

United States – China Trade Volume and Direction and its Impact on the  
United States Economy

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United States – China Trade Volume, Direction, and its Impact on the  
United States Economy

**I) Executive Summary**

People's Republic of China is one of the fastest growing economies in the world. During the last ten years it has consistently attained double digit economic growth rates. Between 1997 and 2007 China's average economic growth rate was 10%. Between 1980 and 2006, China's GDP per capita rose from \$300 to \$2,000. This economic growth is fueled by considerable inflows of foreign direct investments that have poured millions of dollars into the manufacturing sector, making China the manufacturing center of the world. In addition to the FDI flows, China has also benefited from an increase in its exports that has resulted in a current account balance of nearly 180 billion dollars. The growth in the economic sector combined with the tremendous increase in China's exports has led China to be one of the fastest growing economies in the world. China, with a GDP of over ten trillion dollars ranks second only to the U.S. in terms size of the economy. Today, China is the third largest trading partner of the United States.

Since 2000, the total trade in goods (exports and imports) between the two countries has increased by 300% from 116 billion dollars in 2000 to 343 billion dollars in 2006. What is alarming to most United States policy makers is the trend in the direction of trade between the two countries. While the United States exports to China are rising, imports from China are rising even at a faster rate.

The emergence of China as a major international force in international trade has had far reaching economic impact on the global marketplace and more importantly on the U.S. as a country. A troubling trend in the trade between the U.S. and China are the type of goods that are traded between the two countries. The U.S. imports more value-added goods from China and its exports to China are in raw materials and agricultural products that do not have the same value-added element as finished or manufactured goods have. Between

1996 and 2006 nearly 95% of all China's exports to the U.S have been in manufactured goods such as aerospace components, computers, and electronic goods.

The ballooning U.S. trade deficit implies that the country is depending on foreign goods to satisfy the needs of its population and the country's own manufacturing base is weak.

Among the reasons for the United States trade deficit are: the stable and relatively free domestic U.S. goods and services market that attracts foreign investments that help the U.S pay for its imports over and above what the country exports; an expanding U.S. economy demands goods and services that is not met by domestic production; the increasing costs associated with U.S. domestic manufacturing coupled with continued quality improvements made by countries such as Japan, South Korea and Taiwan are creating a depressed demand for American made products; for years the U.S has always had negative trade imbalance with its trading partners, but in the recent past this trade imbalance has shifted from other trading partners to China; part of the trade deficit between the U.S and China may be the result of statistical discrepancies; finally some of the exports from China to the U.S are actually re-exports of American companies that have operations in China.

The view among many policy makers and politicians is that China is benefiting from an artificially depressed currency, making the Chinese exports cheaper, and giving the Chinese an unfair advantage. Although, the value of the Chinese Yuan is artificially maintained, the U.S dollar has also lost considerable value with some of the major currencies of the world. Moreover, it has not been empirically proven that a country's undervalued currency actually improves its trade balance.

The U.S. trade imbalance with China has resulted in a few problems for the American economy including loss of jobs and more than average unemployment rates. The U.S. policy makers are also concerned with the declining value of the dollar against major currencies. In some quarters, there is a belief that it is the huge trade gap with China that is causing the decline in the value of the dollar.

Although, the trade with China has caused manufacturing jobs to be transferred to China, the American companies that have setup operations in China have benefited through cost efficiencies that have improved their world competitiveness. Also, because of the trade with China, American consumers are paying less for goods and services that originate in China. It is not true that the U.S. unemployment has suffered in the past decade; the country's unemployment levels have remained stable for the past 20 years, except during the recession of early 2000. Finally, on the issue of the declining value of the dollar, most evidence indicates that the dollars' decline is partly caused due to the large U.S. budget deficit and partly due to the overall trade imbalance (with all trading partners).

China has become the second largest economy through economic reforms, trade liberalization, and foreign direct investments. These initiatives have helped China achieve phenomenal economic growth rates over the past ten years. Based on current economic data, this trend is expected to continue into the foreseeable future. In analyzing the key economic data, it appears that some of the economic fundamentals are definitely going to help China maintain its growth patterns. At the same time, there are some troubling trends in the economy and internal problems that may affect the growth patterns and derail this economic engine. The internal problems that are posing difficulties for its leaders include inefficiency and loss-making state-owned industries, the debt-ridden financial institutions, corruption, crony capitalism, uneven regional development, environmental degradation, steady fall of the water table especially in the north, rising income inequality, and human rights issues. In addition, China is facing major problems with safety concerns of the goods it exports including contaminated food and unsafe toys. Unless the Chinese authorities tackle these myriad and complex problems its growth might be stunted.

## **II) Introduction**

It is evident that the pace of globalization has exponentially exerted its influence on the world economy since the early 1990's. The world economic order is more dynamic and interlinked than it was ever before. The speed of change is faster and more sweeping than at any time in world history. Many of the developing countries have entered into trade agreements that have seen their economies turnaround. International trade has stimulated and strengthened the economies of Brazil, China, Singapore, South Korea, and Taiwan, just to name a few. According to Ben Bernanke, Chairman of the Federal Reserve Board, the expansion of global trade and finance has many positive benefits for most economies, but he warned about the uneven benefits gained by the people from the economic integration that is taking place (Bernanke 2006).

People's Republic of China (China) is one of the fastest growing economies in the world. During the last ten years it has consistently attained double digit economic growth rates. Between 1997 and 2007 China's average economic growth was an astounding 10%. For the period 1980 to 2006, China's GDP per capita rose from \$300 to \$2,000. This economic growth is fueled by considerable inflows of foreign direct investments that have poured millions of dollars into the manufacturing sector, making China the manufacturing center of the world. Empirical studies have repeatedly shown that both exports and FDI flows have strong and positive effects on economic growth (Chen, Chang, and Zhang, 1995; Pomfret, 1997; and Yao, 2006).

Over a five year period, net FDI flows into China doubled from 38.4 billion dollars in 2000 to 79.1 billion dollars in 2005. Just in the last ten years, China is the beneficiary of FDI flows of over 200 billion dollars. In addition to the FDI flows, China has also benefited from an increase in its exports that has resulted in a current account balance of nearly 180 billion dollars (The US-China Business Council 2006). These surpluses have helped China accumulate foreign reserves in excess of 1.2 trillion dollars. China is the second largest holder of United States long-term debt securities at 677 billion dollars,

surpassed only by Japan which holds about \$827 billion. The growth in the economic sector combined with the tremendous increase in China's exports has led China to be one of the fastest growing economies in the world. China, with a gross domestic product (GDP) of over 10 trillion dollars (PPP) ranks second only to the U.S. in terms size of the economy (<http://www.cia.factbook.org/>).

### III) China – Key Statistics (2006)\*

#### General

With 1.3 billion people China has the highest population in the world accounting for one out of five living persons.

Land area:	9,500,000 Sq. km (3 <sup>rd</sup> largest)
Population:	1.3 billion (annual increase of 0.6%)
Percentage of population living in urban areas:	30.9%
Percentage of population living in rural areas:	69.1%
Average life expectancy:	71.8 years
Literacy rates	90.9%
Male to female ratio	51.4 to 48.53

#### Economic statistics (2006)

China is the third largest industrialized country in the world after the United States and Japan. China became a member of the World Trade Organization in December 2001 and has been a member of the Asia Pacific Economic Cooperative since 1991.

GDP (nominal):	US\$2.68 trillion	(ranked 4 <sup>th</sup> in the world)
GDP (PPP):	US\$10.00 trillion	(ranked 2 <sup>nd</sup> in the world)
GDP per capita (nominal):	US\$2,034	(ranked 105 <sup>th</sup> )
GDP per capita (PPP):	US\$7,593	(ranked 80 <sup>th</sup> )
GDP growth rate:	10.5%	

GDP by sector:	Agriculture	12.46%
	Manufacturing	47.28%
	Services	40.26%
Rate of inflation	1.5%	
Public debt:	22.10% of GDP	
External debt:	30.56% of GDP	
Foreign currency reserves:	1.2 trillion dollars	
Labor force:	798.1 million	
Labor force by occupation:	Agriculture	45%
	Manufacturing	24%



	Service	31%
Unemployment rate		4.2%
Market capitalization of listed companies (as a % of GDP):		34.9%
Phone lines (fixed and mobile per 1000):		570.2
Paved roads (as a % of total):		82.5%

#### Trade statistics

Total trade volume:	US\$2.1 trillion
Current account balance:	US\$180 billion

\* Source: <http://www.cia.factbook.org/>

### **IV) A Brief Economic History of China**

The economic history of China is divided into four time frames – post-war (1945 to 1959), that is the time when the new Chinese communist leaders took control of the country; 1960 to 1975 the politically turbulent years; 1976 to 1989 the start of the modernization process; and 1990 on, the full scale modernization initiatives started by Deng Xiaoping.

#### 1) Post-war era: 1945 – 1959

After the war with Japan ended in 1945, the efforts of the Chinese government were focused on the recovery of the economy from the devastations of the war. Economically, China was beset by skyrocketing inflation and lack of food supply for its masses. When the Chinese Communist party came to power in 1949, the leaders of the party led by Mao Zedong wanted to transform China into a modern, powerful, socialistic nation. To this end, the party leaders initiated policies meant to bring economic stability to the country and put it on its way to being a major economic power in the world.

In an effort to stem the spiraling inflation, the government tightened credit, decreased government spending, unified the monetary system, and nationalized the banking system. In addition, the government undertook massive reconstruction efforts to improve the basic infrastructure. China simply followed the USSR's economic system that was built on industrial growth through socialization. In following the Soviet model, the Chinese

government undertook state ownership of industrial production, formed large collectives to operate the agricultural sector and centralized the economic planning process. These changes brought stability to the Chinese economy and resulted in a 9% increase in national income per year.

## 2) The 1960-1975 Period

A major problem faced by the communist party in managing China's economy was the philosophical differences among the Chinese leaders in their approach to achieving economic stability. On the one hand, party leaders like Mao Zedong and Lin Biao felt that the socialist goals of income equalization and political consciousness should be the driving force in reaching economic stability. On the other hand, party leaders such as Zhou Enlai, Deng Xiaoping, and Liu Shaoqi believed in industrialization and general economic modernization as the means to attain not only economic growth, but also to achieve a successful socialistic order.

For the most part during China's post-war era, the above mentioned policy shifts reflected the alternating emphasis on political and economic goals. These shifts resulted in an uneven economic landscape that had spurts of growth followed by drastic downturns as reflected in GDP growth patterns of that time (Table 1). For example, in 1961 and 1962, the GDP declined by 18.37% and 7.26% respectively from the previous years. Similarly, in 1967 and 1968 China's GDP had negative growth rates of 5.04% and 2.86% respectively. On the other hand, the economy did very well between 1963 and 1966 achieving double digit growth rates\*.

Agricultural production, the main focus of the communist party policy also had an up and down performance. In some years, the country achieved double digit agricultural output as it did during the 60s and 70s, but declined somewhat in 1972 because of poor weather but increased at an average annual rate of 3.8 percent for the period as a whole.

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\* GDP in current dollars is used through-out this paper as it is a better measure for internal comparisons

The economy suffered during the early and mid-1970s (see Table 1) due to political turmoil in China. The radical group later known as the Gang of Four attempted to dominate power, shifting the emphasis from economic initiatives to radical political teachings. The voices of moderate leaders were not allowed during this period. Initiatives by Zhou Enlai and Deng Xiaoping were vehemently attacked in the press and in political campaigns as “poisonous weeds.” Using official news organs, the Gang of Four advocated nonmaterial political incentives which led to disastrous economic results with the annual GDP growth declining to 3%. Between 1975 and 1976 output in both industrial and agricultural sectors had zero growth.

**Table 1**  
**China-Gross Domestic Product (GDP) and GDP Growth Rates 1960-1975**

Year	GDP (current* US\$ 000,000)	GDP Growth (%)
1960	61,377.93	-
1961	50,100.94	(18.37)
1962	46,464.00	(7.26)
1963	50,280.42	8.21
1964	58,613.24	7.03
1965	69,709.15	18.93
1966	75,879.43	8.85
1967	72,057.03	(5.04)
1968	69,993.50	(2.86)
1969	78,718.82	12.47
1970	91,506.21	16.25
1971	98,562.02	7.71
1972	112,159.82	13.80
1973	136,769.88	21.94
1974	142,254.74	4.01
1975	161,162.49	13.29

\* The World Bank compiled data in current dollars only

Source: <http://www.worldbank.org/> June 2007

### 3) The 1976-1989 Period

Until 1976, China followed the socialistic approach to economic development. The focus was on large and socialized collective units that took control of the agricultural sector and industrial development with concentration in capital intensive industries such as steel production. After the death of Mao Zedong and the capture of the Gang of Four, the new leaders of China undertook a major shift in their approach to stimulating the economy. These leaders emphasized economic stability over political philosophy. Throughout this period, the economy went through some moderate gains, but suffered economic

downturns because of political unrest and natural disasters such as earthquakes and droughts (see Table 2). But the economic policies formulated to achieve the stated economic stability were dramatically altered on several occasions in response to major changes in internal politics and international economic developments. Attempts by progressive leaders such as Deng Xiaoping to modernize the economy were met with resistance from political leaders who were interested in Cultural Revolution rather than economic gains.

In 1978, the new party leaders embarked on a program of gradual reform of the Chinese economic system. As China's neighbors such as Japan, South Korea, and Taiwan sustained steady economic growth, the Chinese leaders recognized some of the failures of their socialistic approach and were willing to try a new economic model based on free market system to achieve economic success. The gradual phasing in of the new economic system slowly brought in sustainable economic growth and, as a result, the GDP grew substantially. The initial success in the late 1970s and early 1980s was mainly due to agricultural reforms (Yao, 2000). By the end of 1987 the program had achieved remarkable results, especially in the agricultural sector with unparalleled increases in food supplies. Agricultural production was stimulated through the newly created free farmers' markets that sold their output for profit. The economy was also helped by the large-scale rural industrialization and active reform in the urban industrial sector (Rozelle, 1994).

In the industrial sector, the new government shifted their emphasis from encouraging purely domestic growth to attracting foreign companies and encouraging foreign trade. Foreign trade procedures were greatly eased, allowing individual enterprises and administrative departments outside the Ministry of Foreign Trade (which became the Ministry of Foreign Economic Relations and Trade in 1984) to engage in direct negotiations with foreign firms. Because of these changes, by 1986, the combined value of trade (exports and imports) reached 35% of the China's national income. During the socialistically run economic model, China's combined value of imports and exports had seldom exceeded 10 percent of national income. In 1980 it was 15 percent and in 1984 it was 21 percent.

**Table 2****China – Gross Domestic Product (GDP) and GDP Growth Rate 1976-1989**

Year	GDP (current \$000,000)	GDP Growth (%)	GDP (PPP* \$000,000)
1976	151,627.68	(5.92)	218,651.23
1977	172,349.01	13.76	250,195.47
1978	147,321.13	(14.52)	299,104.75
1979	175,573.91	19.18	348,571.74
1980	188,241.66	7.21	409,887.44
1981	192,952.39	2.50	471,701.90
1982	202,087.79	4.73	545,972.09
1983	227,375.48	12.51	629,427.18
1984	256,107.15	12.64	752,327.91
1985	304,911.55	19.06	880,103.69
1986	295,715.93	(3.02)	978,899.31
1987	268,217.48	(9.30)	1,122,614.91
1988	307,166.64	14.52	1,292,328.87
1989	342,291.51	11.44	1,396,362.00

\* The World Bank started the Purchasing Power Parity (PPP) method of reporting GDP in 1975

Source: <http://www.worldbank.org/> June 2007

#### 4) The 1990 to 2006 Period

The changes instituted by the Chinese leaders to modernize the economy have as of now resulted in China's emergence as one of the world's super powers. The gradual shift that was initiated during the 1970s from a centrally planned economy which ignored market forces and was closed to international trade seems to have gone into an overdrive during the last two decades.

The specific economic policies that are now in place include liberalization of prices, fiscal decentralization, the rapid growth of the private (non-state) sector, establishment of a diversified banking system, the development of the stock market, and the opening of the country for foreign trade and investments. The change of the State policy on international trade played an important role in creating a good external environment. China's trade policy changed from import-substitution and self-reliance before economic reforms to export promotion and openness (Groves, Hong, McMillan, and Naughton, 1994; and Yao and Zongyi, 2001). The restructuring that focused on free market driven economy has resulted in double digit growth for China. For the first time in China's post-war era, China has never had a single year in which its economy had negative growth (see Table 3). In fact, according to the World Bank, in terms of constant 2000 dollars, China's GDP

growth between 1990 and 2006 averaged 10.00% annually (Exhibit 1). In current dollar terms, the average growth of China's GDP for the same years was 13.00%.

The reforms of the past two decades have resulted in a China that is the economic envy of many developed and developing nations. It is the second largest economy in terms of GDP (PPP) in the world with an increasing middle class and a new set of entrepreneurs who are involved in banking, insurance, manufacturing, and real estate. China's rapid economic growth is mostly fueled by exports. After years of accumulating trade surpluses that reached 1.2 trillion dollars in foreign reserves, the Chinese government has started to use some of these reserves to buy foreign assets including making a bid to buy ConocoPhillips, an American integrated energy company. Recently, the Chinese bought made an offer to buy a stake in the Blackstone Group, an American investment firm that is involved in private equity, real estate etc.

**Table 3**

**China – Gross Domestic Product (GDP) and GDP Growth Rate 1990-2006**

Year	GDP (current \$000,000)	GDP Growth (%)	GDP (PPP* \$000,000)
1990	354,644.36	3.61	1,505,484.87
1991	376,616.75	6.20	1,701,463.07
1992	418,180.56	11.04	1,987,814.55
1993	440,502.16	5.34	2,318,171.97
1994	559,225.90	26.95	2,677,148.20
1995	728,010.78	30.18	3,029,501.11
1996	856,089.56	17.59	3,395,892.45
1997	952,652.66	11.28	3,773,709.25
1998	1,019,458.62	7.01	4,113,256.06
1999	1,083,277.90	6.26	4,489,814.68
2000	1,198,480.29	10.63	4,973,051.92
2001	1,324,804.87	10.54	5,515,549.53
2002	1,453,831.36	9.74	6,122,773.34
2003	1,640,961.67	12.87	6,872,124.60
2004	1,931,710.30	17.72	7,764,745.55
2005	2,234,297.09	15.66	8,814,859.84
2006	2,680,000.00	19.95	10,000,000.00
		Average = 13.00	

The World Bank started the Purchasing Power Parity (PPP) method of reporting GDP in 1975

Source: <http://www.worldbank.org/> June 2007

**V) Overview of Trade between the United States and China**

During the 1970's, China as a nation was mostly closed to international trade. It accounted for less than 1 percent of world trade. During the same period, China's trade

with the U.S. was in the form of sales of aircraft and wood products. Today, China is the third largest trading partner of the United States. Between 1985 and 2006, China's exports to the U.S. grew from just under 4 billion dollars to 287 billion dollars (Exhibit 2). In 2006, only Canada and Mexico were ahead of China with trade volumes of 534 and 332 billion dollars, respectively (Exhibit 3 and 4). Although, Canada and Mexico are the largest trading partners of the U.S., the collective trade deficit between the U.S. and these two trading partners is substantially lower compared to the trade deficit with China. In 2006, the U.S. trade deficit with Canada was 73 billion dollars and with Mexico it was 64 billion dollars, but its trade deficit with China was 232 billion dollars, about a third of the total U.S. trade deficit with all its trading partners. In fact, the total U.S. trade deficit with China is nearly twice the trade deficit with Canada and Mexico combined. Just in the first quarter of 2007, the total volume of trade between the U.S. and China was over 85 billion dollars (Table 5); at this rate, the total volume of trade between the two countries is expected to be over 300 billion dollars.

Since 2000, the total trade in goods (exports and imports) between the two countries has increased by 300% from 116 billion dollars in 2000 to 343 billion dollars in 2006. What is alarming to most United States policy makers is the trend in the direction of trade between the two countries. While the United States exports to China are rising, imports from China are rising even at a faster rate (Odessey, 2005). In the first quarter of 2007, U.S. exported over 14 billion dollars worth of goods to China; on the other hand, the U.S. imported 71 billion dollars worth of goods, creating a first quarter deficit of nearly 60 billion dollars.

The trade deficit between the U.S. and China is the one statistic that gets the most attention of politicians, union leaders, business executives and the public. The bilateral trade deficit with China has increased almost without pause for nearly 22 years. In 1985, the total volume of trade between the two countries was just over 7 billion dollars and the U.S trade deficit stood at 6 million dollars, a negligible amount compared to the expected deficit of over 250 billion dollars by the end of 2007.

Although, China enjoys a trade surplus of nearly 250 billion dollars with the U.S., China's overall total (with all trading partners) trade surplus is closer to 105 billion dollars. This is the result of China's deficits with other trading partners such as Japan, South Korea, Taiwan, the Netherlands, and U.K. For example in 2005, China exported 84 billion dollars worth of goods to Japan, but at the same time its imports from Japan exceeded 100 billion dollars. In the last decade, China has become a major player in global trade and is definitely one of the key economic forces that have gained tremendous influence in the new world order. As a manufacturing center and recipient of large FDI inflows, China's role in the global economy is definitely extensive.

Recently, China has demonstrated its influence in the world economy by investing in developing countries in Asia and Africa. In Africa, China is investing heavily in infrastructure projects that benefit the local country and at the same time allow China to tap into some of the natural resources including oil, minerals, and other raw materials.

The discussion of the volume, direction, and composition of trade between the United States and China are divided into two parts – during the early years, from 1985 to 1995, when the volumes were small; and the current period, from 1996 to 2006 when the trade between the two countries peaked.

## **VI) Volume, Direction and Composition of Trade between the U.S. and China: 1985-1995**

The emergence of China as a major force in international trade has had far reaching economic impact on the global market place and specifically on the U.S. The economies of the U.S. and China are now inextricably linked together. In the past five years, U.S. and China have accounted for roughly one-half of the economic growth of the world.

The bilateral trade agreement signed in July 1979 between the United States and China has had far reaching results for both countries. In 1985, the total trade between the U.S. and China was just over 7 billion dollars. U.S exports to China in 1985 were 3.8 billion dollars and the U.S. imports from China were also 3.8 billion dollars. By 1990, the total



trade between the two countries had reached 19 billion dollars. That is, the total volume of trade had doubled in five years with an average yearly increase of over 20%. The two key developments that helped boost trade between the U.S and China was the opening up of the Chinese markets and the reciprocal inflow of goods from China. By 1995 the total volume of trade between the two countries had reached 57 billion dollars, a seven-fold increase over its 1985 volume.

In 1985, the U.S trade deficit with China was roughly 6 million dollars. Between 1986 and 1995, there is a dramatic shift in the volume and direction of trade between the two countries. During this period, while the U.S exports increased by an average of 15.1% per year, the U.S. imports from China increased by 45%. The U.S trade deficit with China was 1.6 billion dollars in 1986, but by 1995 it had reached nearly 34 billion dollars (Table 4). Figure 1 shows more clearly the increases in China's exports compared to the slower rate of United States' imports from China. The growing trade between the U.S. and China has become increasingly central to the overall economies of both countries.

In 1980 China was United State's 24<sup>th</sup> largest trading partner, but by 1995 it had become the 5<sup>th</sup> largest trading partner of the U.S. In the early days of this trade agreement, the two countries were at the opposite end of the economic spectrum. The United state was the largest economy in the world, a fully developed country that was an industrial giant. On the other hand, China was a developing nation with low labor costs, entrenched in agriculture, and involved in extraction of basic materials. The economic forces of these two countries seemed to be complimentary and, hence, a platform for mutually beneficial trade emerged. What most of the policy makers and politicians did not expect was that this complimentarity would eventually favor more inflow of goods into the U.S than exports from the U.S. to China.

**Table 4**  
**Trade between US and China 1985-1995**

<u>Year</u>	<u>US Exports</u>		<u>US Imports</u>		<u>Trade Balance</u>
	(\$000,000)	<u>% Change</u>	(\$000,000)	<u>% Change</u>	(\$000,000)
1985	3,855.70		3,861.70		-6.0
1986	3,106.30	-1.94	4,771.00	23.57	-1,664.70
1987	3,497.30	12.59	6,293.60	31.90	-2,796.30
1988	5,021.60	43.58	8,510.00	35.23	3,489.30
1989	5,755.40	14.62	11,989.70	40.88	-6,234.30
1990	4,806.40	-16.49	15,237.40	27.09	-10,431.00
1991	6,278.20	30.62	18,969.20	24.49	-12,691.00
1992	7,418.50	18.16	25,727.50	35.63	-18,309.00
1993	8,762.90	18.12	31,539.90	22.59	-22,777.00
1994	9,261.70	5.92	38,786.80	22.98	-29,505.10
1995	11,753.70	26.63	45,543.20	17.42	-33,789.50
Average					
%		15.10		28.20	
Change					

Total may not add up due to rounding

Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

It is indicative of the minimal importance placed on the Sino-American trade by the U.S. authorities that the product categories traded between the U.S. and China in early years was not reported by the United States Census Bureau. Since the trade deficit was not significant, the impact of the type of goods traded was considered less critical.

## **VII) Volume, Direction and Composition of Trade between the U.S. and China:**

### **1996-2006**

The second half of the comparison period of trade between the U.S and China has seen a more dramatic growth in volume and a significant rise in United State's deficit with China. After China's entry into WTO in 2001, U.S exports to China have more than doubled and are growing faster than any major U.S export market. In terms of the volume of trade, the 57 billion dollars in total trade between the two countries in 1995, had doubled to 116 billion dollars by 2000, and the volume had risen by 6 times to over 342 billion dollars by 2006. This increase in volume has been by far the greatest reported for any trading partners of the U.S at any time.

In 1995, the U.S. trade deficit with China was 33.7 billion dollars, but by 1999, the deficit had doubled to over 68 billion dollars; by 2003 it had reached four times that of 1995 to 124 billion dollars; and by 2006 the trade deficit between the U.S. and China had reached a staggering 232 billion dollars, almost seven times its size in 1995. Since 2001, U.S exports to China have grown faster than they have to the rest of the world. Similar to the 1985 to 1995 time frame, the rise in exports from China to the U.S had grown at a much faster rate than the U.S exports to China. From 1996 to 2006, the U.S exports to China grew on average by 14.49%, whereas the Chinese exports to the U.S. grew by 22.9% (Table 5). Figure 2 shows these dramatic changes in greater detail.

The United States is the largest trading partner of China accounting for nearly 22% of that country's total exports. Exports to Japan, the second largest trading partner for China are only 11% of the total, that is, just half the exports to the U.S. Meanwhile, it is estimated that the exports from China have helped American consumers save nearly 600 billion dollars over the past decade (U.S-China Business Council 2006).

**Table 5**  
**Trade between US and China 1996-2006**

<u>Year</u>	<u>US Exports</u>		<u>US Imports</u>		<u>Trade Balance</u>
	(\$000,000)	<u>% Change</u>	(\$000,000)	<u>% Change</u>	
1996	11,992.60	13.11	51,512.80	13.11	-39,520.20
1997	12,862.20	7.25	62,557.70	21.44	-49,695.50
1998	14,241.20	10.72	71,168.60	13.76	-56,927.40
1999	13,111.10	-7.94	81,788.20	14.92	-68,677.10
2000	16,185.20	23.45	100,018.20	22.29	-83,833.00
2001	19,182.30	18.52	102,278.40	2.26	-83,096.10
2002	22,127.70	15.35	125,192.60	22.4	-103,064.90
2003	28,367.90	28.20	152,436.10	21.76	-124,068.20
2004	34,744.10	22.48	196,682.00	29.03	-161,937.90
2005	41,925.30	20.67	243,470.10	23.79	-201,544.80
2006	55,224.20	31.72	287,772.80	18.20	-232,548.60
1stqtr.07	14,474.20		71,425.00		-56,950.80
Average % Change		14.49		22.95	

Total may not add up due to rounding  
Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

A troubling trend in the trade between U.S. and China is the type of goods that are traded between the two countries. Typically, industrialized countries export finished goods with

higher value-added component to developing countries and import lower valued-added goods, such as raw materials and parts & components, from developing countries. Interestingly, the United States imports more value-added goods from China, whereas its exports to China are in raw materials and agricultural products that do not have the same value-added element as finished or manufactured goods have.

Between 1996 and 2006 nearly 95% of all China's exports to the U.S have been in manufactured goods (Table 6 and Figure 3). These goods include various manufactured goods such as, aerospace components, computers, and electronic goods; machinery & equipment; and miscellaneous manufactured items. In 2006, China's exports (in value) to the U.S in machinery & equipment were more than 136 billion dollars, accounting for nearly 30 % of all China's exports to the U.S. (Table 6 & 7 and Figure 3 & 4). Another major product category of exports from China to the U.S. that has been steadily rising is textiles and apparel. Between 2004 and 2005, textile and apparel exports from China grew by 56.8% and between 2005 and 2006 they grew by 25% (Table 6). These figures are significantly higher than in previous years. This rise in exports of textiles and apparel from China might be due to the expiration of global quotas that ended in January 1, 2005. Exports from China to the U.S. include food and live animals; beverage and tobacco; crude materials, minerals, oils, fats, and waxes; chemicals; manufactured goods; machinery and equipment; and miscellaneous manufactured goods.

**Table 6**  
**US Imports from China – Major Product Categories 1996-2007**  
**(\$000,000 – C.I.F. value\*)**

<u>Products</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>1<sup>st</sup>.qtr.2007</u>
Food & live animals	716.94	787.77	798.71	951.03	1,129.06	1,250.69	1,631.60	2,191.68	2,576.60	3,039.47	3,893.07	1,205.40
Beverage & tobacco	19.17	20.63	25.90	21.54	37.11	44.72	51.75	39.24	49.49	36.22	43.81	12.22
Crude materials	427.53	604.88	590.20	571.92	695.68	670.22	706.96	866.38	1,183.00	1,522.68	1,692.84	411.70
Mineral fluids	566.27	630.87	443.28	281.22	806.03	431.34	457.19	498.65	1,119.42	1,083.35	1,264.00	182.10
Oils, fats, & waxes	7.93	8.87	9.24	6.32	8.23	6.20	6.68	9.60	12.60	16.54	23.70	6.97
Chemicals	1,096.89	1,377.07	1,529.94	1,797.80	1,959.57	2,224.27	2,603.97	3,282.22	4,081.00	5,620.20	6,761.66	1,779.40
Manufactured goods	4,920.03	6,192.60	7,521.03	9,183.66	11,417.14	11,919.59	14,685.35	18,012.06	24,362.27	31,248.49	40,134.23	10,067.00
Machinery & equipment	14,497.87	18,158.79	22,429.50	27,740.10	36,709.59	36,537.32	48,241.35	63,499.71	90,094.51	113,361.30	136,014.92	33,456.46
Misc. Mfg. articles	31,717.21	37,549.11	41,002.35	46,289.62	53,707.39	55,066.34	63,684.83	73,031.31	84,672.48	101,006.32	112,457.48	27,551.97
Unclassified	439.07	541.02	758.99	943.90	1,150.75	1,240.97	1,420.74	1,824.44	2,374.58	2,903.35	3,501.97	905.33
<b>Total</b>	<b>54,408.91</b>	<b>65,831.62</b>	<b>75,109.14</b>	<b>87,788.10</b>	<b>107,620.50</b>	<b>109,391.64</b>	<b>133,490.42</b>	<b>163,255.30</b>	<b>210,525.92</b>	<b>259,837.91</b>	<b>305,787.67</b>	<b>75,578.55</b>

- Total may not add up due to rounding
- C.I.F. = Cost, Insurance, and freight (Represents the landed value of the merchandise at the first port of arrival in the U.S.)
- Source: U.S. Census Bureau International Trade Statistics

Among the major product categories exported from China, manufactured goods and machinery and equipment account for about 94% of all exports (Table 7). For the past ten years, the share of the machinery and equipment exports of the total exports has been on the rise. In 1996, machinery and equipment accounted for 27% of all exports, and in 2006 this figure had grown to 45%.

China exports some high technology items to the U.S. and other countries that are based on technology developed by the industrialized countries but are made in China and then exported back to the same countries from where the technology originated. These include information and communication technology (ICT), such as mobile phones, laptops, and digital cameras. Currently, China is the world's top exporter of information technology goods surpassing the U.S. In 2006, China supplied 27% of ICT products to the U.S.

**Table 7**  
**US Imports from China – Manufactured Goods and Machinery & Equipment 1996-2007**  
**(\$000,000 – C.I.F. value\*)**

<b>Products</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>1<sup>st</sup>.qtr.2007</b>
Manufactured goods	4,920.03	6,192.60	7,521.03	9,183.66	11,417.14	11,919.59	14,685.35	18,012.06	24,362.27	31,248.49	40,134.23	10,067.00
Machinery & equipment	14,497.87	18,158.79	22,429.50	27,740.10	36,709.59	36,537.32	48,241.35	63,499.71	90,094.51	113,361.30	136,014.92	33,456.46
Misc. Mfg. articles	31,717.21	37,549.11	41,002.35	46,289.62	53,707.39	55,066.34	63,684.83	73,031.31	84,672.48	101,006.32	112,457.48	27,551.97
Manufactured Items Total	51,134.00	61899	70,954.00	83,212.00	101,833.00	103,694.00	126,610.00	154,542.00	199,128.00	245,615.00	288,605.00	
Mfg items (% of all exports)	94	94	95	95	95	95	95	95	95	95	94	
Mac. & Eq. (% of all exports)	27	28	30	32	34	34	36	39	43	44	45	
Total of all exports	54,408.91	65,831.62	75,109.14	87,788.10	107,620.50	109,391.64	133,490.42	163,255.30	210,525.92	259,837.91	305,787.67	75,578.55

- Total may not add up due to rounding
- C.I.F. = Cost, Insurance, and freight (Represents the landed value of the merchandise at the first port of arrival in the U.S.)
- Source: U.S. Census Bureau International Trade Statistics

Tables 6 and 7 above presented the U.S. imports from China. Table 8 below presents the exports of the U.S. to China. The major United States exports to China are machinery & equipment, chemicals, and crude material (Figure 5). Between 1996 and 2006, these product categories accounted for approximately 77 percent of all exports to China. Of the three major items exported to China, machinery & equipment had the lion's share of its exports, ranging from 43 percent to 55 percent. Although, the proportion of U.S exports in machinery & equipment is high, in absolute terms it is small compared to the exports

of the same items from China to the U.S. For example, in 1996, U.S exports of machinery & equipment to China were worth 5.6 billion dollars. At the same time, U.S. imports of machinery & equipment from China totaled 14.5 billion dollars. By the year 2006, the Chinese exports of machinery & equipment had surged to 136 billion dollars, an increase of nearly ten times, whereas the U.S exports of machinery & equipment to China only equaled 25 billion dollars in 2006.

After machinery & equipment, the second highest export of the U.S. is in crude materials. In the last four years, crude materials have accounted for nearly 25 percent of all U.S exports to China. The third highest export item of the U.S. to China is chemicals. In the late 1990s, chemicals had 15 percent share of all exports, but between 2000 and 2006, the share of chemicals as an export item had dropped to around 12%.

**Table 8**  
**US Exports to China – Major Product Categories 1996-2007**  
**(\$000,000 – F.A.S. value\*)**

<u>Products</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>1<sup>st</sup>.qtr.2007</u>
Food & live animals	774.02	399.52	487.15	325.98	472.95	510.78	554.23	810.84	1,321.36	1,124.32	1,430.84	368.12
Beverage & tobacco	3.29	8.73	12.42	10.82	4.93	6.07	6.24	12.48	35.61	15.42	81.8	63.38
Crude materials	1,888.55	1,639.63	1,076.49	1,178.19	2,566.50	3,145.86	3,336.30	6,859.86	8,115.00	9,897.73	13,746.17	3,572.19
Mineral fluids	67.59	231.68	127.23	122.53	59.77	93.45	94.33	133.23	221.45	132.08	205.39	58.48
Oils, fats, & waxes	113.63	169.07	320.55	74.33	20.91	14.16	28.04	102.96	34.98	21.94	72.26	42.71
Chemicals	1,727.30	1,935.29	1,972.95	2,089.32	2,325.37	2,211.23	2,960.04	3,622.25	4,732.21	5,401.96	6,243.34	2,030.22
Manufactured goods	789.62	810.3	858.51	900.52	1,271.89	1,106.52	1,309.74	2,005.40	2,199.80	3,096.02	3,761.77	939.85
Machinery & equipment	5,570.01	6,521.83	8,238.77	7,148.72	8,067.82	10,284.63	11,778.34	12,546.27	15,023.85	18,670.54	25,397.00	6,353.00
Misc. Mfg. articles	885.95	935.62	958.31	1,057.93	1,240.14	1,653.25	1,756.32	2,057.07	2,688.76	3,083.94	3,799.64	923.09
Unclassified	157.96	153.75	205.58	209.33	222.76	208.89	229.11	268.17	348.11	392.65	485.97	123.12
<b>Total</b>	<b>11,997.92</b>	<b>12,805.42</b>	<b>14,257.95</b>	<b>13,117.68</b>	<b>16,253.03</b>	<b>19,234.83</b>	<b>22,052.68</b>	<b>28,418.50</b>	<b>34,721.00</b>	<b>41,836.53</b>	<b>55,224.16</b>	<b>14,474.19</b>

- Total may not add up due to rounding
- F.A.S. = Free alongside ship (Represents the value of the merchandise at the U.S. ports before being shipped to China)
- Source: U.S. Census Bureau International Trade Statistics

### **VIII) Key Reasons for the U. S. Trade Deficit with China**

There are many reasons for the United State’s staggering trade deficit with China. Some are easy to understand and others are more complex. One thing is sure, these trade deficits did not happen overnight. From the start of China’s trade liberalization policies around 1985, the U.S. imports from China have been growing at a much faster rate than U.S exports to China. This trend took an exponential shift in 2001, when China joined the

World Trade Organization (WTO). Some contributing factors to the trade deficit are shifts in the direction of trade, economic fundamentals, structural and macroeconomic issues, and other external factors such as regional economic integrations and the influence of the emerging markets. Below are some of the explanations that might clarify the U.S. trade deficit issues based on the analysis of trade direction, volume, and related research studies. Some of the reasons discussed for the trade imbalance are interrelated to each other. For example, the issue of re-exports, U.S. based company operations in China, and Wal-Mart's supplier links in China are all related to the U.S. FDI flows into China.

#### 1) Economic issues and capital flows

From an economic standpoint, the explanation for the U.S. capital account deficit with China could be easily explained. The United States deficit is the result of a net inflow of capital from the rest of the world. Because of the stable and relatively free domestic U.S. market, the country remains the most popular destination for foreign investments. The United States is forced to seek outside investors as it does not generate enough capital internally. It is a net importer of capital because the U.S. savings rate has declined precipitously. The poor savings rate of the Americans leads to a lack of domestic capital formation to finance all the available investment opportunities within the U.S. economy (Griswold, 1998). The gap between the demand and supply of capital is adequately filled by the inflow of foreign capital. In addition, these inflows also help the U.S. pay for its imports over and above what the country exports.

There is no doubt that a large trade deficit between two trading partners is a cause for concern for the country that has the deficit. In the case of the U.S., a ballooning trade deficit implies that the country is depending on foreign goods to satisfy the needs of its population since the country's own manufacturing base is weak.

From a macroeconomic point of view, the trade gap reflects an expanding economy that has greater demand for goods and services than the domestic supply. The relatively stable

U.S economy and its open market, provides U.S consumers a wide variety of choices at different price levels for most goods and services. On the other hand, the trade gap also reflects some fundamental economic weakness in the U. S. economy, namely a loss of industrial competitiveness. In all the discussion of the trade gap with China, it is time to recognize that on the way, the U.S has definitely lost some of its industrial competitiveness to other emerging economies, including China. This loss in industrial competitiveness has led to a reversal of the direction in the flow of goods; hence, as mentioned earlier, the U.S is a net importer in goods such as electronics, computers, and telecommunication equipment. These developments have further eroded the competitiveness of U.S. companies and have resulted in loss of potential exports that has further pushed higher the U.S. trade deficits (Griswold, 1998).

The ever increasing costs associated with U.S. domestic manufacturing and the continued quality improvements made by countries such as Japan, South Korea and Taiwan are creating a depressed demand for American made products. In areas such as appliances, automobiles, electronics, steel, and other manufactured goods these countries have taken roots in the U.S. market and are slowly taking market shares away from U.S. companies. In products such as radios and television sets there is not a single domestic U.S. manufacturer left.

2) The U.S. trade gap is not new

The general consensus among China experts is that, the trade deficit with China is not the only reason for the overall U.S. imbalance in international trade. The United States has had negative current account balances even before the Chinese entered the picture. In 1985, the United States deficit with Japan was 46 billion dollars, with Canada the deficit was 21 billion dollars, with Germany it was 11 billion dollars, and with Mexico it was 5 billion dollars. During this period, the trade deficit with China was only 6 million dollars. By 1995, the U.S trade deficit with China had jumped to 33 billion dollars behind only Japan's, which was at 59 billion dollars. In 1995, besides Japan and China, the United



States had trade deficits of 17 billion dollars with Canada, of 15 billion dollars with Mexico (Exhibits 3 & 4), and of 14 billion dollars with Germany.

While the trade deficit with China has been rising dramatically in absolute terms, China's share of the US overall current account deficit has remained fairly constant, about 20 percent, for more than a decade. Between 1985 and 1995, U.S. exports to China rose by an average of 15.10 percent, whereas, U.S. imports from China rose by 28.20 percent. Hence, there were early signs that the trade deficit between the two countries was already going mostly in favor of the Chinese.

Although, there is concern in the U.S. about the ever increasing trade deficit with China, if applied in a broader context, it is nearly not as critical as it seems (Gresser, 2005). Definitely, there has been a tremendous increase in imports from China into the U.S. But if China's trade imbalance is viewed in the context of the Asian region, the imports from this region is not growing any faster than the other regions from which the U.S. imports goods. In fact, between 1992 and 2006, the East Asian (China, Hong Kong, Japan, South Korea, Taiwan, and 10 countries of the ASEAN) portion of the total U.S. trade deficit as a percentage of the total has diminished in comparison to the rest of the world from 108% in 1992 to 48% in 2006, (Table 9 and Figure 6), -(U.S. International Trade Commission).

**Table 9**  
**United States Trade Deficits by Region 1992 – 2006 (\$000,000,000)**

Region	1992	1996	2000	2002	2003	2004	2005	2006
World	85	168	436	470.3	535.7	653.1	766.6	818
East Asia	92	114	232	233.2	249	304.8	355.1	393.4
East Asia as % of the world	108	68	53	49.3	46.5	46.7	46.3	48

Total may not add up due to rounding  
Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

Hence, the concern about the trade gap between the U.S. and China should by itself not be a major economic issue for the U.S. In the past, the United States imported goods and services from many East Asian countries. Since 1992, it appears that the U.S. is importing from China some of the goods and services previously imported from East Asian countries. This reflects a shift in the direction of trade between the

U.S. and the East Asian countries and not a new increased volume of trade that accounts for the trade gap.

### 3) United State's new trading partners

The increase in China's share of US imports from 2000 through 2004 was offset by declining shares of other East Asian exporters, reflecting a profound shift in production patterns by Asian and other multinational firms operating in the region. The United States continues to import goods and services not only from China, but also from many other countries and regions of the world. If the trade imbalance issue is analyzed on a region by region basis some interesting trends are developing. The share of the U.S imports from Europe, Canada, and Mexico has not grown significantly. Similarly, imports from Asia as a whole have remained steady. In spite of the rapid growth in its exports, China's overall current account surplus in 2005 is still smaller than those of Japan and Germany, while its bilateral trade surplus with the U.S. is smaller than that of the Middle East/North Africa region. Imports from Africa, Latin America, and the Middle East are growing rapidly (Table 10 and Figure 7). Most of the imports from these three regions are in oil. If the U.S policy makers are alarmed about the trade gap between the U.S. and China, experts believe that they should be equally concerned about the trade imbalance between the U.S and many of the oil producing countries of Africa, Latin America, and the Middle East. However, the growing size of U.S. imports from China is worrisome from a financial dependency standpoint. The bulk of the U.S.-China trade deficit is financed by China's purchase of U.S. securities and holding U.S. dollar reserves. Should China decide to restructure its portfolio of financial assets including currencies away from U.S. dollar denominated assets, the U.S. could face the serious possibility of a dramatic rise in interest rates and decline in the value of the dollar.

The United State's undue dependence on oil as a source of energy seems to place the country in a very precarious position. There appears to be no immediate solution for the oil dependency and until this problem is solved, the U.S will always be an

importing country with ever rising overall trade imbalance. Therefore, the U.S trade imbalance with the oil producing countries will continue to grow at a much faster rate than the trade gap with China. Moreover, the trade gap with China appears to be a shift in the direction of trade, implying if the trade gap was not with China, it would probably be with other East Asian countries. Whereas, the rising trade gap with Africa, Latin America, and Middle East is new and this adds to the overall U.S trade deficit with its trading partners.

**Table 10**  
**US Trade Surplus/deficit with Select Regions 1997 -2006 (\$000,000,000)**

Region/Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
OPEC	-8.5	-8.8	-21.8	-48	-39.7	34.4	51.1	71.8	92.9	105.3
Africa	-8.5	-4.7	-7.1	-16.7	-13.3	-11.4	-21.4	-32.3	-49.7	-61.4
Nigeria	-5.6	-3.4	-3.8	-9.8	-7.8	-4.9	-9.4	-14.7	-22.6	-25.6
Saudi Arabia	-1	-4.3	-0.3	-8.1	-7.3	-8.4	-13.5	-15.7	-20.4	-24
Venezuela	-6.9	-3	-6	-13.1	-9.6	-10.7	-14.3	-20.4	-27.6	-28.1

Total may not add up due to rounding  
Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

The trade gap between the U.S and OPEC countries has risen from around 8 billion dollars in 1997 to over 105 billion dollars by 2006, nearly a ten fold increase in trade deficit, one of the highest percentage increases in trade deficit for the United States in the past decade. This increase surpasses even the increases in trade deficit with China (4 times) during the same time period. Among the OPEC group countries, Nigeria (Africa), Saudi Arabia (Middle East), and Venezuela (Latin America) are the countries with which the trade imbalance seems to be most pronounced. For example, the trade gap between the U.S and Saudi Arabia was only 1 billion dollars in 1997, but it had reached 24 billion dollars by 2006.

#### 4) Statistical discrepancies

Part of the trade deficit between the U.S and China may be the result of comparing apples to oranges or statistical discrepancies. The two fundamental discrepancies in the reported trade statistics between the U.S. with China are:

- Inclusion of insurance and freight (CIF) on U.S imports from China and exclusion of such in the U.S exports to China, reported as free on board (FOB).

In 2006, the United States reported a trade deficit of 232.5 billion dollars with China, while according to statistics compiled by China its trade surplus with the U.S. was around 125 billion dollars (Fuller, 2006). The difference of 107 billion dollars was attributed to the way these two countries calculated the value of the exports and imports.

The United States exports are calculated on the basis of free on board (FOB); therefore, they are understated, since the costs of freight and insurance are not added to the exported value. On the other hand, Chinese exports are based on cost insurance and freight (CIF), and, hence, the value of exports to the U.S. is overstated in comparison to the U.S. exports. If this discrepancy was corrected using a standard average cost of insurance and freight of 10 to 15% of the FOB value, the revised value of China's exports in 2006 would be less by 28.77 to 43.05 billion dollars. This recalculation would decrease the trade gap between the U.S. and China from 232 billion dollars to between 204 and 189 billion dollars.

- Inclusion versus non-inclusion of exports and imports to and from Hong Kong. The second issue of contention is how the trade with Hong Kong is treated. The U.S treats exports to Hong Kong as a separate exporting country. The Chinese would like to consider the trade with Hong Kong as part of the overall trade with China. If the Chinese arguments were considered, the revised trade between the U.S and China would be as shown in Table 11. As can be seen from the table, after discounting for the Hong Kong directed exports and imports, the U.S. trade gap with China in 2006 would be reduced by about 10 billion dollars.

**Table 11**  
**Trade between US and Hong Kong 1995-2006 (\$000,000)**

Year	U.S exports to Hong Kong	U.S imports from Hong Kong	Trade balance US – Hong Kong	Change in US Trade balance with China Including Hong Kong
1995	14,231.50	10,291.30	3,940.20	-33,789.50 + 3,940.20 = 29,849.30
1996	13,966.20	9,864.50	4,101.70	-39,520.20 + 4,101.70 = 35,418.50
1997	15,117.20	10,287.90	4,829.30	-49,695.50 + 4,829.30 = 44,866.20
1998	12,925.40	10,538.20	2,387.20	-56,927.40 + 2,387.20 = 54,540.20
1999	12,651.90	10,528.00	2,123.90	-68,677.10 + 2,123.90 = 66,553.20
2000	14,582.00	11,449.00	3,133.00	-83,833.00 + 3,133.00 = 80,700.00
2001	14,027.50	9,646.10	4,381.40	-83,096.10 + 4,381.40 = 78,714.70
2002	12,594.30	9,328.10	3,266.20	-103,064.90 + 3,266.20 = 99,798.70
2003	13,520.50	8,851.10	4,669.40	-124,068.20 + 4,669.40 = 119,309.80
2004	15,827.40	9,313.90	6,513.50	-161,937.90 + 6,513.50 = 155,424.40
2005	16,351.00	8,891.70	7,459.30	-201,544.80 + 7,459.30 = 194,085.50
2006	17,778.60	7,942.50	9,836.10	-232,548.60 + 9,836.10 = 222,712.50

Total may not add up due to rounding  
Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

Therefore, the two statistical discrepancies combined would have reduced the U.S trade gap with China by about 38.77 billion dollars to 53.05 billion dollars. That is, the reported 232.5 billion dollars trade gap in 2006 would be between 179.45 and 193.73 billion dollars.

5) U.S. FDI flows into China and the re-exports by U.S companies operating in China.

The growth in Chinese exports to the United States since 2001 is partly the result of an increase in foreign investment into China associated with its WTO entry. Hence, it is not due to any major changes in the treatment of Chinese exports under U.S. trade policy. Moreover, some of the U.S companies, who operate in China, re-export their goods and services back to the United States. Based on a survey by the US-China Business Council, approximately 18% of all American companies operating in China re-export their goods and services back to the U.S.

The ballooning trade deficit is cause for anxiety in the U.S. and a few politicians have recommended regulatory restrains on the flow of goods from China. Most U.S corporations are concerned about the sanctions and other means of regulatory restrictions that the politicians are proposing. For these companies, their operations in China are very

valuable and extremely profitable. Companies such as Ford, GM, Intel, Motorola, Wal-Mart, and others have invested heavily in China, establishing manufacturing plants and setting up distribution channels. In 1990, the total American FDI flows into China were under one billion dollars; by 1995 it had reached close to 8 billion dollars; and in 2004 the total FDI flows exceeded 12 billion dollars (Table 12).

If the politicians prevail and sanctions are imposed, most likely, the American companies will simply find an alternative source for manufacturing. As such, the overall problem of job losses in the U.S. will not be solved, but these jobs will now shift from China to some other country with a relative labor cost advantage. Hence, the sanctions do not solve the fundamental problem of foreign sourcing by American businesses.

American international companies such as Boeing, Intel, Motorola, and Wal-Mart play a critical role in the trade imbalance between the U.S. and China. Through their vast operations in China, these companies remain competitive and are able to supply the global market with many goods and services. Motorola alone has invested over \$ 3 billion in China and is the largest foreign investor in China's electronics industry. It employs 9,000 Chinese and has committed to improve the technological base of the country. Similarly, Intel is building a chip manufacturing facility at Dalian at a cost of \$ 2.5 billion.

Some of the products manufactured by U.S. companies include aircraft parts, microprocessor chips, electronic items, and an array of consumer related goods such as clothing, small appliance, TV's, and other household items. Some of these products are re-exported back to the U.S. The exact figures in re-exports by U.S companies are not available, but the general consensus is that it amounts to billions of dollars. According to UNCTAD's World investment Report, the re-exports by U.S companies operating in China in the recent past are roughly 300 billion dollars. About 18 billion dollars worth of Wal-Mart's inventory comes from China. This purchase is growing at a rate of 20% annually. Therefore, the trade deficit with China is partially accounted by the U.S. companies operating out of China.

**Table 12**  
**US Foreign Direct Investment Flows into China 1979-2004**

Year	Amount	
	Contracted (\$ Billion)	Utilized (\$ Billion)
1979-1989	3.95	1.73
1990	0.358	0.456
1991	0.548	0.323
1992	3.121	0.511
1993	6.813	2.061
1994	6.011	2.491
1995	7.471	3.081
1996	6.921	3.441
1997	4.941	3.241
1998	6.481	3.901
1999	6.021	4.221
2000	8.001	4.381
2001	7.511	4.861
2002	8.201	5.401
2003	10.161	4.201
2004	12.171	3.941
2005	NA*	3.061

\* Source: Chinese Ministry of Commerce (MOFCOM)

\*MOFCOM stopped reporting contracted foreign investment figures in December 2005

\*Beginning in 2005, the number of contracts refers to the number of projects and the contracts value refers to actual investment levels

## 6) The role of Wal-Mart and other major retailers

One of the main attractions of China for the U.S. based companies is the low labor costs. Compared to the U.S, where hourly labor rates in the manufacturing sector could be between US\$ 16.50 and US\$ 28.50 (Bureau of Labor Statistics, 2007), rates for similar jobs in China could be as low as \$2.50 per hour. In fact, in some parts of China such as in Fujian province, the monthly wages for workers in the manufacturing sector are as low as US\$ 53.75 per month, which translates to about 32cents an hour (China Labor Watch 2006). Realizing these cost savings, Wal-Mart, the nation's largest retailer uses nearly 5000 Chinese suppliers – about 80% of its total supply network - to stock the over 1150 stores and over 2070 supercenters in the U.S.

In order to compete in this environment, many of Wal-Mart's U.S. suppliers are also relocating their operations to China to take advantage of the lower labor costs. Therefore, some of the exports from China are actually the result of the relocation of suppliers of some of the leading U.S. businesses. Wal-Mart operates 2700 stores internationally including 60 in China. It employs 1.4 million people, more than GM, Ford, GE, and IBM put together. Because of its size, Wal-Mart is able to dictate the terms, including the price at which it will buy from all its suppliers, many of whom are Chinese businesses. Because manufacturing and labor costs are considerably lower in China compared to the U.S., the Chinese suppliers are able to meet the price quotations of Wal-Mart. On the other hand, the U.S. suppliers are unable to do so and, hence, are not able to compete with Chinese suppliers.

The electronic sector is one of the sectors that have been affected by Wal-Mart's aggressive pricing strategy. Multimedia Technology Holdings limited (TCL) accounts for almost 100% of all electronic sales to Wal-Mart. The company is a leading multimedia electronic manufacturer with a global sales network. Television is the main product manufactured by TCL under three different brand names, TCL, Thomson, and RCA. About 70% of the company's goods are made in China. Hence, Wal-Mart alone through its supplier network and imported goods from China is also contributing to the overall U.S. trade imbalance.

#### 7) The role of the dollar-pegged Chinese currency the Yuan

The view among many U.S. policy makers and politicians is that China is benefiting from an artificially depressed currency, making the Chinese exports cheaper, giving the Chinese an unfair advantage. Although, the Chinese Yuan is artificially maintained, the U.S dollar has also lost considerable value with some of the major currencies of the world, including the Euro, the Japanese Yen, and the U.K. Pound. This devaluation which was supposed to make the U.S. goods cheaper, and hence, turn the tide in terms of deficits, has yet to materialize.



Artificially pegging Yuan to the dollar might be harmful to the United States. Since, there is no opportunity to test this theory; the jury on this issue is still out. But, one can make an educated guess on the effects of the freely floating Yuan on the trade gap by using the U.S. Japan data on Trade as a proxy. Like China, Japan is a major trading partner of the U.S. with a large trade imbalance. Using a regression analysis to explain the U.S-Japan trade deficit for the year's 1990 to 2006 with the exchange rate between the dollar and Yen as the independent variable, it is clear that the variations in the exchange rate do not fully explain the trade imbalance. During this period the average annual fluctuation between the dollar and Yen was -11.4% when the Yen depreciated and +11.5% when the Yen appreciated. The coefficient of determination  $R^2$  for the regression was .263 (Exhibit 8 and Figure 8). Hence, it is not clear if appreciation of Yuan alone will dampen the inflow of goods and services from China.

In a study conducted by the Federal Reserve Board of Governors it was estimated that an appreciation of the Chinese currency by 10 percent would bring in a decrease in U.S. imports from China of 0.5 percent and at the same time, it would reduce U.S. exports to China by 0.1 percent (Marquez and Schindler, 2006). This would have a negligible effect on the overall trade imbalance between the U.S. and China. In fact, since 2002, Chinas' Yuan has appreciated by about 8 percent with no perceptible shift in the trade imbalance between the U.S and China. At this point, it is not clear if the trade gap between the U.S. and China can be solely attributed to the pegged Chinese currency.

#### 8) China's role as a world power

As a result of its latent demand for imported goods triggered by its booming economy, China became one of the main locomotives of global economic growth in the years spanning the recent global recession of 2001-2003. China's import growth over the past 6 years has contributed more than any other country's economic and trade activities to the global growth. China's demand has thus stimulated export

growth among its trading partners, including the U.S. With its influence around the world on the rise, China is becoming an anchor of economic stability around the world and this should be beneficial to the U.S. as it alone does not have to carry the load of being the world's economic engine.

## **IX) Consequences of the Trade between the United States and China**

### **A) Positive benefits**

It is a fact that the United States is running a huge trade deficit with China. Therefore, in some circles, there is a general alarm being sounded about the catastrophic melting down of the U.S economy due to the apparently unmanageable trade deficit. Based on research, it appears that the trade with China has contributed positively to the United States economy. Following are some of the benefits to the U.S. because of its trade with china:

#### 1) Large export market

The underlying reasons for the growth in U.S. exports to China are very simple. With a population of over 1.3 billion, China alone can be a major market for U.S. goods and services. The Chinese market has become more attractive since the opening of the Chinese economy for international trade and it's ever improving economic conditions that provide vast opportunities for U.S. companies ("Chasing Success in China", 2003). Currently there are over 14 million U.S. businesses operating in China. U.S. companies such as Boeing, Ford, GE, GM, Motorola, and TRW have large operations in China. United States exports to China have constituted the fastest growing segment of the U.S. trade in recent years.

China is expected to be one of the largest markets for many products including automobiles, commercial aircraft, and computers. By late 2007, the Chinese automobile market is expected to reach 7 million cars per year, the second largest market after the United States. This is an excellent opportunity for U.S. manufacturers GM and Ford who have struggled to maintain their market shares in

the domestic market. In 2006, GM sold over 876, 000 cars in China which was 32 percent above the 2005 figures and Ford sold nearly 170, 000 cars that were 87 percent over the previous year (<http://www.washingtonpost.com> June 2007).

According to U.S. Commercial Services, a unit of the U.S Department of Commerce, China will have the second largest airline industry in the world and will need about 1,790 commercial aircraft, worth over 83 billion dollars over the next ten years (“Industry Overview: Aerospace and Aircraft”, 2007). This is an excellent opportunity for Boeing as one of the principal aircraft manufacturers in the world. In fact, last year Boeing signed a sales agreement with the Chinese government to deliver 80 Boeing 737 commercial aircraft. Similarly, China will be the second largest market for personal computers and it already has the largest mobile network in the world with over 432 million cellular phone users.

## 2) Outsourcing opportunities for U.S. companies

Many of the U.S. companies have tapped into the vast inexpensive labor pool found in China. With a labor force of 700 million, U.S. companies have setup both wholly owned subsidiaries and joint venture operations to take advantage of the local market as well as to make use of the abundant labor pool to reduce costs. Foreign direct investments by the U.S. and other countries have provided job opportunities to the Chinese that have resulted in improved economic conditions for many of the Chinese workers. The World Trade Organization estimates that about 400 million Chinese have been lifted out of poverty by the increase in FDI flows and international trade.

In the United States, the business relations with China have been often sighted for the outsourcing of manufacturing jobs creating unemployment in the domestic manufacturing sector. As a competitive measure, the lower wage rates in China combined with lower cost of providing medical and pension benefits has forced U.S. companies to setup operations in China. This shift in operations to China has made the U.S. companies more productive, efficient and strengthened their competitiveness.

### 3) Benefits to the U.S. consumers

Because of the imports from China it is estimated that American consumers have saved over 600 billion dollars over the last 10 years (Britton and Mark, 2006). In fact, the lower priced imports that are flooding the U.S. market may also contribute to the low inflation rate observed in the economy. Many large retailers, like Wal-Mart, are using more and more Chinese suppliers to provide American consumers with goods as varied as floor mats to television sets. The effect of the outsourcing to China by Wal-Mart and other U.S. companies is the reduction in operating costs that are then passed on to the U.S. consumer.

### 4) Economic benefits to the United States

Trading with China has definitely contributed positively to the U.S. economy. From expected improvements in GDP growth rates, reduced prices for consumers, to potential increase in the disposable income of U.S. households (Britton and Mark, 2006). These projections and others are based on economic forecasts and simulations conducted by various research groups including the China Business Forum (CBF). A few U.S. policy makers and some think tank groups such as the Economic Policy Institute (EPI) have questioned these projections of the China Business Forum. But the projections of CBF are made by two leading researchers in the field and they have used proven economic forecasting tools. The dire predictions of EPI are definitely valid in the area of job losses and this will be highlighted in the section dealing with the negative effects of the trade with China.

Studies conducted by Oxford Economics and the Signal group (Britton and Mark, 2006), two leading providers of economic forecasting and analysis for the China Business Forum, show that the long-term benefits to the U.S. trade with China are substantial and likely to continue for many years (Britton and Mark, Sr. 2006). The results of these projections, confirm some of the general findings by other researchers

(Amiti and Wei, 2005) and also what has been observed in this study. Some of the specific findings of the China Business Forum study are:

- By 2010, U.S. GDP will be 0.7% higher as a result of increased trade and investment with China since 2001. The U.S. GDP rose at an average of 3.1 percent between 2002 and 2006, at the same rate as that of the previous 20 years. In fact, if the high growth rates achieved during the tech boom of the mid 90s were excluded, the GDP growth rate since 2002 (after China's entry into the WTO), would be higher than the previous two decades (Exhibit 7).
- United States prices will be 0.8 percent lower by 2010 as a result of increased trade and investment with China since 2001.
- Together, the above two outcomes are expected to result in an increase of around \$1,000 in real disposable income per household per year. That is projected to be about 1.9% of median or 1.5% of average family income in 2010 (according to the US Census Bureau, median family income in the U.S. was \$48,201 in 2006).
- Overall output per worker across the U.S. economy will increase by 0.7% by 2010; and annual growth in US manufacturing productivity will increase by 0.3% per year by 2010 as a result of increased trade with China. The higher productivity is the result of two effects: a) increased competition, which causes the least productive manufacturing firms to close or to increase their productivity to compete with imports from China; and b) price effects, which allow US firms that source some of these inputs from China (or other countries) to benefit from lower costs.
- The recent expansion of trade and investment with China is contributing to a decade-long shift in the structure of US employment away from manufacturing and toward services. United States' loss of manufacturing employment by 2010 will reach about 500,000 jobs, equivalent to about 0.3% of the total US civilian labor force, but this job loss will be offset by an equivalent of 500,000 job increase in US service sector industries, such as distribution and financial services. In fact, the U.S unemployment rate for the last 27 years (1980-2006) has remained between 9.7 percent in 1982 and 4.1 percent in 1999 (Exhibit 6). The

average annual unemployment rate during the peak trading imbalance with China has remained at a moderate rate of 5 percent per year.

Similarly, in a study based on U.S. and U.K. statistics, results show that extensive trade and outsourcing have not led to employment losses in manufacturing or in services (Amiti and Wei, 2005).

#### 5) Benefits for U.S. companies

- Trade with China has been an essential stepping stone for U.S. companies to get a foothold in the vast Chinese market. China's WTO mandated market openings have clearly benefited U.S. companies. Many U.S. companies are successful in the Chinese market and are on the verge of expanding their operations including GM, Intel, and Motorola. Many of these companies are bullish on the prospect of doing well in China. By shifting their operations to China, the U.S. companies have improved their cost efficiencies and, hence, become more competitive in world markets. The improved competitiveness helps U.S. companies to maintain its U.S. operational base and sustain employment in the U.S. The opposite situation would be disastrous for the U.S. companies, and in turn it might result in job losses in the U.S. That is, a worldwide loss of competitive advantage for U.S. companies would result in losses that might endanger the survival of some companies.

The impact of U.S. companies operating in China can be surmised from the annual member priorities survey conducted by the US-China Business Council (USCBC, 2006). The following are the key findings of the survey.

- A majority of the U.S. companies (85%) operating in China are profitable.
- About 57% of the U.S. companies' investments in China were for the purpose of tapping into the vast Chinese market.
- About 18 percent of the U.S. investments in China serve as a re-export platform to the U.S. market.

Based on the above and other research results, it is clear that U.S. companies are benefiting from their operations in China and there are some very positive effects of their operations on the U.S. economy.

#### 6) U.S. security holdings in China

In the past decade, institutional investors have been pursuing overseas opportunities as a means to cushion the uneven growth in the U.S. economy. Economic growth outside the U.S. has forced institutional investors and pension funds to consider Europe and Japan as attractive alternatives. For example, Capital Guardian Trust Co. has over 93 billion dollars in international securities assets and Fidelity Investments of Boston had assets worth \$56 billion (O'Connor, 2006). In recent years, investors have also considered China as a potential country for investing.

China's stock market is skyrocketing and this coupled with improvements in liquidity has perked the interest of investors in adding Chinese stocks to their portfolios. Until 1991, only domestic Chinese residents could invest in Mainland companies. The shares were listed in either on the Shanghai Stock Exchange (SSE) or smaller Shenzhen Stock Exchange (SZSE). In 1991, China created a sub-set of B shares that could be bought with foreign currencies, but without shareholder rights. Initially, there was very little interest in B shares among foreign investors as these shares also included a number of weak local companies. After changes in its accounting regulations and better screening guidelines, the B shares have become stable and attractive to foreign investors. Most of the foreign buyers of B shares are large brokerage firms. Nowadays, investors have opportunities to buy a number of different classes of Chinese shares including A, B, and H shares (H shares are listed on the Hong Kong Stock Exchange), U.S. listed ADRS (American Depository Receipts), and U.S. Listed ETFs (Exchange Traded Funds).

To help attract more foreign investors, the Chinese regulators are considering other changes including tripling the quota of foreign stock purchases from \$10 billion to \$30 billion for those who qualify; dual listing of major IPO's simultaneously offering shares

to domestic Chinese and foreigners; and making it possible for foreigners to own A-shares. These and other changes are being instituted by the Chinese Securities Regulatory Commission (CSRC) making it easier for foreigners to own stocks. In the past, the lack of liquidity and the restrictive regulations had made investing in China a challenge. With the proposed changes, investing in China has become less complex.

As in the U.S., the two main ways to invest in the Chinese stock market are to buy individual shares or to invest in a fund, index, or brokerage account that includes publicly held Chinese companies. Stocks in the two exchanges (SSE and SZSE) are traded in Renminbi (Yuan). There are no direct sources that list all the security holdings by foreigners in China. Some of the listings of foreign stock ownership are held by various governmental agencies. International agencies such as the OECD either have the data just for a few member countries or have data that combines FDI flows and security holdings. Table 13 presents the U.S. capital outflows to China for the years 1994 to 2006 as reported by OECD. As seen in the table, there is no pattern in the U.S. capital flows into China. The outflows have ranged between 261 million dollars to 4.7 billion dollars (2006).

**Table 13**  
**U.S. Capital Outflows to China 1994-2006**

Year	Capital Outflows (\$000,000)
1994	1,237
1995	261
1996	933
1997	1,250
1998	1,497
1999	1,947
2000	1,817
2001	1,912
2002	875
2003	1,273
2004	348
2005	1,441
2006	4,656

Source: <http://www.OECD.org/> January 2008



## 7) New initiatives by the U.S. government

The fallout of the staggering trade deficit with China has led to some initiatives undertaken by the U.S. government and industry associations. These entities in an effort to assist U.S. businesses to be more aggressive and succeed in exporting goods and services to China have embarked on export promotion schemes including the recently signed agreement in 2005 between the US Commercial Services and the China Council for the Promotion of International Trade (CCPIT). This effort is directed at small and medium-sized (SME) U.S. companies in China. This agreement expands the Commercial Service's Gold Key service to 14 more cities in China that provides assistance to U.S. businesses (Hulme, 2006).

Another initiative that should also help U.S. exporters is the recently revised rules by the US government dealing with export of technology to China. United States exporters can now export some technological items such as semiconductor equipment and electronics without applying for licenses ("U.S. Revises China-Export Rules", 2006).

## **B) Negative Impact of the Trade with China**

There are quite a few negative effects of the large U.S. trade deficit with China on the U.S. economy. The three most critical areas of the impact of the trade imbalance with China appear to center on job losses in the manufacturing sector, overall unemployment levels in the country, and the effect on the value of the dollar against leading currencies. A fourth one of concern is the issue of intellectual property rights.

### 1) Job losses in the manufacturing sector

The shifts in production facilities from the U.S. to China to take advantage of the lower labor costs have definitely caused many manufacturing jobs to be lost in this country. Some estimates suggest that the U.S. manufacturing sector might have lost anywhere between 500,000 to 2,100,000 jobs in the past ten years. The troubling aspect of this job loss for many policy makers is that these jobs are normally of the higher wage category

and, hence, many of these workers when they do get new jobs end up earning less than what they did before in the manufacturing industries.

Another troubling issue for the U.S. is the shift in manufacturing jobs from highly skilled and advanced technology areas, once considered relatively immune to U.S. job losses. These high technical jobs have been lost in industries such as electronics, computers, and telecommunication equipment (Scot, 2005).

A study conducted in January 2005 by the US-China Economic and Security Review Commission, which monitors trade with China for the U.S. Congress, found that the U.S. lost nearly a million and half jobs to China between 1989 and 2003 (Scott, 2005). This may lead to actions by U.S. policy makers that may escalate the war of words between the two countries. From an economic standpoint, any restrictions on trade have long-term negative effects on both countries. In fact, in June 2007, four leading senators from both parties were proposing legislation aimed at penalizing China over its export practices (Weisman, 2007).

## 2) U.S. unemployment

A second major issue that is considered an outgrowth of the trade imbalance with China is the overall unemployment level in the U.S. Critics of the trade imbalance with China blame the ever increasing trade deficit for many job losses that may raise overall unemployment levels. Job losses of about 441,000 per year attributed to the trade with China (Scott, 2006) should definitely affect U.S. unemployment rates. However, this job losses and the resulting projected unemployment level have yet to be felt in the U.S. economy. While, jobs have been lost since the start of the rising trade deficit with China, many China experts are reassured by the fact that jobs in other sectors have been created in their place keeping the unemployment level relatively constant (Exhibit 6).

## 3) Effects of the trade imbalance on the U.S dollar

A third concern for many is the effect of the trade imbalance on the U.S dollar. In some quarters, it is argued that the loss in value of the dollar against major currencies is due to

the trade deficit with China and other countries. There is no evidence correlating the loss in value of the dollar to the trade gap with China alone. On the other hand, there is ample evidence suggesting that the loss in value of the dollar might be related to the overall U.S. trade deficit and the structural shifts in the U.S. economy.

The experts agree that the two main reasons for the dollar's decline are the large overall U.S. trade deficit and the ever rising U.S federal budget deficit. The projected 2006 U.S trade deficit of over 800 billion dollars is definitely one factor that is affecting the U.S dollar. To that extent, the 232 billion dollars trade gap (nearly 29% of the total) with China is one of the contributors to the loss in the value of the dollar.

Equally important in maintaining the value of the dollar is the federal budget deficit. In the recent past, the U.S federal debt has risen from 6.2 trillion dollars in 2002 to nearly 9 trillion dollars by 2006. This is definitely not going to help the U.S dollar maintain its value. But, there is a projected positive benefit to this decline in the value of the dollar. If theory holds true, the cheaper dollar should make U.S. goods and services more attractive to the world, and hence, increase the U.S. exports. This eventually should lower the overall U.S. trade gap and strengthen the dollar.

#### 4) Intellectual property rights

China joined the World Intellectual Property Organization (WIPO) in 1980 as it was liberalizing trade and seeking foreign direct investments. Since then, it has passed regulations that are meant to protect intellectual property rights (IPR) such as patents, copyrights, trade marks, trade secrets and so on. In practice, China's record of enforcement of the IPR laws is abysmal. Very few cases of IPR violations are ever brought to courts and, if they do, they are either dismissed or the guilty parties are treated with leniency.

China has failed to provide adequate protection to intellectual property rights. This is a major concern for China's trading partners, and especially for the U.S. Over 50 percent of U.S. exports depend on some form of IPR (Field, 2006). Because of the lack of

enforcement of IPR laws, U.S. companies that export to China stand to lose billions of dollars through pirating.

## **X) China's Economic Power – A Long-Term View**

China has become the second largest economy through economic reforms, trade liberalization, and foreign direct investments. These initiatives have helped China to achieve phenomenal growth rates that it has sustained for over ten years (Exhibit 1). Based on current economic data, this trend is expected to continue into the next foreseeable future. In analyzing the key economic data, it appears that some of the economic fundamentals are definitely going to help China maintain its growth patterns. At the same time, there are some troubling trends in the economy and internal problems that may affect the growth patterns and derail this economic engine.

### **1) Key reasons for the continued growth of the Chinese economy**

#### **a) Foreign Direct Investment**

As mentioned earlier, in the last ten years, China has benefited from inflow of foreign investments to the tune of over \$200 billion dollars. The inward FDI flows account for nearly 10 percent of the gross fixed capital formation of China compared to the United States 4 percent (UNCTAD). This inflow of capital has been a major force in the rapid expansion of the manufacturing sector in China. China receives FDI flows from many countries including Hong Kong, Japan, and South Korea (Table 14). These FDI flows have propelled the Chinese to be the major source of manufactured goods from garments to machinery & equipment. To maintain its manufacturing base, China consumes about 31 percent of the world's total steel production, by far the highest. The European Union with 13.9% of steel consumption is second.

**Table 14**  
**China's Top Ten Origins of FDI Flows – 2005**

#	Country of Origin	Amount Invested (\$000,000,000)
1	Hong Kong	17.95
2	Virgin Islands*	9.02
3	Japan	6.53
4	South Korea	5.17
5	United States	3.06
6	Singapore	2.20
7	Taiwan	2.15
8	Cayman Islands*	1.95
9	Germany	1.53
10	Western Samoa*	1.35

Source: PRC Ministry of Commerce

(\* The funds invested through these territories/countries are by individuals from other countries making use of the tax haven status of these territories/countries).

The previously mentioned FDI flows have also influenced the overall R&D efforts in China, helping it to raise its technological levels. These efforts have been instrumental in transferring technology from industrialized countries to local Chinese firms improving their competitiveness in the world markets. Historically, multinationals have allocated a bulk of their research spending to activities in their home countries and spent small amounts in other industrialized countries (Naughton, 2006). Between 1995 and 2003, China's annual rate of R&D spending grew at a rate of 20 percent, which was higher than that of most countries of the world ("Asia's Rising Science and Technology Strength: Comparative Indicators for Asia, the European Union, and the United States", 2007). Lately, subsidiaries of U.S. multinational companies such as Intel, Motorola and others are spending substantial amounts of funds on R&D in China. The U.S. companies in China report spending 9.2 percent of their value added on R&D, significantly greater than the average rate of 3.3 percent for U.S. subsidiaries in all overseas locations ("U.S. – China R&D Linkages: Direct Investment and Industrial Alliances in the 1990s", National Science Foundation, 2007).

- China's Growing Influence in Asia and Africa

Lately, China's influence in Asia and Africa is growing since the United States is less active in the region. In 2007, China has pledged nearly \$20 billion to finance trade

and infrastructure across Africa over the next three years (Polgreen and French, 2007). China's need for raw materials has resulted in many Chinese companies setting up businesses in Africa to extract raw materials such as cobalt, manganese, oil, and uranium. Moreover, Africa has become a major export market for Chinese manufactured goods, including garments, radios, television sets, and appliances. These imports at much cheaper prices have given many of the continent's population access to goods and amenities that the industrialized countries take it for granted.

A recent development that needs to be recognized is that many Chinese business executives feel that the U.S. market is not as crucial as it used to be. According to some of the Chinese business executives, since 2000, the share of China's exports to the U.S is slowly declining compared to their total export volume. In 2000, China exported more than 31 percent of its total volume in trade to the United States, but this figure has dropped to around 24 percent in the recent past. This decline in exports has been made up with exports to rest of the world, notably Brazil, India, and Russia (Table 15). There is no direct consequence of this shift in the overall trade between China and the U.S, but it is something to consider in the wake of the resentment towards the ballooning trade deficit. It appears that China is much better prepared to deal with any decline in its trade volume with the U.S.

**Table 15**  
**China's Exports by Region (%)<sup>\*</sup> 2000 – 2006**

Region	2000	2001	2002	2003	2004	2005	2006
United States	31	30	28	27	26	25	24
European Union	22	22	22	23	23	23	23
East Asia	26	27	26	25	24	22	21
Rest of the World	19	21	23	25	27	30	32

<sup>\*</sup>Total may not add up due to rounding

Source: "China Leans Less on U.S. Trade", *New York Times*, April, 18, 2007, pp: C1, C8.

## 2) Key Reasons for a Potential Stagnant Chinese Economy.

Following are some of the reasons that China experts feel will make it difficult for China to maintain the present growth rates. If a confluence of events mentioned below occurs, China may in fact have a problem maintaining even an annual 3 to 4 percent economic growth rate.

#### a) Foreign Direct Investments

A concern for the Chinese government must be the concentration of the FDI flows. About 72 percent of the FDI flows into China have been concentrated in the coastal regions, leaving the interior to remain purely underdeveloped. This may have some drastic effects on China's economic growth. Many western economists suspect that the double digit economic growth of China might be just relegated to the urban centers and if the real GDP growth of the rural areas is included, the growth rate might be much smaller.

#### b) Internal problems

China is struggling through some internal problems that are posing difficulties for its leaders. These include inefficiency and loss-making state-owned industries, the debt-ridden financial institutions, corruption, crony capitalism, uneven regional development, environmental degradation, steady fall of the water table especially in the north, rising income inequality, and violation of human rights (Yao, 2006). All these critical issues are conspiring to dampen the economic growth of China. Below is a discussion of just two of the internal problems facing China?

##### i) Financial institutions

China's financial system, especially its banking sector is a major problem area for the Chinese government. The case of China Construction Bank is an excellent example. Its recent chairman had to resign under allegations of corruption and the previous chairman was imprisoned for taking bribes. About a fifth of the bank's loan portfolio is non-performing. Even after an infusion of 22 billion dollars by the central government about 14 percent of its loans are suspect (Wiseman, 2006). The overall banking system is already burdened with non-performing loans and the government has periodically bailed out the system through infusion of new capital. For example, in 1999, the government transferred over \$200 billion worth of debt from the banking system to asset management companies. It also added an additional \$30 billion of fresh capital to the banking sector. China's present toll of bad loans is estimated to be \$500 billion (Goodman, 2005).

Because of the bad loans in its banking system, China has to raise tens of billions of dollars to help write off these bad debts.

#### ii) Environmental problems

China's overall environmental problems are without a doubt one of the catastrophic disasters ready to take place anytime soon. Air quality in most of China's major cities is not breathable. According to the World Bank, about a third of the Chinese population breathes air that does not meet national air quality standards. In addition, China is facing some of the worst soil erosions in the world leading to a vast cloud of dust that covers Beijing and other cities. The soil erosion is also reducing arable land that may result in shortages of basic food supplies, especially in the rural areas.

If the economy continues to grow, within the next decade, China could overtake U.S. as the world's largest source of greenhouse gases that are associated with global warming. China continues to use coal as its energy source (about 75% of China's energy comes from coal). Use of coal, discharges about 19 metric tons of sulfur dioxide a year into the atmosphere that results in acid rain (Becker, 2004).

Another environmental problem facing Chinese leaders is the lack of clean fresh water. Most of the water supply in major cities is contaminated. The World Bank estimates that about 700 million people in China might be drinking contaminated water. The result of the environmental problems is expected to show up in the physical health of the Chinese. Major health issues might divert the government's attention and budget to treat its people and reduce the available labor pool that is so critical for its economic expansion. This may in turn spell a major problem for the continued growth of the Chinese economy (Kattoulas, 2001).

#### c) Fallacy of the economic projections

According to some projections among the Chinese, their country will catch up with the United States before the 22<sup>nd</sup> century. This seems unlikely based on three factors: 1) as



mentioned previously, the 10 percent annual economic growth is mostly centered on urban areas and the 70 percent of the economy that is based in rural areas has not been growing (Thurow, 2007); 2) in the past, some economists have used electricity consumption to predict economic growth of countries. Based on China's electricity consumption for the past decade, it appears that its electricity consumption is far below what it should be to achieve high economic growth patterns. In most countries, electricity use had generally grown faster than the GDP growth. Among the world's 12 most rapidly growing economies over the last 10 years, the GDP has grown only 45 percent as fast as electricity consumption. Using China's electricity consumption rates, its GDP has been growing between 4.5 percent and 6 percent, and not at the 10 percent claimed in official statistics (China's overall growth rate of 10 percent appears to be an approximate growth rate of the economy of the cities); and 3) the United States economy is growing at a steady pace. Between 1990 and 2007, the U.S. per capita income grew faster than nearly all other major countries. At this rate, the U.S GDP per capita would reach \$650,000 by year 2100 and China's GDP per capita would be around \$40,000 (assuming the revised inflation adjusted economic growth rate of about 4 percent). In per capita terms, the country is still at lower middle-income level and about 130 million Chinese falls below the international poverty line (\$1.08/day).

#### d) Rising wages and labor pool shortages

Another troubling sign for China is the rising wages and shortage of skilled workers that are creating problems for businesses finding able-bodied workers, especially those with skills. Higher wages in China are expected to result in higher prices in the United States and more importantly for China, a shift in the flow of FDI away to other neighboring Asian countries (Bradsher, 2006). In the past, China has benefited from the large FDI flows that have fueled part of its economic growth. A reversal in the FDI flows might be disastrous to its economy. A related issue is the demographic consequence of the one child policy. China is one of the most rapidly aging countries in the world. This may further exacerbate the problem of finding talented pool of workers for continuing its

growth through manufacturing. Some foreign garment manufacturers have already moved their production facilities to Vietnam where wages are much lower than in China.

#### e) Political problems

A few China experts have theorized that unlike Russia, Chinese leaders have concentrated their attention on economic reforms at the cost of political reforms. The apparent political stability maintained by the Chinese leaders through autocratic control of the political system has enabled the Chinese leadership to devote their time and energies on one single issue and achieve the economic success of the past two decades. If at some future point in time, the political landscape shifts, and people who are at the fringes of the economic spectrum create political unrest, will the Chinese leaders be less autocratic and lose control of the political machinery to maintain economic growth or will they loosen their control of the political machinery and suffer the consequence on the economic front? How will this shift in concentration from economic reforms to political concerns by the leadership play out?

An equally troubling problem for the Chinese leaders is the human rights issues. Human rights advocates and some of its trading partners have criticized China for its lack of rules, regulations, and control over issues that deal with human rights including equality of the law, freedom of expression, media suppression, and workers rights. If these issues are not addressed by the Chinese leadership, the resulting unrest of the suffering masses might one day add to the political volatility in China.

#### f) Quality and safety of Chinese exports

The recent scandals involving tainted and poor quality products that have been produced in China and shipped to the U.S. are some troubling incidences that might derail the economic engine that is driving China to be one of the world's economic leaders. For example, in June 2007, U.S. federal officials informed a small New Jersey importer to recall 450,000 radial tires after the company disclosed that its Chinese manufacturer had stopped including a safety feature that prevents tires from separating (Martin, 2007). The

defective tires are just one of many problems associated with Chinese manufacturers. In March, contaminated ingredients for animal feed manufactured in China caused deaths of some pet animals in the U.S. leading to one of the largest pet food recalls in American history. Besides the pet food recall, the U.S. authorities were also alarmed by the presence of diethylene glycol, a toxic chemical in toothpaste and toys coated with lead paint that were manufactured in China. Unless, China can crackdown on small scale manufacturers that flourish under very little government control, China's growth engine may stall and self destruct.

Recognizing the impact of these recalls, the Chinese government has stepped up its crackdown on illegal manufacturing processes that flourish in the country side (Barboza, 2007). Chinese regulators had to close down more than 180 food manufacturing plants that had more than 23,000 food safety violations. Overall, the number of products made in China that are being recalled in the U.S. by the Federal Consumer Product Safety Commission has doubled in the last five years (Lipton and Barboza, 2007). In 2006 federal authorities recalled 467 items, an annual record.

## **XI) Conclusion**

The People's Republic of China is one of the fastest growing economies in the world. During the last ten years it has consistently attained double digit economic growth rates. Between 1997 and 2007 China's average economic growth rate was 10%. For the period 1980 to 2006, the GDP per capita rose from \$300 to \$2,000. This economic growth is fueled by considerable inflows of foreign direct investments that have poured millions of dollars into the manufacturing sector, making China the manufacturing center of the world.

Between 2000 and 2005, net FDI flows into China doubled from 38.4 billion dollars to 79.1 billion dollars. Just in the last ten years, China is the beneficiary of FDI flows of over 200 billion dollars. In recent years, China is also attracting U.S. institutional investors who are looking for attractive alternatives to be part of their portfolios. To help attract more foreign investors, the Chinese regulators are considering changes making it

easier for foreigners to own stocks. In the past, the lack of liquidity and the restrictive regulations had made investing in China a challenge, but with the proposed changes, it is becoming easier to invest in China. In addition to the FDI and capital flows, China has also benefited from an increase in its exports that has resulted in a current account balance of nearly 180 billion dollars. China, with a GDP (PPP) of over 10 trillion dollars ranks second only to the U.S. in terms size of the economy.

In attaining the current growth rate, China and its leaders had to undergo some drastic shifts in their economic policies. The specific economic policies that are now in place include liberalization of prices, fiscal decentralization, the rapid growth of the private (non-state) sector, establishment of a diversified banking system, the development of the stock market, and the opening of the country for foreign trade and investments. The change in the State policy on international trade played an important role in creating a good external environment. China's trade policy changed from import-substitution and self-reliance before economic reforms to export promotion and openness

Today, China is the third largest trading partner of the United States. Between 1985 and 2006, China's exports to the U.S. grew from just under 4 billion dollars to 287 billion dollars. In 2006, only Canada and Mexico were ahead of China with trade volumes of 534 and 332 billion dollars respectively. Although, Canada and Mexico are the largest trading partners of the U.S., the collective trade deficit between the U.S. and these two trading partners is substantially lower compared to the trade deficit with China.

Since 2000, the total trade in goods (exports and imports) between the two countries has increased by 300% from 116 billion dollars in 2000 to 343 billion dollars in 2006. What is alarming to most United States policy makers is the trend in the direction of trade between the two countries. While the United States exports to China are rising, imports from China are rising even at a faster rate.

The emergence of China as a major international force in international trade has had far reaching economic impact on the global marketplace and more importantly on the U.S.

The economies of the U.S. and China are now inextricably linked together. In the past five years, U.S. and China together have accounted for roughly one-half of the economic growth of the world.

A troubling trend in the trade between the U.S. and China are the type of goods that are traded between the two countries. The U.S. imports more value-added goods from China whereas its exports to China are in raw materials and agricultural products that do not have the same value-added component as finished or manufactured goods. Between 1996 and 2006 nearly 95% of all China's exports to the U.S have been in manufactured goods such as aerospace components, computers, and electronic goods.

One the key reasons for the United States trade deficit is an expanding U.S. economy. The growing U.S. economy has resulted in an ever increasing demand for goods and services that the domestic suppliers are not able to meet at competitive prices because of increasing costs associated with U.S. domestic manufacturing. In addition, many foreign countries, notably Japan, South Korea, and Taiwan have exported high-quality products to the U.S. market creating a depressed demand for American made products. Putting the U.S. - China trade into a broader perspective, we should consider these additional factors: the U.S has always had negative trade imbalance with its trading partners even before the Chinese entered the scene, but in the recent past this trade imbalance has shifted from other trading partners to China. Part of the trade deficit between the U.S and China may be the result of statistical discrepancies. Finally some of the exports from China to the U.S are actually re-exports of American companies that have operations in China.

In the opinion of many policy makers and politicians, China is benefiting from an artificially depressed currency, making the Chinese exports cheaper, giving the Chinese an unfair advantage. Although, the Chinese Yuan is artificially maintained, the U.S dollar has also lost considerable value with some of the major currencies of the world. Moreover, there is no convincing evidence that proves that a country's undervalued currency actually improves its trade balance.

The U.S. trade imbalance with China has resulted in a few problems for the U.S. economy. The shifts in production by U.S. producers and the reliance on Chinese suppliers have led to a drop in manufacturing jobs in the U.S. It is estimated that in the past decade, between 500,000 to about 2,100,000 million jobs in manufacturing have been lost to the Chinese. In addition, some feel that the overall U.S unemployment has also suffered due to the large trade gap with China. The U.S. policy makers are also concerned with the declining value of the dollar against major currencies. In some quarters, there is a belief that it is the huge trade deficit with China that is causing the decline in the value of the dollar.

Although, the trade with China has caused manufacturing jobs to be transferred to China, the U.S. companies that have setup operations in China have benefited through cost efficiencies that have improved their world competitiveness. Also, because of trade with China, U.S. consumers have benefited by paying less for goods and services that originate in China. It appears that the concern about U.S. unemployment is unfounded as the country's unemployment levels have remained stable for the past 20 years, except during the recession of early 2000. Finally, on the issue of the declining value of the dollar, most evidence indicates that the dollars decline is partly caused by the large U.S. budget deficit and partly because, the overall trade imbalance but not with China alone.

China has become the second largest economy through economic reforms, trade liberalization, and foreign direct investments. These initiatives have helped China achieve phenomenal growth rates that has sustained for over ten years. Based on current economic data, this trend is expected to continue into the foreseeable future. In analyzing the key economic data, it appears that some of the economic fundamentals are definitely going to help China maintain its growth patterns. At the same time, there are some troubling trends in the economy and internal problems that may affect the growth patterns and derail this economic engine. Some of the internal problems facing China's leaders include inefficiency and loss-making state-owned industries, the debt-ridden financial institutions, corruption, crony capitalism, uneven regional development, environmental

degradation, steady fall of the water table especially in the north, and rising income inequality.

There is also a concern about the political stability of the country because of a lack of participation in the political system by the general public. The uneven economic gains and the growing divide between the rich and the poor might lead to dissatisfaction with the existing governing structure resulting in demand for changes. In addition, China is facing major problems with safety issues of the goods it exports including contaminated food and unsafe toys. Unless the Chinese authorities tackle these myriad and complex problems its growth might be stunted.

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# Figures & Graphs

## Figure 1

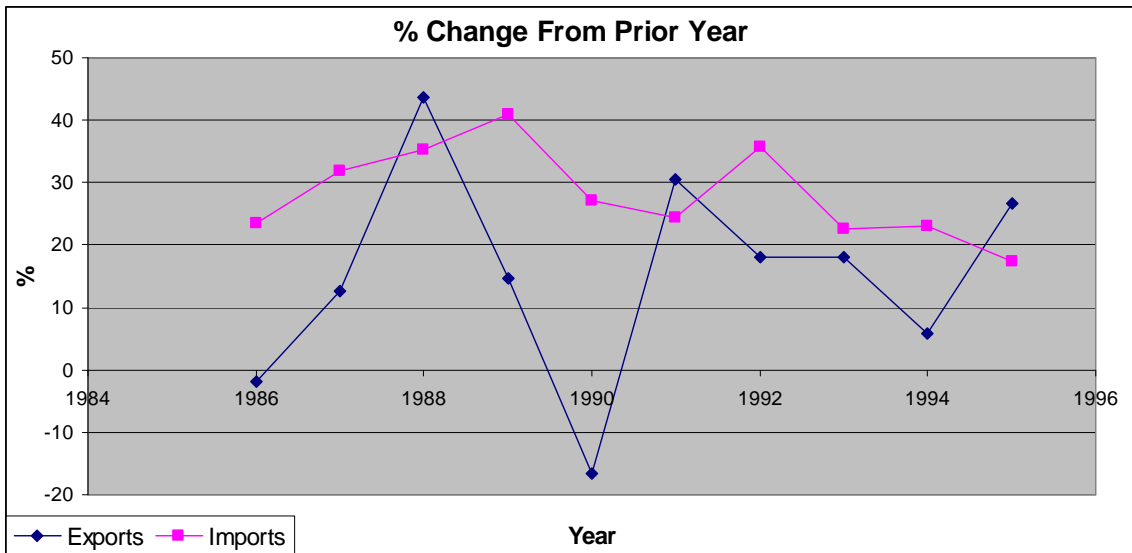
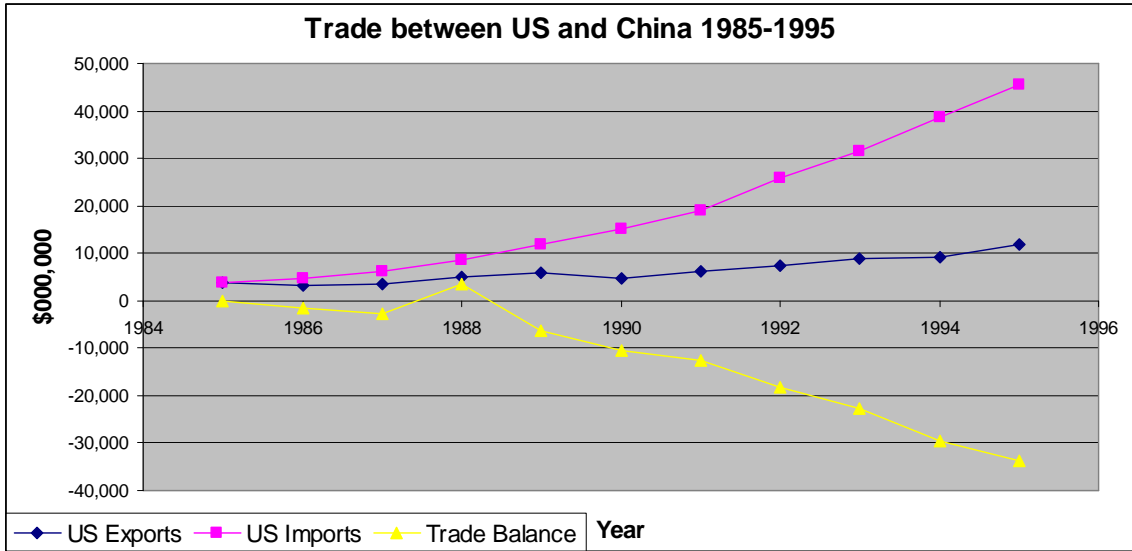


Figure 2

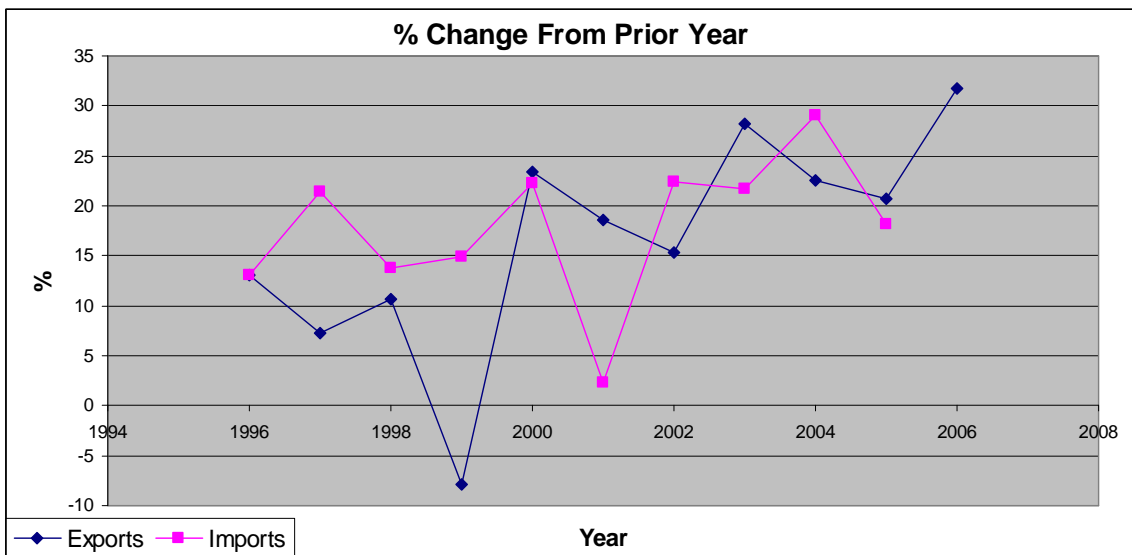
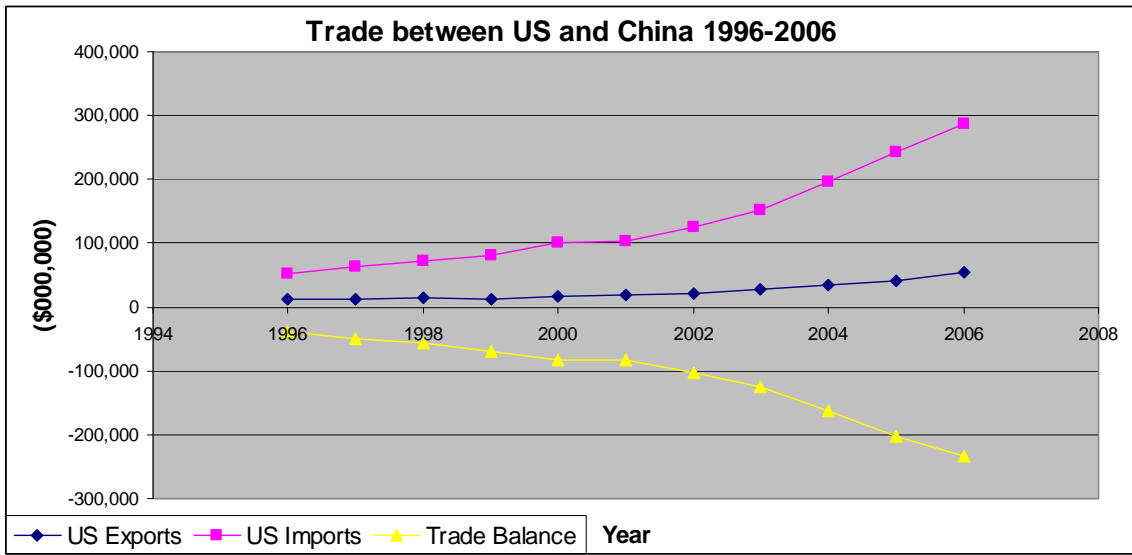


Figure 3

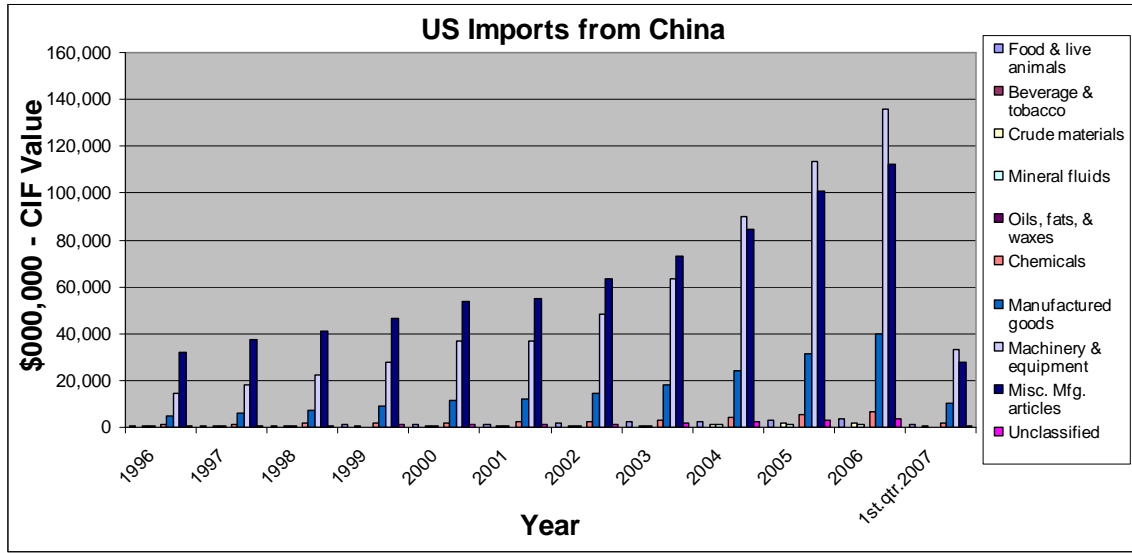
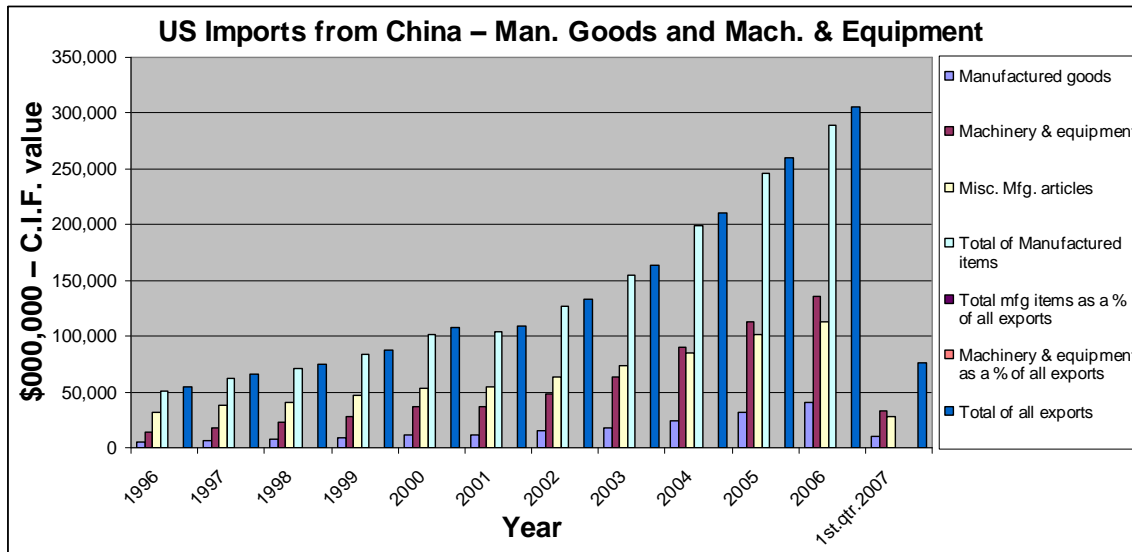
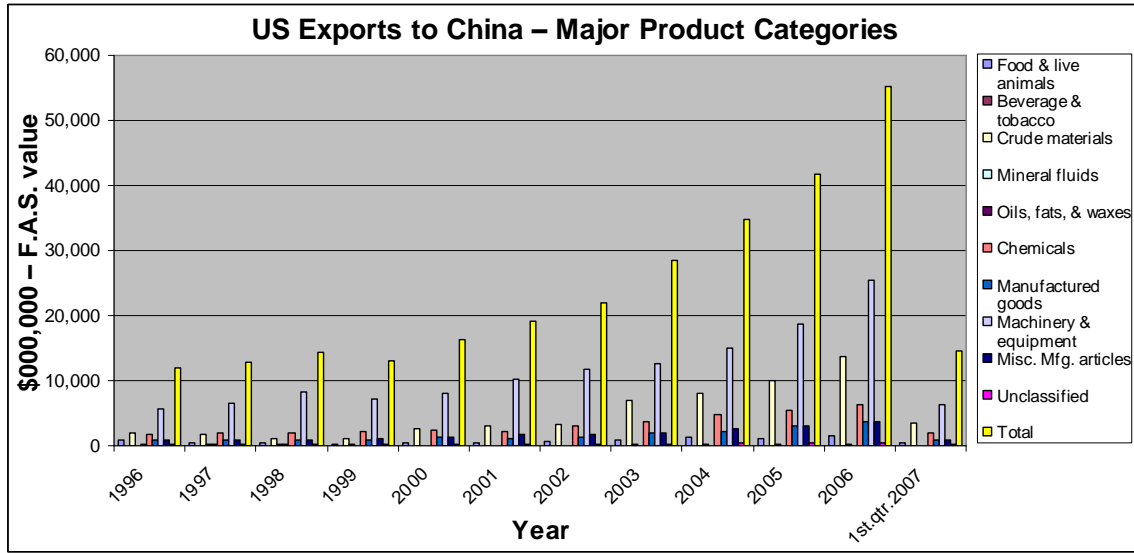


Figure 4



**Figure 5**



**Figure 6**

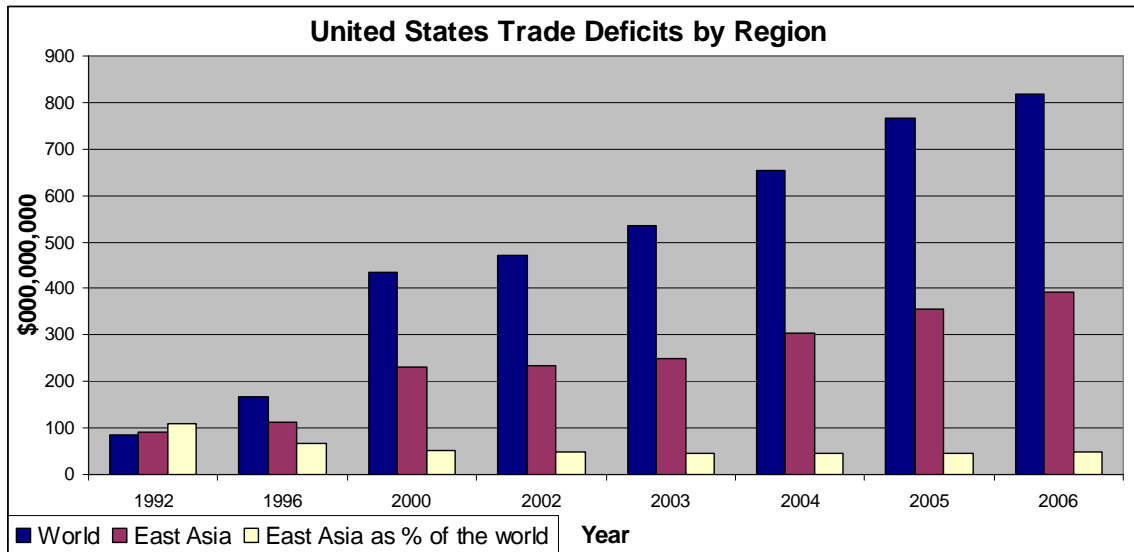
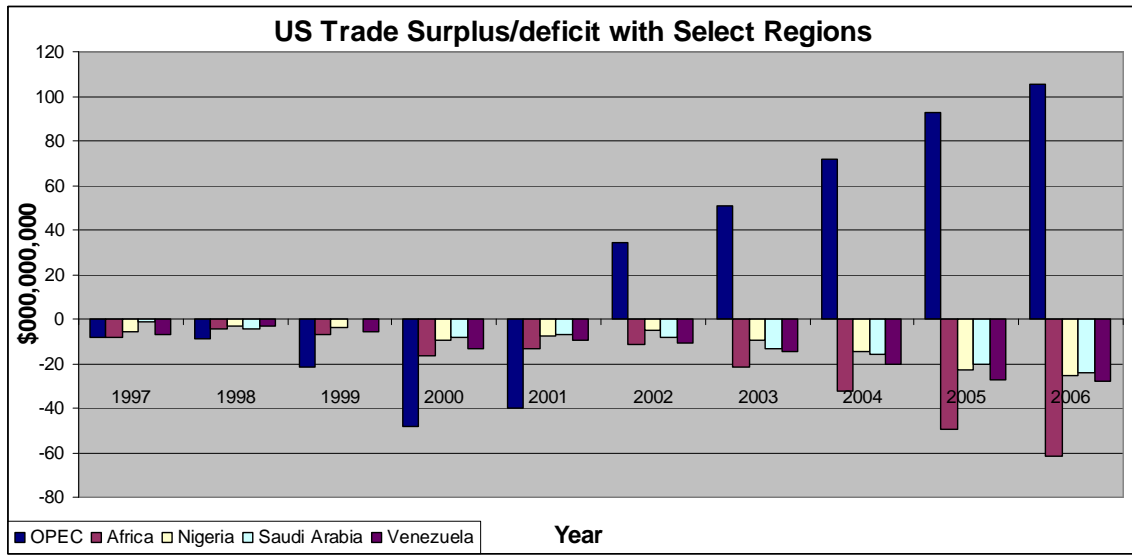


Figure 7



**Exhibit 1**  
**Gross Domestic Product (GDP) and GDP/Capita of China**  
**1960-2006**

Year	GDP constant 2000\$ (000,000,000)	GDP growth rate (%)	GDP/capita (constant 2000\$)	GDP/capita (PPP constant 2000\$)*
1960	70.35		105.00	-
1961	51.28	(27.10)	78.00	-
1962	48.15	(6.11)	72.00	-
1963	53.13	10.34	78.00	-
1964	61.55	15.84	88.00	-
1965	71.62	16.36	100.00	-
1966	79.28	10.70	108.00	-
1967	74.76	(5.70)	99.00	-
1968	71.70	(4.10)	93.00	-
1969	83.81	16.90	105.00	-
1970	100.07	19.40	122.00	-
1971	107.07	7.00	127.00	-
1972	111.15	3.80	129.00	-
1973	119.93	7.90	136.00	-
1974	122.69	2.30	136.00	-
1975	133.36	8.70	146.00	604.00
1976	131.22	(1.60)	141.00	585.00
1977	141.20	7.60	150.00	621.00
1978	157.72	11.70	165.00	684.00
1979	169.70	7.60	175.00	727.00
1980	182.94	7.80	186.00	774.00
1981	192.45	5.20	194.00	803.00
1982	209.97	9.10	208.00	864.00
1983	232.85	10.90	228.00	944.00
1984	268.25	15.20	259.00	1,074.00
1985	304.46	13.50	290.00	1,202.00
1986	331.26	8.80	311.00	1,288.00
1987	369.68	11.60	341.00	1,415.00
1988	411.45	11.30	373.00	1,550.00
1989	428.32	4.10	383.00	1,589.00
1990	444.60	3.80	392.00	1,625.00
1991	485.50	9.20	422.00	1,751.00
1992	554.45	14.20	476.00	1,975.00
1993	632.07	14.00	536.00	2,226.00
1994	714.87	13.10	600.00	2,489.00
1995	792.79	10.90	658.00	2,730.00
1996	872.07	10.00	716.00	2,972.00
1997	953.17	9.30	775.00	3,215.00
1998	1,027.52	7.80	827.00	3,433.00
1999	1,105.61	7.60	882.00	3,659.00
2000	1,198.48	8.40	949.00	3,939.00
2001	1,297.95	8.30	1,021.00	4,235.00
2002	1,416.07	9.10	1,106.00	4,589.00
2003	1,557.67	10.00	1,209.00	5,017.00
2004	1,715.00	10.10	1,323.00	5,490.00
2005	1,889.93	10.20	1,449.00	6,102.00
2006	2,088.45	10.50	1,582.60	7,600.00

The World Bank started the Purchasing Power Parity (PPP) method of reporting GDP in 1975

Source: <http://www.worldbank.org/>

**Exhibit 2**  
**Trade between US and China 1985-2006**

Year	US Exports		US Imports		Trade Balance
	(\$000,000)	% Change	(\$000,000)	%Change	(\$000,000)
1985	3,855.70		3,861.70		-6.0
1986	3,106.30	-1.94	4,771.00	23.57	-1,664.70
1987	3,497.30	12.59	6,293.60	31.90	-2,796.30
1988	5,021.60	43.58	8,510.00	35.23	3,489.30
1989	5,755.40	14.62	11,989.70	40.88	-6,234.30
1990	4,806.40	-16.49	15,237.40	27.09	-10,431.00
1991	6,278.20	30.62	18,969.20	24.49	-12,691.00
1992	7,418.50	18.16	25,727.50	35.63	-18,309.00
1993	8,762.90	18.12	31,539.90	22.59	-22,777.00
1994	9,261.70	5.92	38,786.80	22.98	-29,505.10
1995	11,753.70	26.63	45,543.20	17.42	-33,789.50
1996	11,992.60	13.11	51,512.80	13.11	-39,520.20
1997	12,862.20	7.25	62,557.70	21.44	-49,695.50
1998	14,241.20	10.72	71,168.60	13.76	-56,927.40
1999	13,111.10	-7.94	81,788.20	14.92	-68,677.10
2000	16,185.20	23.45	100,018.20	22.29	-83,833.00
2001	19,182.30	18.52	102,278.40	2.26	-83,096.10
2002	22,127.70	15.35	125,192.60	22.4	-103,064.90
2003	28,367.90	28.20	152,436.10	21.76	-124,068.20
2004	34,744.10	22.48	196,682.00	29.03	-161,937.90
2005	41,925.30	20.67	243,470.10	23.79	-201,544.80
2006	55,224.20	31.72	287,772.80	18.20	-232,548.60
1stqtr.07	14,474.20		71,425.00		-56,950.80
Average % Change		14.49		22.95	

Total may not add up due to rounding

Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

**Exhibit 3**  
**U.S. Trade with Canada 1990-2006 (\$000,000,000)**

Year	Exports to Canada	Imports from Canada	Surplus/deficit	% change
1990	83.73	91.38	-7.70	
1991	85.15	91.06	-5.91	-23.2
1992	90.64	98.63	-8.04	36.0
1993	100.44	111.22	-10.80	34.3
1994	114.44	128.41	-13.97	29.3
1995	127.23	144.37	-17.14	22.7
1996	134.21	155.90	-21.68	26.5
1997	151.77	167.23	-15.47	-28.6
1998	156.60	173.26	-16.65	8.0
1999	166.60	198.71	-32.11	92.9
2000	178.94	230.84	-51.88	61.6
2001	163.42	216.27	-52.84	2.0
2002	160.92	209.10	-48.17	-8.8
2003	169.92	221.60	-51.67	7.3
2004	189.88	256.36	-66.48	28.7
2005	211.90	290.38	-78.49	18.1
2006	230.66	302.44	-71.78	-8.5
			Average % change	18.6

Total may not add up due to rounding

Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007



**Exhibit 4**  
**U.S. Trade with Mexico 1990-2006**  
**(\$000,000,000)**

Year	Exports to Mexico	Imports from Mexico	Surplus/deficit	% change
1990	28.28	30.16	-1.88	
1991	33.28	31.13	2.15	-
1992	40.59	35.21	5.38	150.23
1993	41.58	39.92	1.67	-7.0
1994	50.84	49.49	1.35	-2.0
1995	46.29	62.10	-15.81	
1996	56.79	74.30	-17.51	10.75
1997	71.39	85.94	-14.55	-16.90
1998	78.77	94.63	-15.86	9.00
1999	86.91	109.72	-22.81	43.82
2000	111.35	135.93	-24.58	7.76
2001	101.30	131.34	-30.04	22.21
2002	91.47	134.62	-37.15	23.67
2003	97.41	138.06	-40.65	9.42
2004	110.84	155.90	-45.07	10.87
2005	120.36	170.11	-49.74	10.36
2006	133.99	198.25	-64.27	29.21
			Average % change	17.80

Total may not add up due to rounding

Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

**Exhibit 5**  
**U.S. Trade Surplus/Deficit with Select Pacific-rim Countries 1990-2006**  
**(\$000,000,000)**

Year	Canada	Japan	Korea S.	Mexico	Philippines	Thailand	Russia*	Total
1990	-7.70	-41.10	-4.08	-1.88	-0.91	-2.30	-	-57.97
1991	-5.91	-43.39	-1.51	2.15	-1.21	-2.37	-	-51.24
1992	-8.04	-49.60	-2.04	5.38	-1.60	-3.54	1.63	-57.81
1993	-10.80	-59.35	-2.34	1.67	-1.36	-4.78	1.22	-75.74
1994	-13.97	-65.67	-1.60	1.35	-1.83	-5.44	-0.67	-87.83
1995	-17.14	-59.14	1.20	-15.81	-1.71	-4.68	-1.21	-98.49
1996	-21.68	-47.58	4.00	-17.51	-2.02	-4.14	-0.23	-93.16
1997	-15.47	-56.11	1.87	-14.55	-3.03	-5.25	-0.95	-97.23
1998	-16.65	-64.01	-7.46	-15.86	-5.21	-8.20	-2.19	-119.58
1999	-32.11	-73.40	-8.22	-22.81	-5.13	-9.35	-3.86	-154.88
2000	-51.88	-81.56	-12.48	-24.58	-5.14	-9.77	-5.57	-190.98
2001	-52.84	-69.02	-13.00	-30.04	-3.67	-8.74	-3.55	-180.86
2002	-48.17	-70.00	-13.00	-37.15	-3.70	-9.93	-4.47	-186.42
2003	-51.67	-66.03	-13.16	-40.65	-2.07	-9.34	-6.17	-189.09
2004	-66.48	-75.56	-19.76	-45.07	-2.05	-11.21	-8.93	-229.06
2005	-78.49	-82.52	-16.02	-49.74	-2.36	-12.63	-11.34	-253.10
2006	-71.78	-88.57	-13.36	-64.27	-2.08	-14.32	-15.13	-269.81
Total								

- Before 1992, Russia was part of USSR
- Total may not add up due to rounding
- Source: U.S. Census Bureau, Foreign Trade Statistics, May 2007

**Exhibit 6**  
**U.S. Unemployment Rate for All Sectors 1980-2006**

<u>Year</u>	<u>Unemployment rate (%)</u>	<u>Year</u>	<u>Unemployment rate (%)</u>
1980	7.1	1994	6.1
1981	7.6	1995	5.6
1982	9.7	1996	5.4
1983	9.6	1997	4.9
1984	7.5	1998	4.5
1985	7.2	1999	4.2
1986	7.0	2000	4.0
1987	6.2	2001	4.7
1988	5.5	2002	5.8
1989	5.3	2003	6.0
1990	5.6	2004	5.5
1991	6.8	2005	5.1
1992	7.5	2006	4.6
1993	6.9		

Source: <http://www.bls.gov/cps/>

**Exhibit 7**  
**U.S. GDP Growth Rate 1980-2006**

<u>Year</u>	<u>GDP growth rate (%)</u>	<u>Year</u>	<u>GDP growth rate (%)</u>
1980	-0.24	1994	4.08
1981	3.11	1995	2.18
1982	-2.07	1996	4.47
1983	4.33	1997	4.50
1984	7.28	1998	4.18
1985	3.82	1999	3.86
1986	3.37	2000	4.25
1987	3.36	2001	0.75
1988	4.16	2002	1.60
1989	3.50	2003	2.70
1990	1.74	2004	4.22
1991	-0.50	2005	3.52
1992	3.06	2006	3.50
1993	2.67	2007 1 <sup>st</sup> qtr	3.20

Source: <http://www.ers.usda.gov/>

**Exhibit 8**  
**Japan's Trade Balance\* and the Exchange Rate Fluctuations\*\* of Yen to Dollar**  
**1990 – 2006 (quarterly data)**

Quarter	Balance	Yen/\$	Quarter	Balance	Yen/\$	Quarter	Balance	Yen/\$
1990.1	-9,549.20	157.82	1995.4	-	103.28	2001.3	-	119.4
1990.2	-10,160.90	152.35	1996.1	11,262.40	107	2001.4	17,809.90	131.27
1990.3	-9,807.20	138.27	1996.2	10,971.60	109.48	2002.1	16,016.20	132.57
1990.4	-11,587.20	135.75	1996.3	11,907.70	111.65	2002.2	17,124.50	118.86
1991.1	-10,357.70	140.6	1996.4	13,438.80	115.77	2002.3	16,963.40	121.37
1991.2	-8,757.70	137.9	1997.1	13,410.60	123.72	2002.4	19,875.30	118.61
1991.3	-11,721.50	132.85	1997.2	12,586.80	114.61	2003.1	16,458.50	118.57
1991.4	-12,548.40	124.9	1997.3	14,765.50	120.71	2003.2	15,737.40	120.17
1992.1	-11,040.70	132.92	1997.4	15,351.80	130.45	2003.3	15,961.20	110.54
1992.2	-11,264.30	125.87	1998.1	15,297.40	133.29	2003.4	17,875.20	106.93
1992.3	-12,560.50	120	1998.2	15,574.60	138.29	2004.1	17,989.90	103.87
1992.4	-14,735.50	124.85	1998.3	15,526.00	136.59	2004.2	18,192.80	108.93
1993.1	-13,342.00	114.9	1998.4	17,616.10	113.08	2004.3	18,895.90	110.54
1993.2	-13,563.30	106.8	1999.1	16,257.50	118.98	2004.4	20,483.70	102.53
1993.3	-15,343.10	106.05	1999.2	17,189.80	120.86	2005.1	20,842.80	106.79
1993.4	-17,106.50	111.7	1999.3	19,391.60	105.64	2005.2	20,799.10	110.78
1994.1	-14,961.80	102.4	1999.4	20,558.90	102.16	2005.3	19,527.40	113.15
1994.2	-15,500.50	98.51	2000.1	19,071.80	103.14	2005.4	21,349.90	117.74
1994.3	-16,785.70	99.05	2000.2	20,738.20	105.24	2006.1	21,185.30	116.35
1994.4	-18,420.20	99.6	2000.3	20,279.10	108.32	2006.2	21,982.45	113.36
1995.1	-15,638.10	86.85	2000.4	21,465.90	114.91	2006.3	21,697.62	116.77
1995.2	-16,712.20	84.78	2001.1	18,226.30	125.39	2006.4	23,698.21	117.67
1995.3	-14,464.70	99.1	2001.2	16,240.30	124.26			

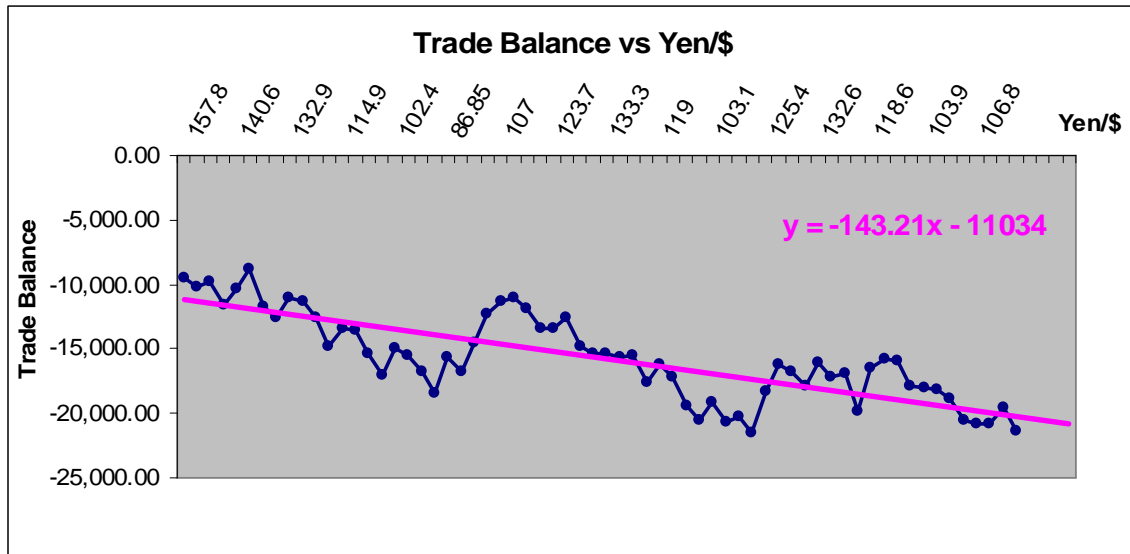
Source: \* U.S. Census Bureau, Foreign Trade Statistics, May 2007

\*\* <http://www.oanda.com/convert/fxhistory>, May 2007

**Exhibit 9**  
**Percentage Rate of Change Yen to Dollar 1990-2006**

Year	1990	91	92	93	94	95	96	97	98	99	2000	01	02	03	04	05	06
% Change	-	-11	-5	-13	-11	-16	+23	+16	+8	-11	-13	+24	+6	-11	-12	+3	+8

**Figure 8**  
**Yen to Dollar Exchange Rate Regression Equation (1990-2005)**



<i>Regression Statistics</i>	
Multiple R	0.512940429
R Square	0.263107883
Adjusted R Square	0.238947486
Standard Error	2917.458802
Observations	64

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	185382719.6	92691359.8	10.89005	9.03274E-05
Residual	61	519205517.4	8511565.859		
Total	63	704588237			