to support state-owned firms threatens U.S. economic interests and may violate its WTO commitments.

Obtaining energy supplies has become a major focus of China's foreign policy. This has increased concerns among U.S. policymakers for a number of reasons. First, China is becoming increasingly dependent on oil producers in the Persian Gulf region. Currently, China gets about 32% of its oil imports from the region, but by 2030, that level is projected to rise to 53%. This could induce China to become increasingly involved in Middle East affairs. In addition, China is actively involved in gaining greater access to energy in Africa, where it gets nearly a third of its oil imports. Angola was China's second largest source of oil in 2006. Second, instead of just buying oil in international markets, China has increasingly sought to purchase

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<sup>28</sup> For a discussion of this issue, see CRS Report RS21625, *China's Currency: A Summary of the Economic Issues*, by Wayne M. Morrison and Marc Labonte.

<sup>29</sup> So far, most of the inflationary pressures on the economy have come from food, which was affected by severe storms this past winter.



or invest in foreign oil companies, production facilities, pipelines, oil fields, and refineries around the world.<sup>30</sup> Finally, China's thirst for oil has led it to obtain agreements with countries the United States has major human rights and foreign policy concerns with (such as Iran and Sudan). Many U.S. policymakers are concerned that China's energy needs will lead it to oppose U.S. foreign policy objectives and that this could result in increased tensions between the United States and China.

A growing concern over China's energy use and rising demand is the possible global environmental consequences. According to one estimate, one-third of the air pollution in the West Coast of the United States comes from China.<sup>31</sup> The Netherlands Environmental Assessment Agency estimates that China was the largest CO<sub>2</sub> emitter in 2007, surpassing the United States by 14% and accounting for two-thirds of last year's global carbon dioxide increase.<sup>32</sup> According to the International Energy Agency, between 2005 and 2030, China will build more new electricity generating capacity than currently exists in the United States.

Some U.S. policymakers have expressed concern over China's rising ownership of U.S. government debt, due to fears that China might attempt to use its holdings as leverage in its dealings with the United States on economic and/or political matters. China is the second largest foreign holder of Treasury securities (after Japan), and both the level of those holdings and China's share of total foreign holdings have increased sharply over the past few years. These went from \$51.8 billion in 1999 to \$507 billion as of May 2008. China's U.S. Treasury securities holdings as a share of total foreign holdings over this period have grown from 4.1% to 19.4%. Some have raised concerns that threats by China to halt future purchases, or to sell existing holdings, could cause the value of the dollar to depreciate in world markets (raising import prices), increase U.S. interest rates, lead to a decline in U.S. stock and bond markets, and possibly cause the U.S. economy to slow. However, any such disruption to the U.S. economy would also hurt China's economy since about a third of China's exports go to the United States.<sup>33</sup>

## **Appendix 1. China's Growing Economic Ties with Africa, North Korea, and Iran**

China has sought to expand its trade with countries around the world, especially those that possess energy and raw materials China needs to sustain its rapid economic growth, such as those in Africa. Although China's trade with these countries is

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<sup>30</sup> See the National Bureau of Asian Research, *China's Search for Energy Security: Implications for the United States*, by Kenneth Lieberthal and Mikkal Herberg April 2006.

<sup>31</sup> The Aspen Institute, U.S.-China Relations, Eight Conference (April 9-15, 2006), *China Energy Issues*, by Hal Harvey, M.S., p. 15.

<sup>32</sup> See the Netherlands Environmental Assessment Agency's report at [<http://www.mnp.nl/en/publications/2008/GlobalCO2emissionsthrough2007.html>].

<sup>33</sup> See CRS Report RL34314, *China's Holdings of U.S. Securities: Implications for the U.S. Economy*, by Wayne M. Morrison and Marc Labonte.

relatively small (compared with its major trading partners), it is growing rapidly. China is also a major trading partner of various countries that pose challenges to U.S. foreign policy, such as Iran, Sudan, and North Korea.<sup>34</sup>

## China-Africa Trade

**China's Imports From Africa.** China's imports from Africa as a percent of its total imports grew from 2.8% in 2004 to 3.8% in 2007 (to \$36.3 billion).<sup>35</sup> As a whole, Africa was China's seventh largest source of imports in 2007. China's imports from Africa grew by 25.9% over the previous year (compared to total Chinese imports growth of 20.8%). Mineral fuels were by far China's largest import from Africa, accounting for 72% of total imports. Angola was China's largest source of imports from Africa, accounting for 35% of those imports in 2007, followed by South Africa, Sudan, the Congo, and Equatorial Guinea. China's imports from Sudan were up 112% over the previous year (see **Tables 11** and **12**). In 2006, China was Sudan's largest source of imports (18.2% of total).<sup>36</sup>

**Table 10. Top Five African Sources of Chinese Imports:  
2004-2007**  
(\$ millions)

	2004	2005	2006	2007	2006-2007 % Change
<b>Africa Total</b>	<b>15,641</b>	<b>21,114</b>	<b>28,768</b>	<b>36,330</b>	<b>25.9</b>
Angola	4,718	6,581	10,931	12,885	17.9
South Africa	2,955	3,444	4,095	6,608	61.4
Sudan	1,706	2,615	1,941	4,114	111.9
Congo	1,569	2,278	2,785	2,828	1.6
Equatorial Guinea	995	1,486	2,538	1,697	-33.1

**Source:** *World Trade Atlas*. Official Chinese statistics.

<sup>34</sup> For additional information on policy challenges posed by North Korea, see CRS Report RL33590, *North Korea's Nuclear Weapons Development and Diplomacy*, by Larry A. Nicksch; and CRS Report RL32493, *the North Korean Economy: Leverage and Policy Analysis*, by Dick K. Nanto, Emma Chanlett-Avery. For information on policy challenges posed by Sudan, see CRS Report RL33574, *Sudan: The Crisis in Darfur and Status of the North-South Peace Agreement*, by Ted Dagne.

<sup>35</sup> In comparison, U.S. imports from Africa in 2006 were \$92.0 billion. Note, the United States reports import trade data on a customs basis, while China reports imports on a cost, insurance, and freight (C.I.F.) basis. The C.I.F. basis differs from the customs basis in that the former includes the cost of insurance and freight and thus raises the value of imports (which the customs basis does not), by about 10%.

<sup>36</sup> Central Intelligence Agency, *the 2008 World Factbook*.

**Table 11. Top Five Chinese Imports from Africa: 2004-2007**  
(\$ millions and %)

HS 2 Commodity Description	2004	2005	2006	2007	% of Total 2007	2006-2007 % Change
Mineral fuel, oil, etc	10,135	14,676	21,083	25,997	71.8	23.3
Ores, slag, ash	1,393	1,577	2,116	3,298	9.1	55.9
Precious stones and metals	742	967	1,196	1,358	3.8	13.5
Wood	473	524	705	915	2.5	29.8
Iron and steel	439	475	315	851	2.4	170.6

Source: *World Trade Atlas*. Official Chinese statistics.

**China's Mineral Fuel Imports From Africa.** Africa has become an important source of China's surging energy needs. In 2007, 72% of China's imports from Africa were mineral fuels. China's fuel imports from Africa rose from \$10.1 billion in 2004 to \$26.0 billion in 2007. In 2007, Africa supplied 24.8% of China's imported mineral fuels (compared with 9.1% in 1997). Angola was China's second largest overall mineral fuel supplier and its largest African supplier. Other major African suppliers (and the world rank) of mineral fuel to China were Sudan (7<sup>th</sup>), the Congo (12<sup>th</sup>), Equatorial Guinea (18<sup>th</sup>), and Libya (19<sup>th</sup>) (see **Table 12**).

**Table 12. Top Five African Suppliers of Mineral Fuel to China: 2007**

Country	Imports (\$millions)	Rank as a Supplier of Mineral Fuel to China
Angola	12,876	2
Sudan	4,086	7
Congo	2,307	12
Equatorial Guinea	1,566	18
Libya	1,528	19
<b>Africa Total</b>	<b>25,997</b>	—

Source: *Global Trade Atlas*.

**China's Exports to Africa.** The share of Chinese exports going to Africa rose from 2.3% in 2004 to 3.1% in 2007 (to \$37.3 billion).<sup>37</sup> If Africa were treated as a single trading partner, it would rank as China's seventh largest export market in 2007. Exports to Africa grew by 39.7% over the previous year (compared to China's

<sup>37</sup> In comparison, total U.S. exports to Africa in 2007 were \$23.7 billion (2.0% of total U.S. exports in 2007).

total exports growth of 25.7%). Major Chinese exports to Africa in 2007 included electrical machinery, machinery (such as computers and components), vehicles (mainly motorcycles and trucks), apparel, and iron and steel products. The top five African destinations of Chinese exports in 2007 were South Africa, Egypt, Nigeria, Algeria, and Morocco (see **Tables 13** and **14**). In 2006, China was Sudan's second largest export market (31% of total).<sup>38</sup>

**Table 13. China's Top Five African Export Markets: 2004-2007**  
(\$ millions)

Country	2004	2005	2006	2007	2006-2007 % Change
<b>Africa Total</b>	<b>13,815</b>	<b>18,687</b>	<b>26,705</b>	<b>37,314</b>	<b>39.7</b>
South Africa	2,952	3,826	5,769	7,429	28.8
Egypt	1,389	1,935	2,976	4,432	48.9
Nigeria	1,719	2,305	2,856	3,800	33.1
Algeria	981	1,405	1,952	2,709	48.8
Morocco	944	1,206	1,570	2,162	37.8

Source: *World Trade Atlas*. Official Chinese statistics.

**Table 14. Top Five Chinese Exports to Africa: 2004-2007**  
(\$ millions)

HS 2 Commodity Description	2004	2005	2006	2007	% of Total 2007	2006- 2007 % Change
Electrical machinery and parts <sup>a</sup>	1,905	2,799	4,122	5,806	15.6	40.9
Machinery, mechanical appliances, and parts	1,374	2,141	3,220	4,517	12.1	40.3
Vehicles (excluding railway)	936	1,448	2,023	3,165	8.5	56.4
Knit apparel	828	938	1,537	2,940	7.9	91.3
Iron/steel products	654	903	1,225	1,920	5.1	56.7

Source: *World Trade Atlas*. Official Chinese statistics.

- a. Includes electrical machinery and equipment and parts thereof; sound recorders and reproducers; television image and sound recorders and reproducers; and parts and accessories of such articles.

<sup>38</sup> Central Intelligence Agency, *the 2008 World Factbook*

## China's Trade with North Korea

China is North Korea's largest trading partner and a major supplier of foreign aid (largely in the form of food and fuel).<sup>39</sup> In 2007, Chinese exports to, and imports from, North Korea totaled \$1.4 billion and \$582 million, respectively. North Korea was China's 68<sup>th</sup> largest source of imports (0.06% of total) and its 68<sup>th</sup> largest export market (0.11% of total).<sup>40</sup> Chinese exports to North Korea rose by 13.0% and imports were up 24.3%, over 2006 levels. China accounted for 37.3% of North Korea's exports and 39.8% of its imports (2005 data).<sup>41</sup> According to Chinese data, its top five exports to North Korea (2007) were oil, machinery, electrical machinery (such as TVs), plastics, and vehicles (see **Table 15**), while its top imports from North Korea were ores, coal, woven apparel, fish, and iron and steel (see **Table 16**).

**Table 15. Major Chinese Exports to North Korea: 2004-2007**  
(\$ millions and % change)

	2004	2005	2006	2007	2006-/2007 % Change
<b>Total Exports</b>	<b>795</b>	<b>1,085</b>	<b>1,232</b>	<b>1,392</b>	<b>13.0</b>
Mineral fuel, oil, etc. (mainly oil)	204	286	348	402	15.7
Machinery	40	77	83	104	25.0
Electrical machinery (such as TVs)	46	57	98	69	-29.0
Plastics	32	52	52	55	5.0
Vehicles (except railway)	18	28	28	54	92.1

Source: *World Trade Atlas*.

**Table 16. Major Chinese Imports from North Korea: 2004-2007**  
(\$ millions and % change)

	2004	2005	2006	2007	2006-2007 % Change
<b>Total Imports</b>	<b>582</b>	<b>497</b>	<b>468</b>	<b>582</b>	<b>24.3</b>
Mineral fuel, oil, etc. (mainly coal)	53	112	102	170	55.1
Ores, slag, and ash	59	92	118	164	38.5
Woven apparel	49	58	63	60	-4.7
Iron and steel	75	72	35	45	28.2
Fish and seafood	261	92	43	30	-30.8

Source: *World Trade Atlas*.

<sup>39</sup> See CRS Report RL31785, *Foreign Assistance to North Korea*, by Mark E. Manyin; and CRS Report RL32493, *The North Korean Economy: Background and Policy Analysis*, by Dick K. Nanto and Emma Chanlett-Avery.

<sup>40</sup> Source: *World Trade Atlas*.

<sup>41</sup> Economist Intelligence Unit, *Country Report, North Korea*, February 2008, p. 5.

## China's Trade With Iran

According to the International Monetary Fund (IMF), China was Iran's largest second trading partner, after EU in 2006.<sup>42</sup> China was Iran's fourth largest export market (at \$9.0 billion), and its second largest source of imports (at \$4.9 billion). China has become an increasingly important trading partner for Iran in recent years. Iranian exports to China as a share of its total exports rose from 9.7% in 2002 to 12.9% in 2006, while Iranian imports from China as a share of its total imports increased from 4.7% to 10.6%.

Iran constitutes a relatively minor, though growing, trading partner for China. According to Chinese data, Iran was its 16<sup>th</sup> largest trading partner in 2007. China's exports to, and imports from, Iran totaled \$7.3 billion and \$13.3 billion, respectively. China's exports to Iran rose by 62.1% and imports from Iran were up by 33.7%. China's top exports to Iran in 2007 were iron and steel (\$1.6 billion), machinery (\$1.1 billion), vehicles and parts (\$880 million). China's imports from Iran were dominated by crude oil, which totaled \$11.6 billion and constituted 87.2% of total Chinese imports. Iran was China's third largest source of mineral fuels imports in 2007; these constituted 11.1% of China's total world oil of these products.<sup>43</sup> According to press reports, China's state-owned oil companies have signed oil and gas deals with Iran worth over \$100 billion.<sup>44</sup>

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<sup>42</sup> China was the largest if EU countries are counted separately.

<sup>43</sup> *The Iran Daily* (July 25, 2007) contended that Iran had become China's largest source of oil imports.

<sup>44</sup> *Reuters News*, December 21, 2006.