

Neoliberalism, Global Imbalances, and Stages of Capitalist Development

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(Abstract)

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This paper examines certain structural macroeconomic relations in the neoliberal global economy. The current global economy rests upon three unsustainable trends: the debt-driven U.S. consumption expansion; China's excessive investment expansion; and the large and rising U.S. current account deficits. When these trends are eventually reversed or corrected, there could be major upheavals in the world economy. The decline of neoliberalism may pave the way for a new set of economic, political, and social institutions.

1. Introduction

Under neoliberalism, much of the world has suffered from stagnation and financial instabilities. Nevertheless, some countries have enjoyed rapid or relatively rapid economic growth. In recent years, the world economic growth has been concentrated in the U.S. and China. However, both economies are now characterized by serious internal and external imbalances, posing great risks to the sustainability of growth in the two economies as well as the world.

In this paper, we examine certain structural macroeconomic relations (forces) that operate in the neoliberal global economy. We argue that the current global economy rests upon three unsustainable trends: the debt-driven U.S. consumption expansion; China's excessive investment expansion; and the large and rising U.S. current account deficits. When these trends are eventually reversed or corrected, there could be major upheavals in the world economy.

Further, we place the current world economic conjuncture within a longer historical perspective. Neoliberalism can be understood as one particular stage of capitalism with a set of historically specific institutions. It represents a historical response to the crisis of the last stage of capitalist development. It has developed and consolidated over the past quarter of a century. However, it has become increasingly ineffective in managing the growing global imbalances. It is possible that the coming world economic upheavals would mark the end of neoliberalism and pave the way for a new set of economic, political, and social institutions.

2. Neoliberalism and Global Economic Performance

The rise to power of the Thatcher government in Britain and the Reagan administration in the U.S. marked the beginning of the neoliberal era. After the debt crisis in the early 1980s, many Latin American and African countries had to adopt "structural adjustment" programs imposed by IMF and the World Bank. In the early

1990s, former socialist “transition economies” in Eastern Europe and Central Asia started their transition to capitalism under the “shock therapy”. In 1992, the establishment of the European Monetary Union based on Maastricht Treaty represented a major advance of the neoliberal project in Europe.

In the late 1980s, Japan took significant steps towards financial liberalization, contributing to the asset bubbles that led to the later persistent stagnation. South Korea and Southeast Asian newly industrialized economies undertook financial liberalization in the 1990s, paving the way for the financial crisis in 1997. Even China and India, two large countries that had traditionally developed under state-guided models, have slowly but steadily pursued privatization and liberalization since the early 1990s. Thus, by the late 1990s, the neoliberal institutions had become dominant throughout the world.

During the 1980s and the 1990s, the U.S. and many other countries used tight fiscal and monetary policies to fight inflation, leading to high unemployment and falling real wages. Trade liberalization and free flows of capital allow capital to move to countries with cheap labor and the greater mobility gives capital a much stronger bargaining power over labor. Labor’s position is further undermined by cuts of social spending, aggressive restructuring and downsizing of corporations, decline of unions, as well as labor market “reforms” that erode some of the protection traditionally provided by the state (Crotty 2000; Pettifor 2003; Greenhill 2003).

All of these developments tend to shift income and wealth from labor to capital. Figure 1 shows the share of labor income (compensation of employees) in GDP of the world’s seven largest economies. The labor income share has tended to fall in all seven countries since the later 1970s and the early 1980s. The decline of labor income share has been particularly dramatic in Italy and China. The relative or absolute declines of income for the great majority of the population lead to depression

of mass consumption. Consumption is further constrained by the uncertainty and insecurity created by the dismantling of the existing social safety nets.¹

The neoliberal restructuring programs have had devastating effects on many peripheral and former socialist “transition economies”. In fact, between 1990 and 2002, 54 countries out of a total of 166 countries for which data are available suffered from absolute declines in per capita income (World Bank 2004). The collapse of many peripheral and former socialist economies is another factor that undermines the world effective demand (Green 1995; Kotz 1997; Chossudovsky 1998; Yeldan 2003; Serrano 2003; Ghosh 2003; Randriamaro 2003).

Admittedly, whether world income inequality measured by purchasing power parity has increased over the last two decades has been a subject of intense debate (Wade 2003; Sutcliffe 2003). But there is no controversy that world inequality in the distribution of income based on market values has increased sharply in the neoliberal era. The ratio of the income of the richest 20 percent of the world population to that of the poorest 20 percent of the world population rose from 30:1 in 1960, to 60:1 in 1990, and to 75:1 towards the end of the last century (United Nations 2002). From the point of view of generating effective demand, it is the population’s money incomes that matter (after all, firms and households do not receive payments in the form of physical goods and services. Their incomes have to appear as certain amount of money). As the poorest population tends to spend a greater proportion of their

¹ For example, according to an article in *Financial Times*, efforts by Euro-zone governments and corporations to push for “structural reforms” that have the aim of introducing “labor flexibility” and “international competitiveness” so far have only had the effects of forcing consumers to cut spending and increase “precautionary savings” as the “authorities are seen as renegeing on the social contract and no longer deliver the sort of services that people have come to expect from the welfare state.” (Atkins 2004)

incomes than the rest of the population, a more unequal distribution of the world money incomes tends to have an adverse impact on the world's effective demand.

In the "Golden Age", public sector spending played a significant role in building the physical and institutional infrastructure for economic growth as well as stabilizing the macro-economy. In the neoliberal era, however, the confidence of financial capital in an economy often depends on the government carrying out "responsible" macroeconomic policies, which usually mean contractionary fiscal and monetary policies. Concern over the threat of capital flight as well as the neoliberal institutional arrangements (such as so-called the "Stability and Growth Pact" imposed on Euro-zone countries) have prevented many governments from pursuing expansionary macroeconomic policies (Crotty 2000; Rodrik 2003).

Real interest rate stayed at very high levels throughout the 1980s and the 1990s, shifting income and wealth from debtors to creditors, and from industrial capital to financial capital, depressing real productive investment. Productive investment is further undermined by the uncertainty arising from the violent fluctuation of exchange rates as well as frequent financial crises (Felix 2001).

Figure 2 presents the long-term movement of the real interest rates (the real U.S. corporate bond AAA rate and the real yields on British consols) in comparison with the real economic growth rates of 17 advanced capitalist countries (12 Western European countries, U.S., Canada, Australia, New Zealand, and Japan) from the 1860s to the present, all shown in ten-year moving averages.

In the "Golden Age" (between the 1950s and the early 1970s), the economic growth rates were higher than the real interest rates by a substantial margin. Since the mid-19th century, there have been three periods of high real interest rates: the first period was from the 1870s to the 1890s; the second period was between the 1920s and the

1930s; and the third period started in the early 1980s. As the real interest rate roughly equals the growth rate of the real value of debt, periods of high real interest rates are also periods of rapid expansion of debt. It is not just a coincidence that the current neoliberal era has been characterized by slow economic growth rates similar to the late 19th and the early 20th century.

After the burst of the U.S. stock market bubble, to prevent a deep recession, the Federal Reserve lowered the short-term interest rate from 6.5 percent to 1 percent between 2000 and 2003. Although the Federal Reserve has since raised the short-term interest rate, the real policy interest rates of all major central banks remain close to zero.

The lower real interest rates in recent years have flooded the world with liquidity.² But the rapid expansion of global liquidity has not led to sustainable expansion of effective demand supported by the increase in the real incomes of the great majority of the world population. Instead, it has led to a series of asset bubbles, especially housing bubbles, throughout the world, with dangerous implications for the global economy (*The Economist*, March 3, 2005, “Global Housing Prices: Still Want to Buy?”).

² The global supply of U.S. dollars (the sum of the U.S. monetary base and global foreign exchange reserves) rose by 25 percent in 2004. The U.S. money with zero maturity stood at 55.5 percent of GDP in 2004 against an average of 38 percent during 1974-1997. Euro-zone money supply (defined as M1) stood at 38 percent of GDP in 2004 against an average of 24.5 percent during 1991-1997. Japan’s money supply (defined as M1) stood at 73.5 percent of GDP in 2004 against an average of 28 percent during 1980-1997 (Xie 2004; *The Economist*, February 3, 2005, “The World Economy: Still Gushing Froth”).

To summarize, in the neoliberal era, all major components of the world effective demand: mass consumption, productive investment, and public spending, have been subject to serious, sustained constraints. Admittedly, there are offsetting forces. In some periods and in some countries, aggregate demand may expand rapidly due to consumption or investment boom fueled by asset bubbles.³ But on the whole, over the past quarter of a century the global economy has been characterized by sluggish or stagnating effective demand.

As the structural forces of the neoliberal institutions operate to depress the world effective demand, the global economy is confronted with a particularly great danger. Lack of vigorous expansion of domestic demand, many countries are induced or forced to pursue export-led growth, largely by creating a low-wage, low-tax, deregulated environment for foreign and domestic businesses. There is a genuine danger that the universal drive towards exports expansion could lead to a general “race to the bottom” in wage rates, tax rates, social spending, as well as social and environmental regulations, ending with the collapse of the global effective demand (Crotty, Epstein, and Kelly 1998).

Moreover, under conditions of liberalized financial markets and high mobility of capital across national borders, countries running balance of payment deficits are likely to be under strong pressure to correct the deficits through deflationary macroeconomic programs (except for those whose currencies are accepted as international reserve currencies). On the other hand, many other countries try to insulate themselves from large adverse capital flows and financial turbulence by generating trade surpluses and accumulating foreign exchange reserves. Under these conditions, if there were not a sufficiently large economy being able and willing to

³ Kotz (2003) discussed how neoliberal institutions could contribute to assets bubble-led demand expansion in the context of the U.S. economy in the late 1990s.

absorb the surpluses from the rest of the world, the attempts by many countries to generate surpluses or reduce deficits may very well send the global economy into a downward sinking spiral.⁴

At this point, these dangerous tendencies have not yet been materialized largely because the world's largest and hegemonic economy – the U.S. economy has acted as the world's "consumer of last resort", generating large and rising current account deficits offsetting the trade surpluses in the rest of the world (and therefore providing markets for the exports expansion of the rest of the world). However, the U.S. current account deficits cannot keep rising forever in relation to the U.S. and the world GDP.

Table 1 reports the growth performance of selected countries and country groups between 1971 and 2003. The global distribution of growth has been highly uneven. Much of the global economy has suffered from stagnation and at times, major financial crises and declines of living standards. Between the 1980s and the early 2000s, average economic growth rates fell sharply from 2.4 percent to 1.0 percent in the Euro-zone and from 4.1 percent to 0.9 percent in Japan, cutting the average growth rates in high-income economies from 3.2 percent to 1.6 percent despite relatively rapid growth of the U.S. economy.

Much of the periphery and semi-periphery (Eastern Europe, Central Asia, Latin America, Middle East, and Africa) struggled through stagnation and economic crises during the 1980s and the 1990s. Although Eastern Europe, Middle East, and Africa

⁴ Many students of the history of the international monetary system recognize that systems based on liberalized financial markets and free flows of capital tend to impose strong deflationary pressures on national economies and are vulnerable to the possibility of a general collapse of world effective demand (Eatwell and Taylor 2000; D'arista 2003; Eichengreen 2004).

have seen some recovery in the early 2000s, to some extent reflecting the commodity exports boom that started in 2003.

On the other hand, the U.S. and the U.K. have enjoyed relatively rapid growth among the high-income economies. China, East Asia, and South Asia have enjoyed consistently rapid growth since the 1980s.

Table 2 reports the alternative measures of world economic growth. Measured by market exchange rates, the real world economic growth rate fell progressively from 3.7 percent in the 1970s to 3.1 percent in the 1980s, to 2.7 percent in the 1990s, and to 2.0 percent in the early 2000s. The non-U.S., non-China growth rate fell from 4.0 percent in the 1970s to 1.7 percent in the early 2000s.

Measured by purchasing power parity, the real world economic growth rates also fell from 3.8 percent in the 1970s to 3.1 percent in the early 2000s. But the decline was less dramatic and in fact, the world economic growth rate based on purchasing power parity accelerated to an average of 3.6 percent in the period of 2001-2004. The non-U.S., non-China growth rate fell from 3.9 percent in the 1970s to 2.6 percent in the early 2000s.

The U.S. and China emerged as the two main engines of the neoliberal global economy. During the 1990s and the early 2000s, the two economies together accounted for about 50 percent of the global economic growth based on market exchange rates or 45 percent based on purchasing power parity.

It is quite interesting that the two economies have led the world economic growth in two, nearly opposite ways. In the early 2000s, the U.S. contributed about 35 percent of the world economic growth based on market exchange rates and China contributed about 15 percent. The U.S. contribution is more than twice as much as China's.

However, in term of purchasing power parity, China's contribution amounted to 31 percent and the U.S. contribution was no more than 14 percent. China's contribution was more than twice as much as the U.S. contribution.

Starting with the 1990s, a remarkable gap has opened up between the world growth rates calculated on market exchange rates and those calculated on purchasing power parity. By the early 2000s, the gap widened to fully more than one percentage point. Are these huge differences and the interesting contrasts between the U.S. and China simply results of different statistical tricks?

Arguably the world economic growth rates measured by purchasing power parity better capture the expansion of the physical volume of goods and services produced. On the other hand, the world economic growth rates based on market exchange rates better reflect the growth of world incomes in money values. Suppose, one unit of physical output in the world economy in 1990 can be represented by one "real" U.S. dollar, then the growing gap between the two measures of world economic growth implies that by 2003, one unit of the world's physical output can be represented by only 0.87 "real" U.S. dollar.

In other words, a given amount of physical output corresponds to a progressively smaller amount of "real" money income. The world economic growth measured by purchasing power parity may be taken as the proxy for the expansion of world effective supply and the growth measured by market exchange rates may be taken as the proxy for the expansion of world effective demand. In this sense, the growing gap between the growth measures could be the reflection of the ever-expanding gap between the world effective demand and the world effective supply.

The U.S. may be seen as primarily the demand-side engine of the global economy, and China may be seen as primarily the supply-side engine of the global economy. Both engines, however, now suffer from serious internal and external imbalances.

3. The Unbalanced Engines of the Neoliberal Global Economy

The U. S.: Consumption-Led Growth and Household Debt

In the late 1990s, measured by indicators such as Tobin's Q (the ratio of the market value of assets to the replacement cost of assets) or price-earning ratios, the U.S. experienced the greatest stock market bubble in history. After the burst of the stock market bubble, the U.S. general government balance moved swiftly from a surplus of 1.4 percent of GDP to a deficit of 4.6 percent of GDP between 2000 and 2003, or a expansionary swing of 6 percent of GDP, and the U.S. Federal Reserve cut the short-term interest rate by 5.5 percentage points.

Without the drastic loosening of the fiscal and monetary policy, the U.S. economy would have sunk into a deep recession and possibly prolonged stagnation. Since 2001, the U.S. economy has stabilized and recovered, growing about twice as fast as the Euro-zone and Japan. However, the U.S. economy continues to suffer from serious internal and external imbalances.

Table 3 presents the composition of the U.S. aggregate demand as well as the contribution to the U.S. economic growth by different components of demand between 1960 and 2004. The U.S. economic growth has clearly been led by the expansion of consumption. Since the 1960s, the average consumption share has increased through successive business cycles (the two shorter business cycles in the 1970s are combined into one period), reaching an unprecedented high of 70 percent in the early 2000s. Since the 1980s, private consumption has accounted for more than

70 percent of the U.S economic growth. In the early 2000s, the contribution of private consumption rose to nearly 80 percent.

However, the impressive expansion of consumption has not been accompanied by a corresponding increase in the real incomes of the majority people. Figure 3 presents the indices of the U.S. private sector workers' real wage and the real median family income. The real wage fell steadily between 1973 and the mid-1990s. Despite some very limited recovery during the late 1990s economic boom, the real wage is now no higher than in the mid-1960s and remains about 15 percent lower than the post WWII peak in 1972. Between the late 1970s and the early 1990s, the real family income basically stagnated. It rose by about 17 percent between 1993 and 2000 but has since then again declined. Between 1977 and 2004, the real median family income rose by only 14 percent over 26 years, with an average annual growth rate of only 0.5 percent.

As incomes stagnate, the expansion of the U.S private consumption has been financed largely by surge in the household debt. Figure 4 shows the level of U.S personal sector (mainly including the households) debt in relation to the disposable income. The debt-income ratio has risen steadily since 1985 and has now reached the unprecedented level of 125 percent.

The rise of the household debt has taken place against the background of successive asset bubbles. After the burst of the stock market bubble, the U.S. Federal reserve has kept the real short-term interest rate below or near zero, flooding the financial markets with liquidity, leading to what has become the greatest housing bubble in the world economic history. According to *The Economist* magazine, the total value of residential property in advanced capitalist countries rose by more than \$30 trillion (to over \$70 trillion) over the past five years, an increase equal to the total GDP of these countries.

Between 1997 and the first quarter of 2005, the house prices rose by 192 percent in Ireland, 154 percent in Britain, 145 percent in Spain, 114 percent in Australia, 87 percent in France, and 73 percent in the U.S.. Measured by the housing prices to rents ratio, the U.S. residential property is now overvalued by 35 percent. To bring the U.S. prices to rents ratio back to “fair value”, the U.S house prices need to stay flat for 12 years even if rents in average rise by 2.5 percent a year. Therefore, it is very likely that house prices will have to fall in the coming years (*The Economist*, June 16th, 2005, “The Global Housing Boom: In Come the Waves”).

If the house prices fall, the U.S. households would suffer from declining wealth, forcing them to reduce the level of debt. Even if the house prices do not fall, the households will not be able to afford ever-rising debt service burden and will have to repair their balance sheets at some point.

Figure 5 presents the alternative measures of U.S. households’ debt service burden. Despite falling interest rates in recent years, as the household debt-income ratios keep rising, all three measures of household debt service burden (the debt service to disposable income ratio, the broader financial obligations to disposable income ratio, and the mortgage payments to income ratio) now are at the highest or nearly the highest levels on record.

Figure 6 presents the financial balances (the difference between the disposable income and the sum of consumption and investment spending) of the U.S. private sector, the government sector, and the current account, all in ratios of GDP. The figure illustrates the relations between the three balances. It is an accounting identity that the current account balance equals the sum of the private sector balance and the government sector balance.

Until 1996 the U.S. private sector (including the personal sector and the business sector) balance had never fallen into negative territory. In the 1960s, the private sector surplus fluctuated around 2 percent of GDP. The private sector surplus briefly reached 6 percent of GDP in the deep recessions of 1975 and 1982, and stayed above 4 percent of GDP in the early 1990s. However, the private sector balance sank deeply into the negative territory in the late 1990s, reaching an unprecedented deficit of 7.4 percent of GDP in 2000. After the burst of the stock market bubble, the business sector sharply reduced investment spending, and the overall private sector balance moved back to near balance (but not back to the historical averages). But it has since then again entered the negative territory.

Figure 7 presents the U.S. personal sector saving rates. The saving rate, measured as the ratio of savings to disposable income, fluctuated between 8 and 10 percent from the 1960s to the mid-1980s. It dropped sharply during the 1990s and has continued to fall since 2000, now staying at about 1 percent. The personal sector financial balances, as ratios of disposable income, also fell sharply during the 1990s. Unlike the business sector, the personal sector did not repair its balance sheets after 2000 and the personal sector balance has stayed deeply in the negative territory.

Table 4 projects the U.S. personal and government sector debt under alternative scenarios. Under the scenario of “Status Quo”, assume the economy grows sufficiently rapidly to keep the unemployment rate constant and the growth continues to be led by private consumption and the rising household debt, the personal sector debt-income ratio would rise to 174 percent by 2015 and to 210 percent by 2025. In other words, if these trends are allowed to continue, even without a rise in interest rate, the U.S. households’ debt service burden (as a ratio of disposable income) would rise sharply by 40 percent between now and 2015 and by 69 percent between now and 2025, sucking up 18 percent and 22 percent of households’ total disposable income respectively (compared to the current ratio of about 13 percent).

The U.S. households cannot afford ever-rising debt service burdens indefinitely and will have to repair their balance sheets at some point. If the housing bubble collapses, dampening the households' unrealistic expectation of wealth growth, the personal sector balance could correct rapidly and drastically, precipitating the U.S. economy into a deep recession. But the U.S. economy could sink into a prolonged stagnation even if the personal sector balance corrects slowly and "orderly".

In other scenarios, we assume the personal sector balance corrects gradually over the ten years to 2015, allowing the personal sector balance improving from a deficit of 4.3 percent of disposable income in the initial period to a surplus of 2.5 percent in 2015. In the second scenario, the government sector deficits and debt expand to allow for rapid economic growth. However, under this scenario, the government deficit would have to rise from 3.5 percent of GDP in the initial period to 9.2 percent of GDP by 2015, and rise further to 9.8 percent of GDP by 2025; the government debt would have to rise from 45 percent of GDP in the initial period to 75 percent of GDP by 2015, and to 116 percent of GDP by 2025. These trends are neither desirable nor sustainable.

If the government sector deficit rises by 0.5 percent of GDP a year over the ten years to 2015, just enough to offset the correction of the personal sector balance, holding the trade deficit constant, the government sector debt would rise to 76 percent of GDP by 2015 and 116 percent of GDP by 2025. Further, to hold the trade deficit constant (without change in import propensity of the U.S. and the rest of the world), the U.S. economy needs to slow down to grow at the same pace as the rest of the world, or at only 2.5 percent a year. Given the current trend growth of U.S. productivity, such a growth rate implies U.S. unemployment rate rising at about one percentage point a

year.⁵ If one assumes a higher growth rate for the rest of the world (3.3 percent a year), the U.S. government debt would still rise to 72 percent by 2015 and 107 percent by 2025.

Finally, under a set of ideal assumptions, the U.S. personal sector deficit and trade deficit may be corrected through a surge in exports growth. In the scenario of “export-led growth”, the personal sector debt-income ratio rises to 145 percent by 2015 and then falls to 131 percent by 2025. The government debt rises slowly and would eventually stabilize around 66 percent of GDP (assuming government deficit being 3.5 percent of GDP and nominal GDP growth rate being 5.3 percent). The U.S. trade deficit shrinks from 5.7 percent of GDP to 0.7 percent of GDP.

However, for such a “best of all possible” scenario to be realized, the rest of the world’s propensity to import from the U.S. needs to rise by 65 percent, from 0.04 in the initial period to 0.066 by 2015, and keep rising thereafter, while assuming there is no increase in the U.S. imports propensity. By comparison, between 1990 and 2003, the rest of the world’s imports propensity rose by 18 percent and the U.S. imports propensity rose by 29 percent. Therefore, it is not clear how such an expansion of U.S. exports can be accomplished. If it is to be accomplished through a large depreciation of the U.S. dollar, there is a significant risk it could lead to a general dollar collapse.

⁵ One may be surprised by the similarities of the government debt ratios under the two scenarios of “government deficit-led growth” and “constant trade deficit”. This is because under the “constant trade deficit” scenario, although the government deficit rises by a smaller amount in relation to GDP, the positive effects on the government debt are totally offset by the slower economic growth.

A further problem is that, as much of the world suffers from insufficient domestic demand and economic stagnation, which part of the rest of the world can absorb the surge in the U.S. exports without undermining their own economies?

China: Unsustainable Investment-Led Growth

The rapid expansion of the Chinese economy has been one of the most significant developments in the global economy over the past quarter of a century. If the U.S. economy is going to slow down significantly when the household sector starts to repair its balance sheet, can China take over the U.S. role to lead the world economy from both the supply-side and the demand-side?

Since the 1990s, the benefits of China's rapid economic growth have become increasingly unevenly distributed among different sections of the population. Privatization, rising unemployment, growth of corruption, and stagnation of agricultural incomes have led to rising inequality in income and wealth distribution. In fact, in recent years substantial sections of the working population have suffered from absolute declines in living standards (Yang and Xin 2002; Fan 2002, 2003; Zhu 2004; Xie 2005a).

The stagnation and the relative decline of workers' and peasants' incomes set constraints on the purchasing power of the great majority of the population and limit the growth of mass consumption. A survey in 2001 found that the consumption propensity (ratio of consumption over income) falls progressively from the poorest 20 percent of the population to the richest 20 percent of the population. The consumption propensity ratio is 0.919, 0.840, 0.809, 0.765, and 0.646 for the poorest, the second, the third, the fourth, and the richest quintile group of population respectively. It is calculated that because of widening income inequality over the 1990s, total private consumption in 2001 was 338.9 billion Yuan (US \$40.9 billion)

lower than it otherwise would be, an equivalent of 7.4 percent of total private consumption or 3.5 percent of GDP (Qian 2003).

Table 5 presents the changing structure of the Chinese economy. In striking contrast to the U.S. economy, consumption has fallen steadily as a share of China's GDP. Between the early 1980s and the early 2000s, private consumption as a share of GDP fell from 52 percent to 45 percent, or by 7 percentage points. Public consumption has stayed between 12-13 percent of GDP. As a result, the growth of the Chinese economy has been increasingly led by investment (fixed capital formation) and exports. The share of investment in GDP rose from 28 percent to 40 percent and the share of exports more than tripled from 8 percent to 26 percent. During 2001-2003, private consumption contributed to only 30 percent of the GDP growth. By contrast, investment contributed to nearly 60 percent and exports contributed to nearly 50 percent of the GDP growth in this period.

Since 2003, the global economy has experienced a liquidity boom, leading to rapid accumulation of foreign exchange reserves by many central banks. China has led the reserves accumulation. In 2004, China's foreign exchange reserves increased by \$150 billion to more than \$600 billion. As the Chinese central bank issues domestic currency in exchange for foreign currencies, the rapid accumulation of reserves has led to explosive increase in money supply and credits expansion that have in turn fueled an investment bubble. Investment could easily surpass 50 percent of GDP in 2005 (Xie 2005b).

Figure 8 presents China's investment to GDP ratios and the economic growth rates between 1980 and 2004. Since the 1980s, the Chinese economy has experienced three investment-led booms. The first peaked in 1987 and 1988; the second peaked in 1992 and 1993; the third investment-led boom started in 2002 (when the investment ratio exceeded the previous peak in 1993) and could soon reach its peak.

Excessively high investment leads to falling capital productivity. Figure 9 presents alternative measures of China's capital productivity and the profit rate in the Chinese industrial sector. Capital productivity (the ratio of GDP to economy-wide net stock of fixed capital, data available since 1991) has been falling steadily since the early 1990s. Between 1993 and 2004, the economy-wide capital productivity fell by about 26 percent. The marginal capital productivity (the ratio of economic growth rate to investment-GDP ratio) fell sharply between 1992 and 1999, from 0.44 to 0.20, and has since fluctuated between 0.20 and 0.22. Unlike in two previous booms, China's current investment boom was not preceded or accompanied by a sharp increase in marginal capital productivity. The current level of marginal productivity in fact implies falling capital productivity.⁶

Falling capital productivity leads to falling rate of return on capital, given constant profit share in output. China's industrial sector profit rate (the ratio of pre-tax profit to replacement cost of net stock of fixed capital) fell sharply during the second half of the 1990s, fell again between 1993 and 1998, but has since then experienced a dramatic recovery. Two factors have probably contributed to the rapid increase of the profit rate since 1998. First, in the initial period of the investment boom, higher level of investment helped to improve capacity utilization in the industrial sector that in turn led to higher profit share (as wages and commodity prices did not immediately catch up). Secondly, there has been a substantial fall in the interest rates. Between 1998 and 2003, state banks' interest rate on one-year business loans fell from 8.64 percent to 5.31 percent. Given the Chinese industrial enterprises' high debt-equity

⁶ See Appendix on the relations between investment ratio, capital-output ratio (the inverse of capital productivity), and rate of return on capital.

ratio (about 1.5), the falling interest rates have had a significant positive impact on industrial profitability.⁷

However, as the investment ratio keeps rising, beyond certain point, it starts to drive up costs of energy and materials and creates increasingly larger stock of excess capacity. The central bank starts to raise the interest rates to control economic overheating. Now there is evidence that profit rates are falling in many industries. As cash flows diminish and expectations of future conditions deteriorate, eventually businesses will have to reduce investment, leading to economic slowdown. The danger is that when the current investment boom ends, China may find itself left with huge stock of excess capacity and the banking sector will have to deal with massive increase in non-performing loans (Roubini and Setser 2005a; Xie 2005c; Yam 2005).

In China's last investment downturn, between 1993 and 1998, the investment-GDP ratio fell from 38 percent to 35 percent, the industrial sector profit rate fell from 4.9 percent to 2.1 percent (or falling by about 57 percent), and the economic growth rate fell from 13.5 percent to 7.8 percent. In the current investment cycle, the economic growth rate would probably peak below 10 percent. By how much would China's investment ratio and the economic growth rate need to fall before stabilization?

It is of course not easy to decide where the "equilibrium" investment ratio should be. However, one reasonable criterion is that at "equilibrium", the investment-GDP ratio should be consistent with a stable capital productivity (which is in turn consistent with a reasonable rate of return on capital). Table 6 projects alternative scenarios of

⁷ Our profit rate measure is based on the net stock of fixed capital, the value of which is actually roughly equal to the value of equity of the Chinese industrial enterprises. A fall of interest rate by about 3 percentage points on a debt-equity ratio of 1.5, therefore directly raises the profit rate by about 4.5 percentage points.

China's investment landing. We examine two possibilities: the investment ratio returns to 35 percent or 40 percent (to stabilize capital productivity at the level in 2000 or 2004 respectively). We assume that the landing takes place over an extended period of ten years and the non-investment economy maintains rapid growth (with annual growth rate between 7.5 percent and 9.5 percent). In other words, we assume "soft landing" scenarios.

In all scenarios, investment growth must fall sharply from the current growth rate of about 20 percent a year to between only 1 percent and 5 percent a year over the landing period. The economic growth rate would fall significantly to around 5 percent or 6 percent a year if the non-investment economy manages to grow at 7.5 percent or 8.5 percent a year despite the sharp decline of investment growth.

Not only that China's slowdown could have a direct, significant negative impact on the world economic growth, the correction of China's excessive investment could lead to further widening of global macroeconomic imbalances. Without substantial changes in China's current pattern of income and wealth distribution, the great majority of the Chinese population would continue to suffer from insufficient purchasing power. As a result, consumption is likely to lag behind the overall economic growth. In that case, if China's investment falls relative to GDP, the shortfall will have to be made up by net exports. In fact, China's current account surplus is now on track to reach 6 percent of GDP (Goldstein and Lardy 2005).

China is certainly not going to replace the U.S. as the world's another consumer of the last resort. Moreover, if China needs to generate rising trade surpluses to sustain economic growth, who is going to absorb the increase in China's trade surpluses? If it were to be the (non-U.S.) rest of the world, it would further depress the effective demand in the rest of the world and deepen global stagnation. If it were to be the U.S., it would contribute to the further widening of the U.S. current account deficits.

4. Neoliberalism and the U.S. Current Account Deficits

The large and rising U.S. current account deficits reflect the structural contradictions of the neoliberal global economy. Under neoliberalism, much of the world has suffered from insufficient domestic demand and stagnation. But the U.S. has managed to grow at relatively rapid pace and has been the greatest contributor to world economic growth measured by market exchange rates. As the U.S. tends to grow more rapidly than the rest of the world (based on market exchange rates), other things being equal, the U.S. imports tend to grow more rapidly than the exports, leading to rising trade and current account deficits.

Further, under neoliberalism, trade globalization has made major advances, and imports propensity (the ratio of imports to GDP) has tended to increase in both the U.S. and the rest of the world. Trade globalization has the interesting effects of accelerating the expansion of the U.S. current account deficits. It can be easily demonstrated that if the U.S. imports propensity and the rest of the world imports propensity rise at the same rate, then other things being equal, the U.S. trade deficit to GDP ratio would rise. In fact, the U.S. imports propensity has risen more rapidly than that of the rest of the world.

Between 1990 and 2003, the U.S. trade deficit to GDP ratio rose from 1.3 percent to 4.5 percent. We calculate that the difference in growth performance between the U.S. and the rest of the world contributed to about 22 percent of the increase in the current account deficit ratio and trade globalization (the net effects of rising imports propensity of the U.S. and the rest of the world) contributed to about 63 percent.⁸

⁸ For the determinants of the current account deficit and how to account for the contribution of different factors to the growth of the U.S. deficit, see Appendix.

The U.S. current account deficits have played an indispensable stabilizing role in the neoliberal global economy. Lack of domestic demand, many economies (especially Japan and other Asian economies) have depended on expansion of exports to sustain economic growth and have been running large current account surpluses. Without the U.S. running large and rising current account deficits, the Asian surpluses have to be absorbed by other parts of the world. The subtraction of demand from the rest of the world could lead to devastating outcomes. Alternatively, Japan and other Asian economies would have to accept much smaller or no trade surpluses. Without the support of domestic demand and deprived of external demand, these economies could sink into stagnation or depression. However, as indispensable as the U.S. current account deficits are, the large and rising deficits lead to increasingly higher net foreign liabilities in relation to the U.S. GDP. Neither the deficits nor the foreign debt can keep rising forever.

The U.S. current account deficit now stands at about 6 percent of GDP and the net foreign liabilities are approaching 25 percent of GDP. Figure 10 presents the change in the U.S. net international investment position from 1976 to 2004. Martin Wolf, the *Financial Times* economics columnist, points out that if the current trends of the U.S. imports and the exports continue, the U.S. current account deficit could approach 10 percent of GDP and net foreign liabilities could approach 120 percent of GDP in a decade (Wolf 2005).

Table 7 reports our projection of the trajectory of the U.S. current account deficits and net foreign liabilities under alternative sets of assumptions. Assume there is no change in the U.S. dollar exchange rate, all six scenarios lead to ever-rising current account deficits and somewhere between very and extremely high levels of foreign debt. Even if there were to be a major acceleration of the growth rate in the non-U.S. world economy, the U.S. net foreign liabilities would still rise to 66 percent by 2015 and 101 percent by 2025.

The first five scenarios assume that the U.S. consistently enjoys an interest rate advantage, with the U.S. foreign assets having a rate of return 1 percentage point higher than the U.S. foreign liabilities. However, it is quite reasonable to think that non-U.S. investors will not permanently accept an inferior rate of return and as the U.S. dollar tends to depreciate, foreign investors will demand compensation in the form of higher interest rates. In scenario six, we assume that the rate of return on the U.S. foreign liabilities equals that on the U.S. foreign assets. Such a minor adjustment turns out to have substantial effects, suggesting that even a small increase in the interest rate could significantly worsen the U.S. deficit and debt situation.

Although no one can decide where exactly the absolute limits on the U.S. deficit and debt would be, there is no question that these deficit and debt ratios are way out of the historically normal range. Among the advanced capitalist countries, only New Zealand and Ireland, two small countries, have ever run current account deficits of over 5 percent of GDP for more than five years. New Zealand is the only advanced capitalist country that has ever had a stock of net foreign liabilities more than 100 percent of GDP, a ratio that the U.S. is set to surpass on current trends before 2025.

There has been intense debate on the nature of the U.S. current account deficits and the impact on the global economy when the deficits eventually need to be corrected. The U.S. government's official position is that the deficits are largely of a benign nature and any adjustment of the deficit is likely to take place in a gradual, orderly manner and have little negative consequences. For example, the Federal Reserve Chairman Alan Greenspan argues that as the global financial markets deepen, it becomes easier to finance large and persistent deficits and the U.S. is particularly well placed to manage smoothly a current account adjustment (Greenspan 2003; 2004).

However, Obstfeld and Rogoff (2005) point out that ultimately it is the goods markets not the financial markets that bear the burden of adjustment. When the U.S. current account deficits start to correct, physical resources have to be transferred from the non-tradable sector to the tradable sector in the U.S. and from the tradable sector to the non-tradable sector in the rest of the world, a process that can be quite painful.

Dooley, Folkerts-Landau, and Garber (2003) of Deutsche Bank argue that since the global economy is effectively on a U.S. dollar standard (they refer to it as the Bretton Woods II arrangement) and the East Asian economies (and in the future, South Asia) are willing to accumulate U.S. dollar assets to support their strategies of export-led growth and absorb excess labor of hundreds of millions of rural workers, the U.S. deficits can be sustained for a decade or longer until East and South Asia graduate from “economic periphery.” However, as Roubini and Setser (2005b) argue, there is an intrinsic tension between the growing needs of the U.S. for financing and the ever-larger capital losses to which the Asian central banks are exposed, and the enormous reserves accumulation required to sustain the Bretton Woods II system pose growing macroeconomic risks to the Asian economies (especially the Chinese economy).

Ben Bernanke, the current head of the President’s Council of Economic Advisors and a former member of the U.S Federal Reserve Board, argues that the U.S. current account deficit derives from a “global savings glut” (Bernanke 2005). Bernanke and others argue that the U.S. current account deficits have played an indispensable role in the current global economy by absorbing the “excess savings” generated in the rest of the world. Without the U.S. running large current account deficits, the global economy would suffer from a general contraction in effective demand and sink into deep recession (Brittan 2005). In a way, Bernanke’s argument captures the fact that the U.S. current account deficits reflect the structural insufficiency of aggregate demand of the current global economy, which, Bernanke and other mainstream

economists fail to mention, in turn results from the structural contradictions of neoliberalism.

While we totally agree that the U.S. current account deficits have played an indispensable stabilizing role in the neoliberal global economy, this shall not be confused with the argument that the large and ever-rising U.S. current account deficits therefore can be sustained indefinitely. One may want to draw an analogy between the handling of the current global imbalances and macroeconomic stabilization in a domestic context. In a domestic context, if the economy suffers from insufficient aggregate demand (and there is a risk of recession), the government should run fiscal deficits to absorb the excess savings generated by the private sector. The government fiscal balance should return to surpluses or sustainable positions as the economy returns to vigorous expansion and the rising private sector spending absorbs the excess savings. Using this analogy, it might appear that the U.S. current account deficits help to stabilize the global macro-economy just like the government deficits help to stabilize a closed economy, and the U.S. current account should smoothly return to sustainable positions when the global economy resumes vigorous expansion.

However, there are important differences between the two situations. In a domestic context, the government can run large deficits in periods of recession because the government debt is guaranteed by the future government tax revenues, which in principle the government can always generate by exercising its enforcement power. As the economy returns to vigorous expansion, higher levels of incomes and output would necessarily bring about higher tax revenue. The credibility of the government debt rests upon the belief of the private sector that it is never beyond the

government's capacity to make interest payments and eventually pay back the principals.⁹

By contrast, the credibility of the U.S. foreign debt is by no means beyond doubt. The U.S. debt is ultimately guaranteed not by the taxes paid by the rest of the world to the U.S. but by the net exports the U.S. can generate in the future. The amount of net exports the U.S. can generate depends on the production capacity of the U.S. tradable sector (which now accounts for only about a quarter of the U.S. GDP). If the deficits the U.S. has been running has been used for the purpose of productive investment that helps to expand production capacity in the tradable sector, then it may be plausible for one to argue that the expanding U.S. capacity to export would eventually generate sufficiently large flows of net exports to pay back the U.S. foreign debt. However, in fact, investment has been falling as a share of the U.S. GDP, and it is the consumption share that has increased over time. The U.S. current account deficits have been used to finance excessive consumption rather than expansion of production capacity.

The U.S. net foreign liabilities now amount to about 25 percent of the U.S. GDP, about 100 percent of the total U.S. tradable goods production, or about 250 percent of the U.S. total exports, and would rise at a rate of about 4.5 percent of GDP a year if there is no change in the U.S. dollar exchange rate. Just like towards the end of the Bretton Woods System, it was plainly clear to the world that there was no way for the U.S. to ever re-build its gold reserves to sufficient levels to exchange for the dollars

⁹ Even in a domestic context, a government cannot allow deficits and debt rising permanently without eventually suffering serious financial consequences. If a government has accumulated very large stock of debt over a prolonged period of recession and stagnation (like the current Japanese government), then there is a real danger when the economy actually returns to vigorous expansion and the private sector surplus falls sharply, the need for the government to finance the huge stock of accumulated debt would lead to either a surge in the interest rate or run away inflation.

circulating outside of the U.S.; if the current trends of the U.S. current account deficits continue, soon it will be plainly clear to the world that there is no way for the U.S. to ever generate sufficient amount of net exports to pay back its accumulated liabilities within a reasonable length of time.

There are fundamental reasons why the U.S. current account deficits cannot rise indefinitely in relation to its own and the world GDP. First, there is the global savings limit. As the U.S. current account deficit rises in relation to GDP and the U.S. economy grows more rapidly than the rest of the world, for the U.S. deficits to be financed, the rest of the world must generate increasingly larger financial surpluses in relation to its own GDP (in fact, the U.S. current account deficit now already absorbs about 75 percent of the total financial surpluses of all the world's surplus countries). That is, the rest of the world has to spend an increasingly smaller proportion of its income on its own consumption and investment. This cannot go on indefinitely.

Theoretically, the process may continue until eventually all of the "excess savings" in the rest of the world have been absorbed and the global economy approaches full employment. However, if the U.S. current account deficits are actually allowed to keep rising until the approaching of global full employment, the current trends suggest that by that time the rest of the world must have accumulated many trillions of dollars of reserve assets that would equal a huge proportion of the U.S. GDP.

One is compelled to ask: what would the rest of the world do with the many trillions of dollars if they find themselves in a situation of near full employment? There would be no more reason for them to accumulate more reserves in order to further stimulate the economy through exports expansion. If the economy approaches full employment, one would expect the emerging of many bottlenecks due to the shortage of certain inputs as well as rising inflationary pressure. Therefore, there would be strong reasons for the rest of the world to unload their already accumulated reserves to

finance imports of crucial inputs and to contain inflationary pressure. Since it would be plainly clear that the net exports the U.S. can conceivably generate would in no way be sufficient to balance the unloading of the accumulated reserves, there would be strong pressure on the rest of the world to unwind their “positions” and try to “exit” first before everyone else. In that case, it is very difficult to think how a general dollar collapse can be avoided. It may not be in the best interest of the U.S. to wait until its current account deficits actually exhaust all of the rest of the world’s excess savings.¹⁰

As a practical matter, the rising U.S. current account deficits and foreign debt are likely to reach their limits long before the hypothetical scenario of global full employment is approached. There is the portfolio diversification limit. As the U.S. net foreign liabilities rise in relation to the U.S. and the world GDP, to accommodate these trends, global investors must allow the U.S. dollar-denominated assets to account for a growing proportion of their total assets. However, this exposes the global investors to ever-rising risks associated with a single category of assets (one particular risk is that of capital losses that would occur when the U.S. dollar depreciates against other currencies).¹¹ In addition, investors have to accept increasingly larger foregone profits as the U.S. assets offer lower returns than other categories of assets.

¹⁰ After all, the Bretton Woods System collapsed when all the advanced capitalist economies were approaching full employment and under inflationary pressure. At that time, the U.S. remained the worlds’ largest net creditor. Obviously, it would be much more difficult to manage a similar collapse from the position of a net debtor with a stock of net liabilities indisputably the largest in absolute as well as relative terms in the world economic history.

¹¹ See Appendix for a more detailed illustration of the argument that the rest of the world must allow the U.S. assets to account for a growing proportion of their total assets if the current trends continue.

In recent years, the world's central banks have played an increasingly important role in financing the U.S. current account deficits. However, the central banks are also exposed to rising risk of capital losses as the U.S. dollar reserves become increasingly larger. Rapid accumulation of foreign exchange reserves tends to result in excessive expansion of money supply and credits, leading to rising inflation or asset bubbles. These macroeconomic problems set limits to central banks' currency interventions.

According to the Bank for International Settlements, the dollar-denominated assets now account for 64 percent of the world's total foreign exchange reserves, more than double the U.S. share of the world economy (Roach 2005). There has been growing pressure on the central banks (especially the Asian central banks) to diversify away from the U.S. dollar.¹²

Further, there is the domestic debt limit. The U.S. current account deficit has its domestic counterparts. It equals the sum of financial balances of the private sector and the public sector. Therefore, for the U.S. current account deficit to keep rising in relation to GDP, either the U.S. private sector or the U.S. government or both must run increasingly larger financial deficits in relation to their incomes. Neither the private sector nor the public sector can run such large and ever-rising deficits indefinitely.

¹² According to the Bank of International Settlements, central banks have already taken steps to cut the share of the U.S. dollar assets in their deposits. Between 2001 and 2004, the Middle Eastern central banks reduced the share of dollar assets from 75 percent to 61.5 percent and the Asian central and commercial banks reduced the share from 81 percent to 67 percent. The Chinese banks reduced the dollar share from 83 percent to 68 percent. The Indian banks reduced the dollar share from 68 percent to 43 percent (*Financial Times*, March 8, 2005, "Asian Banks Cut Exposure to Dollar").

In addition, there is the political limit to the rise of U.S. current account deficits. As Dumenil and Levy (2005) point out, if the current trend of U.S. deficit and debt continues, the U.S. will have to give away a growing proportion of its capital incomes to the rest of the world. Or, as the billionaire investor Warren Buffett suggested, the U.S. would be reduced to a nation of sharecroppers dependent on foreign property owners (*Financial Times*, March 7, 2005, “Buffet Warns on US Trade Deficit”). These outcomes could have unacceptable political and social implications.

If the U.S. current account deficits and foreign debt cannot keep rising forever, eventually they have to be corrected. The question is how and under what circumstances the correction takes place, and what the consequences will be.

In theory, the U.S. current account deficits can be corrected if the rest of the world manages to grow more rapidly, allowing the U.S. exports to grow more rapidly than the imports, returning the current account to balance. However, under neoliberalism, the Euro-zone, Japan, and many other economies have suffered from persistent stagnation. Without fundamental changes in economic and social institutions that promote domestic demand expansion, the performance of these economies is unlikely to improve significantly (Bush 2003). On the other hand, while China and other Asian economies have grown more rapidly, rising inequalities in income and wealth distribution in these economies have prevented mass consumption from keeping pace with economic growth. As a result, these economies have depended on rising trade surpluses and exports to the U.S. markets to sustain rapid economic growth. Without some fundamental changes in the character of growth, the more rapidly growing Asian economies cannot contribute to the correction of the U.S. current account deficits (Jomo 2003). In addition, as is argued above, the growth of the U.S. exports is constrained by the production capacity of its tradable sector.

For the U.S. current account deficits to be corrected, changes in relative prices are required to re-allocate resources between the tradable and the non-tradable sectors in the U.S. as well as the rest of the world. Given the size of the U.S. current account deficit, some large exchange rate adjustments are inevitable. Obstfeld and Rogoff (2005) estimate that under the assumption of flexible prices, the real U.S. dollar exchange rate needs to fall by 33 percent to correct the U.S. current account deficit by 5 percent of GDP over one to two years, and by about 16 percent if the correction takes place over five to seven years (this is in addition to the 10 percent depreciation of the U.S. dollar that has taken place since 2002). They point out that the fall of nominal exchange rate could be much larger (about twice as large) and there is a significant risk of overshooting if nominal prices are sticky.

Any given amount of dollar depreciation would only have a one-time effect. If the U.S. economy keeps growing more rapidly than the rest of the world, the deficit-GDP ratio would resume rising at any given exchange rate. Alternatively, the U.S. dollar must keep depreciating just to stabilize the deficit-GDP ratio. But the dollar cannot keep depreciating without eventually causing a general collapse.

Under the optimistic scenario, a large but gradual, orderly depreciation of the U.S. dollar would bring the U.S. current account back to near balance. But then to stabilize the current account, the U.S. must not be able to maintain its current, relatively rapid pace of growth. If there is not a significant improvement in the rest of the world's trend growth rate, then the U.S. growth rate needs to fall to about the same as that in the rest of the world, that is, about 2.5 percent a year, which implies rising unemployment.

However, the "optimistic" scenario may not be realized. The large exchange rate adjustment required to correct the U.S. current account deficits carries the significant risk of large overshooting and a general collapse. Once it becomes apparent to the

global investors that the U.S. dollar is a one-way bet, nothing can prevent the investors from competing with one another trying to “exit” first. The greater is the stock of the outstanding U.S. foreign liabilities, the greater is the risk the deficit correction process could get out of control.

Under neoliberalism, much of the world economy has suffered from insufficient aggregate demand and has depended on exports to the U.S. to sustain economic growth. As is argued above, the U.S. current account deficits have played an indispensable stabilizing role for the neoliberal global economy. If the U.S. current account deficits are corrected, whether under the “optimistic” scenario or some other scenarios, which of the other large economies could act as the world’s “consumer of last resort”? Without such a “consumer of last resort”, as the structural forces under neoliberalism continue operating to depress the global effective demand, what else could act as the offsetting force and keep the neoliberal global economy afloat?

5. Long Waves and Stages of Capitalist Development

Capitalism is often seen as an economic and social system that is by nature dynamic and revolutionary. It has been able to adapt to ever-changing historical conditions and preserve its basic, defining institutional features such as private ownership of the means of production, wage labor, production for profit, and the incessant drive for accumulation, through successive waves of technological, organizational, as well as institutional innovations.

Arguably, over the lifetime of capitalism, it has gone through several stages of development. Within each stage of development, there were certain institutions that tended to promote capital accumulation and the effective functioning of the capitalist economic, political, social, and ideological systems. The institutions were appropriate given the specific historical conditions prevailing at the time. However, overtime and exactly because of the successful operations of the existing institutions, the underlying

economic, social, ideological, and political conditions tended to change and the existing institutions became increasingly inappropriate.

Beyond certain point, the prevailing institutions began to undermine capital accumulation, causing dysfunction of the economic, political, social, and ideological systems and leading to growing, increasingly more intense conflicts between different states and social classes. Eventually, these conflicts would produce a new set of relations between states and classes, allowing a new set of institutions to emerge and prevail, opening a new stage of capitalist development.¹³

For example, after WWII, a new set of institutions emerged, including Keynesian macroeconomic policies, nationalized enterprises and industrial policies, pervasive government regulations of product, labor, and financial markets, compromise between big corporations and organized labor, transnational corporations, promotion of economic planning and import-substitution industrialization in the periphery and semi-periphery, an international monetary system based on fixed exchange rates with a central role for the U.S. dollar, as well as U.S. political and military hegemony.

During the following decades, these institutions were very effective in promoting world-wide accumulation and economic growth as well as delivering some improvement in living standards for the majority of the world population. However, the successful operations of these institutions tended to strengthen the bargaining power of the working classes and the peripheral states. The successful intervention of the states in capitalist economies tended to raise the population's expectation and encourage different social groups to demand increasingly more extensive state services. The overseas expansion of U.S. transnational corporations and the financial expenses required to maintain U.S. political and military hegemony in the world had

¹³ On different theories of stages of capitalist development, see Albritton et al. (2001).

the ironic effects of undermining the U.S. balance of payment as well as the then existing international monetary system.

By the late 1960s, there were growing signs of dysfunction and instabilities. The period between the late 1960s and the early 1980s saw falling profit rates, slower pace of accumulation, financial turbulence, as well as political, social, and ideological turmoil. The intense conflicts between classes and states eventually paved the way for the rise of a new stage of capitalism – the era of neoliberalism.¹⁴

Neoliberalism has been successful in generating power and wealth for the world's ruling elites. In the meantime, it has led to stagnation, rising inequalities, falling living standards, and major financial crises in much of the world economy. However, under neoliberalism, some parts of the world (China, India, U.S., and other Anglo-Saxon countries) have had rapid or relatively rapid economic growth. In the U.S., despite falling and stagnating real incomes for the majority of the population, economic growth has been led by consumption expansion financed by ever-rising household debt. In China, as mass consumption lags behind, growth has been driven by investment and exports.

The uneven growth performance of the neoliberal global economy has led to increasingly alarming global imbalances, finding expression in three unsustainable trends: the debt-driven U.S. consumption expansion; China's excessive investment expansion; and the large and rising U.S. current account deficits. When these trends eventually have to be reversed or corrected, there is a serious danger that the neoliberal global economy would either sink into prolonged stagnation or precipitate into a depression. Will the coming world economic upheavals bring about the end of

¹⁴ On the rise and fall of the big government capitalism in the postwar era, see Bowles, Gordon, and Weisskopf (1990); Marglin and Schor (1990); and Armstrong, Glyn, and Harrison (1991).

neoliberalism and result in the emerging of a new set of economic, political, and social institutions?

The profit rate is a central indicator of capitalist accumulation. In the past, troughs in profit rate long waves have coincided with major economic, political, and social crises that led to the transition from one set of capitalist institutions to another.¹⁵ Figure 11 presents the average profit rates between 1870 and 2002 and the average net profit rates between 1900 and 2002 (shown in ten-year moving averages) of three leading capitalist countries – U.K., U.S., and Japan. The profit rate is the ratio of broadly defined profit (net domestic product less wages and taxes) over the stock of capital. The net profit rate is the ratio of net profit (profit less rent and net interests) over the stock of capital, which better reflects the rate of return for industrial capital. The average profit and net profit rates are calculated by weighting each country with its stock of capital (at constant 1990 international dollars).

Since the mid-19th century, there have been four long waves in the long-term movement of the profit rate (treating the WWII period and the postwar “golden age” as one full long wave) and since 1900, the net profit rate has experienced three long waves. The two sets of profit rate long waves largely parallel each other. The successive long waves may be named as the competitive capitalist long wave (characterized by small government and family enterprises), the monopoly capitalist long wave (characterized by small government and the rise of big corporations), the big government capitalist long wave, and the neoliberal capitalist long wave, to reflect their main historical and institutional features.

¹⁵ On a discussion of the relationship between institutional changes, stages of capitalist development, and the profit rate long waves in the U.S. context, see Li and Hanieh (2005).

The second half of the competitive capitalist long wave (between 1874 and 1897), from peak to trough, lasted for 23 years. The monopoly capitalist long wave (between 1897 and 1940) lasted for 43 years. The big government capitalist long wave (between 1940 and 1983) also lasted for 43 years. The neoliberal capitalist long wave started in 1983 and has by now (2005) lasted for 22 years. It is now probably around the peak of the current long wave.

If the history could serve as a guide, it would mean that the current long wave is likely to end in the next 20 years. In the past, the declining phases of a long wave were periods of major economic, social, and political upheavals that led to the demise of the then prevailing capitalist institutional structure and the rise of a new institutional structure. Although there is not yet a well developed theoretical argument suggesting that such a transformation will necessarily take place in the next 20 years, in this paper we have argued that because of the structural contradictions of neoliberalism, in the coming years there are likely to be major world economic upheavals comparable to those that took place during the past long wave downturns.

It is impossible to predict what kind of institutions will emerge in the post-neoliberal era. However, it seems plausible that the new institutions will have to address the major economic, political, and environmental problems left unresolved by neoliberalism. This means that the new institutional structure will have to promote relatively rapid and stable expansion of effective demand in the world economy, direct the world economy away from the fossil fuels and develop clean, renewable sources of energy, control and reverse environmental degradation in many parts of the world, develop a new social compromise, and meet the basic needs and the desires for development of the billions of people living in the periphery.

Appendix: Data Sources and Technical Notes

Labor Income Share in GDP

Compensation of employees and GDP data for the U.S., Japan, Germany, the U.K., France, and Italy are from *OECD Economic Outlook* (<http://www.sourceoecd.org>). China's labor income is estimated as the sum of the urban population's wage incomes and the total peasants' net income. Data are from *The China Statistical Yearbook*, various years.

Data for the U.S. and the Chinese Economy

Data for the U.S. economy are from the U.S. Bureau of Economic Analysis (<http://www.bea.gov>), the Federal Reserve (<http://www.federalreserve.gov>), and *The Economic Report of the President*. Data for the Chinese economy are from *The China Statistical Yearbook*, various years.

The Long-Term Profit Rates, Interest Rates, and Economic Growth Rates of Advanced Capitalist Countries

Long-term profit rates and net profit rates of the U.K., the U.S., and Japan are calculated using data from *Historical Statistics of the United States*, *The United States National Income and Product Accounts*, *The British Historical Statistics*, *The United Kingdom National Accounts*, and *Historical Statistics of Japan*. The U.S. corporate AAA bond rates and the U.K. yields on consols are from above sources and deflated by GDP deflators. Long-term growth rates of 17 advanced capitalist countries are from Maddison (2003).

Projecting the U.S. Personal Sector Debt and Net Foreign Liabilities

The assumptions for the two projections are listed after Table 4 and 7. The values of the variables in the initial year (set as 2005) are set in a way so that the proportional relations between these variables are close to the actual relations in 2004.

The personal sector debt equals the cumulative sum of personal sector net borrowings:

$$(1) \quad \text{Personal sector debt (T)} = \sum_{t=2005}^T \text{Net borrowings (t)}$$

$$(2) \quad \text{Personal sector net borrowings (t)} = \text{Personal sector net acquisition of financial assets (t)} + \text{Personal sector financial balance (t)}$$

The personal sector net acquisition of financial assets of a year is set to be 8 percent of the year's projected the personal sector disposable income.

The net foreign liabilities equal the cumulative sum of the current account deficits:

$$(3) \quad \text{Net foreign liabilities (T)} = \sum_{t=2005}^T \text{Current Account Deficit (t)}$$

$$(4) \quad \text{Current account deficit (t)} = \text{Trade deficit (t)} + \text{Interest payments on foreign liabilities (t)} - \text{Interest incomes on foreign assets (t)}$$

Investment, Capital-Output Ratio, and the Rate of Return on Capital

Capital-output ratio is the inverse of capital productivity. Given certain economic growth rate, rate of depreciation, and investment to output ratio, there is a unique equilibrium capital-output ratio.

$$(5) \quad \text{Equilibrium capital-output ratio} = \text{investment ratio} / (\text{economic growth rate} + \text{depreciation rate})$$

If the actual capital-output ratio is below the equilibrium ratio, then given the prevailing growth rate, depreciation rate, and investment ratio, it tends to rise; conversely, if its above the equilibrium ratio, it tends to fall.

(6) $\text{Rate of return on capital} = \text{capital income share} / \text{capital-output ratio}$

Therefore, given certain capital income share, rising capital-output ratio implies falling rate of return on capital. China's current investment ratio of 50 percent implies an equilibrium capital-output ratio of 3.125 (assuming long-term trend economic growth rate of 8.5 percent and depreciation rate of 7.5 percent). That is, given the current investment ratio, capital productivity should keep falling to about 0.32.

Accounting for the U.S. Current Account Deficit

The following equations illustrate the determinants of the current account deficit:

(7) $\text{Current account deficit} = \text{Trade deficit} + \text{Net investment income} + \text{Miscellaneous items}$

(8) $\text{Trade deficit} = \text{U.S. Nominal GDP in U.S. dollars} * \text{U.S. imports propensity} - \text{the Rest of the World Nominal GDP in U.S. dollars} * \text{the Rest of the World imports propensity}$

$\text{The Rest of the World imports propensity} = \text{the U.S. exports to the rest of the world} / \text{the Rest of the World Nominal GDP in U.S. dollars}$

(9) $\text{Implied U.S. dollar real exchange rate} = \text{U.S. GDP deflator in U.S. dollars} / \text{the Rest of the World GDP deflator in U.S. dollars}$

(10) Equation (2) and (3) imply that:

$\text{Trade deficit} = \text{U.S. GDP deflator} * (\text{U.S. real GDP} * \text{U.S. imports propensity} - \text{the Rest of the World real GDP} / \text{U.S. dollar real exchange rate} * \text{the Rest of the World imports propensity})$

$$(11) \quad \text{U.S. trade deficit to GDP ratio} = \text{U.S. imports propensity} - \frac{\text{the Rest of the World imports propensity} * (\text{the Rest of the World real GDP} / \text{U.S. real GDP})}{\text{U.S. dollar real exchange rate}}$$

Equation (11) suggests that the U.S. trade deficit to GDP ratio (and therefore the U.S. current account deficit to GDP ratio) depends on the relative growth performance of the U.S. and the rest of the world, the U.S. dollar real exchange rate, and the imports propensity of the U.S. and the rest of the world.

The U.S. trade deficit to GDP ratio tends to rise if the U.S. real GDP grows more rapidly than the rest of the world real GDP, the U.S. dollar appreciates in real term, or if the U.S. imports propensity grows sufficiently rapidly relative to the rest of the world's imports propensity. In equation (11), obviously, if the U.S. and the rest of the world imports propensity grow at the same rate, the trade deficit to GDP ratio would rise proportionately.

To estimate the contribution of different factors to the U.S. trade deficit growth between 1990 and 2003, we simply calculate what the U.S. trade deficit would be in 2003 allowing one factor (for example, the growth difference between the U.S. and the rest of the world) to operate as it actually did while holding other factors constant.

Global Portfolio Diversification Limit

The rest of the world's total value of net assets equals the sum of the cumulative net investment in all previous years at current market values and the net claims on the U.S. assets (which equal the U.S. net foreign liabilities).

If capital gains are ignored, then the growth rate of the rest of the world's total value of net assets equals the ratio of the rest of the world's net savings over the total value

of net assets. Since the U.S. current account deficits, at current trends, account for an ever-rising share of the rest of the world's net savings, and the current share of the U.S. deficit in the rest of the world's savings is obviously higher than the current share of the U.S. net foreign liabilities in the rest of the world's total value of net assets (the U.S. current account deficit accounts for about 2.6 percent of the rest of the world's GDP and the U.S. net foreign liabilities account for about 11 percent of the rest of the world's GDP; and suppose the rest of the world has a capital-output ratio of 2.5 and a net savings rate of 12.5 percent), the U.S. net foreign liabilities (or the rest of the world's net claims on the U.S. assets) must account for an ever-rising share of the rest of the world's total value of net assets given the current trends of the U.S. deficits and foreign debt.

The rest of the world's gross claims on the U.S. assets have grown even more rapidly as the gross claims need to cover not only the increase in the U.S. net foreign liabilities but also the U.S. investment in the rest of the world (which has also tended to grow more rapidly than the U.S. and the world GDP). Because of these trends, the rest of the world is exposed to ever-rising risk of large capital losses associated with the U.S. dollar denominated assets.

Bibliography

- Albritton, Robert, Makoto Itoh, Richard Westra, and Alan Zuege (eds.). 2001. *Phases of Capitalist Development: Booms, Crises, and Globalizations*. New York: Palgrave.
- Armstrong, Philip, Andrew Glyn, and John Harrison. 1991. *Capitalism since 1945*. Cambridge, Massachusetts: Basil Blackwell.
- Atkins, Ralph. 2004. Flirting with Recession: Weak Demand in the Eurozone Baffles the Economists. *Financial Times*, December 8, 2004.
- Bernanke, Ben. 2005. The Global Savings Glut and the US Current Account Deficit. Remarks on April 14, 2005. Website: <http://www.federalreserve.gov>.
- Bowles, Samuel, David M. Gordon, and Thomas E. Weisskopf. 1990. *After the Waste Land: A Democratic Economics for the Year 2000*. Armonk, New York: M.E. Sharpe.
- Brittan, Samuel. 2005. The Myth of National Savings Drives. *Financial Times*, August 5, 2005.
- Bush, Janet. 2003. Outlook for Europe: the Neoliberal Stranglehold on Growth. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 108-115. New York: Palgrave Macmillan.
- Chossudovsky, Michel. 1998. *The Globalisation of Poverty*. London and New Jersey: Zed Books Ltd.
- Crotty, James. 2000. Trading State-Led Prosperity for Market-Led Stagnation: from the Golden Age to Global Neoliberalism. The Political Economy Research Institute of University of Massachusetts Amherst, Published Study 7. Website: <http://www.umass.edu/peri>.
- Crotty, James, Gerald Epstein, and Patricia Kelly. 1998. Multinational Corporations in the Neo-Liberal Regime. In Dean Baker, Gerald Epstein, and Robert Pollin (eds.), *Globalization and Progressive Economic Policy*, pp. 117-143. Cambridge: Cambridge University Press.

- D'arista, Jane. 2003. Financial Architecture in the 21st Century? In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 202-210. New York: Palgrave Macmillan.
- Dooley, Michael P., David Folkerts-Landau, and Peter M. Garber. 2003. An Essay on the Revised Bretton Woods System. National Bureau of Economic Research Working Paper 9971. Website: <http://www.nber.org/papers/w9971>.
- _____. 2004. Direct Investment, Rising Real Wages, and the Absorption of Excess Labor in the Periphery. National Bureau of Economic Research Working Paper 10626, September. Website: <http://www.nber.org/papers/w10626>.
- Dumenil, Gerard and Dominique Levy. 2005. The New Configuration of U.S. Imperialism in Perspective. Website: <http://www.cepremap.ens.fr/levy/2004f.pdf>.
- Eatwell, John and Lance Taylor. 2000. *Global Finance at Risk*. New York: The New Press.
- Eichengreen, Barry. 2004. Why the Dollar's Fall Is Not to Be Welcomed. *Financial Times*, December 20, 2004.
- Fan, Ping. 2003. 2002 Nian Nongmin / Nongcun Fazhan Baogao (A Development Report of the Peasants and the Rural Areas in 2002). In Ru Xin, et al. (Eds.), 2003 Nian Zhongguo Shehui Xingshi Fenxi yu Yuce (Analyzing and Predicting China's Social Situation in 2003), pp. 261-269. Beijing: Shehui Kexue Wenxian Chubanshe (Social Science Literature Press).
- _____. 2002. Biandong zhong de Zhongguo Nongcun yu Nongmin (The Changing Chinese Rural Areas and Peasants). In Ru Xin, et al. (Eds.), 2002 Nian Zhongguo Shehui Xingshi Fenxi yu Yuce (Analyzing and Predicting China's Social Situation in 2002), pp. 252-260. Beijing: Shehui Kexue Wenxian Chubanshe (Social Science Literature Press).
- Felix, David. 2001. Why International Capital Mobility Should Be Curbed, and How It Could Be Done. Paper Presented in the Political Economy Research Institute Conference at University of Massachusetts Amherst, November 2001.

- Ghosh, Jayati. 2003. Outlook for South Asia: Capital Flows, Deflation, and the Persistence of Poverty. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 97-103. New York: Palgrave Macmillan.
- Goldstein, Morris and Nicholas Lardy. 2005. China's Revaluation Shows Size Really Matters. *Financial Times*, July 22, 2005.
- Green, Duncan. 1995. *Silent Revolution: the Rise of Market Economics in Latin America*. London: Cassell.
- Greenhill, Romily. 2003. Globalization and Its Consequences. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 20-49. New York: Palgrave Macmillan.
- Greenspan, Alan, 2003. Speech at the 21st Annual Monetary Conference Co-sponsored by the Cato Institute, November 20, 2003. Website: <http://www.federalreserve.gov/boarddocs/speeches/2003/20031120>.
- _____. 2004. Evolving U.S. Payments Imbalance and Its Impact on Europe and the Rest of the World. *Cato Journal* 24 (Spring-Summer): 1-11.
- Jomo, Ks. 2003. Outlook for East Asia: US Dependency and Deflation. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 104-107. New York: Palgrave Macmillan.
- Kotz, David M. 1997. *Revolution from Above: the Demise of the Soviet System*. London and New York: Routledge.
- _____. 2003. Neoliberalism and the U.S. Economic Expansion of the 1990s. *Monthly Review* 54(11): 15-33.
- Li, Minqi and Adam Hanieh. 2005. Secular Trends, Long Waves, and the Cost of the State: Evidence from the Long-Term Movement of the Profit Rate in the US Economy 1869-2000. *Review: A Journal of the Fernand Braudel Center for the Study of Economies, Historical Systems, and Civilizations* (forthcoming).
- Marglin, Stephen and Juliet B. Schor (eds.). 1990. *Golden Age of Capitalism: Reinterpreting the Postwar Experience*. Oxford: Clarendon Press.

- Maddison, Angus. 2003. *The World Economy: Historical Statistics*. Paris: the Development Centre of the Organisation for Economic Co-operation and Development.
- Obstfeld, Maurice and Kenneth Rogoff. 2005. Global Current Account Imbalances and Exchange Rate Adjustments. May 16, 2005. Website: <http://post.economics.harvard.edu/faculty/rogoff/rogoff.html>.
- Pettifor, Ann. 2003. Making Sense of Our World: 1970-2003. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 5-19. New York: Palgrave Macmillan.
- Qian, Minze. 2003. *Zhongguo Laodongli Shichang yu Jiuye* (China's Labor Market and Employment). In Wang Changsheng et al. (eds.), *Zhongguo yu Shijie Jingji Fazhan Baogao 2004 Nian* (China and the World Economy Development Report 2004), pp. 305-310. Beijing: *Shehui Kexue Wenxian Chubanshe* (Social Science Literature Press).
- Randriamaro, Zo. 2003. Outlook for Africa: Debt, AIDs, and the Feminization of Poverty. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 116-126. New York: Palgrave Macmillan.
- Roach, Stephen. 2005. Global: China's Rebalancing Tactic. The Morgan Stanley Global Economic Forum, July 25, 2005. Website: <http://www.morganstanley.com/GEFdata/digests/latest-digest.html>.
- Rodrik, Dani. 2003. Why Financial Markets Misbehave? In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 188-191. New York: Palgrave Macmillan.
- Roubini, Nouriel and Brad Setser. 2005a. China Trip Report. Website: <http://rgemonitor.com>.
- _____. 2005b. Will the Bretton Woods 2 Regime Unravel Soon? The Risk of a Hard Landing in 2005-2006. Paper written for the Symposium on "the Revised Bretton Woods System: A New Paradigm for Asian Development?" organized by the Federal Reserve Bank of San Francisco and University of California Berkeley, San Francisco, February 4th, 2005.

- Serrano, Franklin. 2003. Outlook for South and Central America: Economic Stagnation and State Decline. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 84-89. New York: Palgrave Macmillan.
- Sutcliffe, Bob. 2003. A More or Less Unequal World? World Income Distribution in the 20th Century. The Political Economy Research Institute, University of Massachusetts Amherst, Working Paper 54. Website: <http://www.umass.edu/peri/pdfs/WP54.pdf>.
- United Nations. 2002. *Human Development Report*. New York: Oxford University Press. Published for the United Nations Development Programme.
- Wade, Robert Hunter. 2003. Poverty and Income Distribution: What Is the Evidence? In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 138-151. New York: Palgrave Macmillan.
- Wolf, Martin. 2005. The Paradox of Thrift: Excess Savings Are Storing up Trouble for the World Economy. *Financial Times*, June 13, 2005.
- World Bank. 2004. *World Development Indicators CD ROM*. Washington, D.C.: The World Bank.
- _____. 2005. *World Development Indicators CD ROM*. Washington, D.C.: The World Bank.
- Xie, Andy. 2004. Asia Should Sell Treasuries Now. The Morgan Stanley Global Economic Forum, November 23, 2004.
- Website: <http://www.morganstanley.com/GEFdata/digests/latest-digest.html>.
- _____. 2005a. China: Searching for a Soft Land. The Morgan Stanley Global Economic Forum, February 1, 2005.
- _____. 2005b. China: Dealing with Too Much Money. The Morgan Stanley Global Economic Forum, February 17, 2005.
- _____. 2005c. China: Overcapacity – Blaming Whom?. The Morgan Stanley Global Economic Forum, July 8, 2005.
- Yam, Denise. 2005. China: Still Boiling. The Morgan Stanley Global Economic Forum, July 20, 2005.

Website: <http://www.morganstanley.com/GEFdata/digests/latest-digest.html>.

Yang, Yiyong and Xin Xiaobai. 2002. *Zhongguo Dangqian de Shouru Fenpei Geju ji Fazhan Qushi* (The Current Structure of Income Distribution in China and the Future Trends). In Ru Xin, et al. (Eds.), *2002 Nian Zhongguo Shehui Xingshi Fenxi yu Yuce* (Analyzing and Predicting China's Social Situation in 2002). pp. 144-154. Beijing: *Shehui Kexue Wenxian Chubanshe* (Social Science Literature Press).

Yeldan, Erinc. 2003. Outlook for the Middle East: Unfulfilled Promises and Devastation. In Ann Pettifor (ed.), *Real World Economic Outlook*, pp. 75-83. New York: Palgrave Macmillan.

Zhu, Qingfang. 2004. *Jumin Shenghuo Zhiliang Bianhua he Xiaofei Shichang de Xin Dongxiang* (The Changing Quality of Life of Households and New Trends in the Consumer Market). In Ru Xin, et al. (Eds.), *2004 Nian Zhongguo Shehui Xingshi Fenxi yu Yuce* (Analyzing and Predicting China's Social Situation in 2004), pp. 81-91. Beijing: *Shehui Kexue Wenxian Chubanshe* (Social Science Literature Press).

Table 1
Average Annual Growth Rates of GDP
for Selected Countries and Country Groups, 1971-2003 (%)

	1971- 1980	1981- 1990	1991- 2000	2001- 2003
United States	3.3	3.2	3.2	1.9
European Monetary Union	3.2 ^a	2.4	2.1	1.0
In which: Germany	2.7 ^a	2.3	1.9	0.3
France	3.3	2.5	1.9	1.2
Italy	3.6	2.3	1.6	0.8
Japan	4.5	4.1	1.4	0.9
United Kingdom	1.9	2.7	2.4	2.0
China	6.2	9.3	10.1	8.4
High income countries	3.5	3.2	2.6	1.6
Low and middle income countries	5.6	2.8	3.2	3.8
In which: East Asia and Pacific	6.6	7.3	7.8	7.1
Europe and Central Asia	n.a.	n.a.	-1.7	4.1
Latin America and Caribbean	5.9	1.1	3.4	0.3
Middle East and North Africa	4.5 ^b	1.8	3.4	3.7
South Asia	3.1	5.6	5.2	5.5
Sub-Saharan Africa	3.6	1.7	2.2	3.5
World	3.7	3.1	2.7	2.0

^a 1972-1980. ^b 1976-1980.

Source: World Bank (2004; 2005).

Table 2**Alternative Measures of World Economic Growth, 1971-2003 (%)**

	1971-1980	1981-1990	1991-2000	2001-2003
Measured by Market Exchange Rates:				
World	3.7	3.1	2.7	2.0
World (non-US)	4.0	3.1	2.3	2.1
World (non-US/China)	4.0	2.9	2.1	1.7
US Share	30.3	34.8	42.7	34.8
China Share	1.4	3.8	9.1	15.1
US and China Share	31.7	38.6	51.8	49.9
Measured by Purchasing Power Parity				
World (PPP)	3.8	3.2	3.3	3.1
World (non-US)	4.0	3.2	3.4	3.4
World (non-US/China)	3.9	2.9	2.6	2.6
US Share	19.6	22.0	21.6	13.7
China Share	4.7	12.4	23.9	30.8
US and China Share	24.3	34.4	45.5	44.5

Source: World Bank (2004; 2005).

Table 3**The Changing Structure of the U.S economy, 1981-2004 (%)**

	1961- 1969	1970- 1979	1980- 1990	1991- 2000	2001- 2004
Share of GDP:					
Private Consumption	61.7	62.4	64.5	67.3	70.2
Private Investment	15.6	16.8	16.7	15.7	15.6
Government Spending	22.2	21.0	20.6	18.6	18.5
Net Exports	0.6	-0.2	-1.8	-1.6	-4.3
Contribution to GDP growth:					
Private Consumption	59.7	62.5	69.4	72.2	77.7
Private Investment	16.9	21.3	11.4	21.8	10.0
Government Spending	24.0	17.7	21.0	13.5	24.1
Net Exports	-0.6	-1.5	-1.7	-7.5	-11.8

Source: The U.S. Bureau of Economic Analysis, *National Income and Product Accounts*, Website: <http://www.bea.gov>.

Table 4
Alternative Projections of U.S. Personal and Government Sector Debt
(as % of disposable income and GDP respectively)

	Personal Sector		Government Sector	
	Debt		Debt	
	2015	2025	2015	2025
Status Quo	173.6	210.0	53.2	58.1
Government Deficit-Led Growth	144.8	131.1	74.6	116.4
Constant Trade Deficit	153.4	144.9	75.7	115.6
World Economic Acceleration	144.8	131.1	71.9	107.1
Exports-Led Growth	144.8	131.1	53.2	58.1

Assumptions:

- (1) In the initial year (2005), the U.S. GDP = 1; the rest of the world (ROW) GDP = 2.33; the U.S. imports propensity = 0.15; the ROW imports propensity = 0.04; personal sector disposable income = 74% of GDP; business sector disposable income = 14% of GDP; government sector disposable income = 12% of GDP; personal sector deficit = 3.45% of GDP; business sector surplus = 1% of GDP; government sector deficit = 3.5% of GDP; personal sector assets-income ratio = 4.23; personal sector debt-income ratio = 1.24; government sector (net) debt-GDP ratio = 0.45.
- (2) For all projections, the U.S. and ROW are assumed to have a constant annual inflation rate of 2%; the ROW is assumed to have a constant growth rate of 2.5% a year (the 1993-2003 trend rate, except for the scenario of world economic acceleration); the personal sector financial assets rise by 8% of disposable income each year (and therefore the personal sector debt rises by 8% of disposable

income plus the year's personal sector balance each year); for simplicity, the current account deficit is assumed to be the same as the trade deficit.

- (3) Status Quo: the personal sector deficits and debt expand to allow the U.S. GDP growing at 3.3% a year (the 1993-2003 trend rate). No change in business and government sector balances.
- (4) Government-Deficit Led Growth: the government deficits and debt expand to allow the U.S. GDP growing at 3.3% a year. The personal sector balance corrects by 0.5% of GDP a year until 2015 and stays constant thereafter.
- (5) Constant Trade Deficit: the personal sector balance corrects by 0.5% of GDP a year until 2015 and stays constant thereafter; the government sector deficit rises by 0.5% of GDP a year until 2015 and stays constant thereafter.
- (6) World Economic Acceleration: ROW grows at 3.3% a year. Other assumptions are the same as "constant trade deficit".
- (7) Exports-Led Growth: the exports expand to allow the U.S. GDP growing at 3.3% a year. The personal sector balance corrects by 0.5% of GDP a year until 2015 and stays constant thereafter.

Table 5**China's Changing Economic Structure, 1981-2003 (%)**

	1981- 1985	1986- 1990	1980- 1990	1996- 2000	2001- 2003
Share of GDP (expenditure approach): ^a					
Private Consumption	52.2	51.0	46.5	47.2	45.1
Public Consumption	14.0	12.5	12.8	12.2	12.8
Fixed Capital Formation	28.1	29.2	33.7	35.0	39.5
Exports ^b	7.9	12.7	19.0	20.1	25.7
Net Exports	-0.3	-0.4	1.0	3.0	2.3
Contribution to GDP growth: ^a					
Private Consumption	53.6	47.5	44.4	51.8	30.4
Public Consumption	12.4	11.2	11.0	16.3	9.5
Fixed Capital Formation	31.2	21.9	38.7	40.0	57.9
Exports ^b	12.7	22.8	23.6	26.5	48.7
Net Exports	-8.3	9.2	1.2	4.0	1.4

^a The shares of private consumption, public consumption, fixed capital formation, and net exports do not add up to 100 percent. The difference is accounted for by change in inventories. ^b Exports of goods only.

Source: *The China Statistical Yearbook 2004* and various years.

Table 6

Alternative Projections of China's Investment Landing

(Average annual growth rates of the economy and investment over the landing period)

	Equilibrium investment ratio = 35%	Equilibrium investment ratio = 40%
High Growth:		
Economic Growth	6.7%	7.5%
Investment Growth	2.9%	5.1%
Medium Growth:		
Economic Growth	5.7%	6.5%
Investment Growth	2.0%	4.2%
Low Growth:		
Economic Growth	4.7%	5.6%
Investment Growth	1.0%	3.2%

Assumptions: initial investment-GDP ratio = 50%; landing takes place over ten years; under the “high growth”, “medium growth”, and “low growth” scenarios, the non-investment economy grows at 9.5%, 8.5%, and 7.5% a year respectively over the landing period.

Table 7
Alternative Projections of U.S. Current Account Deficits and Net Foreign Liabilities (as % of U.S. GDP, assume no change in exchange rate)

	Current Account Deficits		Net Foreign Liabilities	
	2015	2025	2015	2025
Globalization I	11.9	15.4	80.4	151.0
Globalization II	9.3	12.1	71.8	123.6
Rapid US Growth	8.3	10.7	68.6	112.8
US and World Slow Growth	7.7	9.3	69.3	111.3
World Growth Acceleration	7.5	8.9	65.6	101.3
Interest Rate Equalization	9.5	12.1	77.2	127.6

Assumptions:

- (1) In the initial year (2005), the U.S. GDP = 1; the rest of the world (ROW) GDP = 2.33; the U.S. imports propensity = 0.15; the ROW imports propensity = 0.04; the U.S. gross foreign liabilities = 1.05.
- (2) For all projections, the U.S. and ROW are assumed to have a constant annual inflation rate of 2%; the U.S. gross foreign assets are assumed to stay constant as a ratio to the U.S. GDP with the ratio being 80%; rate of return on the U.S. foreign assets = 5%; rate of return on the U.S. foreign liabilities = 4% (except for “Interest Rate Equalization”).
- (3) Globalization I: the U.S. and ROW imports propensity are assumed to continue rising at their trend between 1990 and 2003 until 2015. The U.S. imports propensity rises at 2.5% a year to 2015 and stays constant thereafter; the ROW imports propensity rises at 1.25% a year to 2015 and stays constant thereafter; the U.S. GDP grows at 3.3% a year (the 1993-2003 trend rate); the ROW GDP grows at 2.5% a year (the 1993-2003 trend rate).

- (4) Globalization II: the U.S. and ROW imports propensity are assumed to grow at the same rate of 1.25% a year until 2015 and stays constant thereafter. The growth assumptions are the same as “Globalization I”.
- (5) Rapid US Growth: the U.S. and ROW imports propensity stays constant and the growth assumptions are the same as “Globalization I”.
- (6) US and World Slow Growth: the U.S. and ROW grows at the same rate of 2.5% a year, with constant imports propensity.
- (7) World Growth Acceleration: the U.S. and ROW grows at the same rate of 3.3% a year, with constant imports propensity.
- (8) Interest Rate Equalization: the rate of return on the U.S. foreign liabilities = 5%. Other assumptions are the same as “World Growth Acceleration”.