U.S., China, and the Unraveling of Global Imbalances

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Ocotber 2007

WORKINGPAPER SERIES

Number 146

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During the 1950s and 1960s, the capitalist world economy experienced unprecedented rapid growth, widely known as the "golden age." However, by the late 1960s new contradictions emerged. High levels of employment, welfare state institutions, and the depletion of the rural surplus labor force in the advanced capitalist countries changed the balance of power between the capitalist class and the working class to the latter's favor. Labor militancy grew throughout the advanced capitalist countries as well as in some semi-peripheral countries (such as Latin America and Eastern and Southern Europe). Moreover, the rapid expansion of the world economy tended to improve the terms of trade for the periphery and semi-periphery. The profit rate fell across the capitalist world economy and revolutionary upsurges threatened to overthrow capitalist governments in many parts of the world (Gordon, Weisskopf, and Bowles 1987; Armstrong, Glyn, and Harrison 1991).

In response, the capitalist classes organized a global counter-offensive. After a bloody coup that overthrew the democratically elected socialist government in 1973, the Chilean fascist government conducted the first monetarist experiment with devastating economic and social consequences. In China, after Mao Zedong's death, the pro-capitalist forces took over political power. With Thatcher coming to power in Britain in 1979 and Regan in the US in 1980, monetarism and other neoliberal ideas became the dominant economic ideology in the leading capitalist countries. As the debt crisis broke out throughout the periphery and semi-periphery, IMF and the world bank imposed "structural adjustments" that involved a whole set of neoliberal policies (such as monetary and fiscal austerity, privatization, trade and financial liberalization) on Latin American and African countries. Similar policies were imposed on former socialist states and Southeast Asian countries in the 1990s.

By the 1990s, it was clear that a new institutional structure had emerged and become dominant in the capitalist world economy. The dominant institutions and the ideologies that justify the existing institutions are generally referred to as

neoliberalism. Many have since then studied the structural contradictions of neoliberalism (Crotty 2000; Felix 2001; Pollin 2005; Kotz 2005; Li and Zhu 2005). Under neoliberalism, rising inequality and absolute declines of living standards in many parts of the world have depressed mass consumption. High real interest rates and intensified financial instability have undermined productive investment. Many governments were forced to pursue contractionary macroeconomic policies to please international investors. Thus, during the 1980s and 1990s, the global economy had grown at a sluggish pace and had been hit by increasingly more violent financial crises.

However, since 2003, there has been a marked improvement in the conditions of the global economy. Figure 1 compares the growth performance of the world economy in the golden age with that under neoliberalism. In the 1950s and the 1960s, the world economy grew at annual rates between 4 and 6 percent. In the early neolibera era, there was a significant deceleration. Between the late 1970s and 1990s, the world economic growth rates fell to between 2 and 4 percent. However, since 2003, measured by purchasing power parity, the world economic growth rates have risen above 5 percent, comparable to the average performance during the golden age. Since the late 1990s, there has been a growing discrepancy between two measures of world economic growth, one based on market exchange rates and the other based on purchasing power parity. But by the measure of market exchange rates, the world economy has also seen a dramatic acceleration.[1]

The capitalist economic system is based on the production for profit. Relatively high and stable profit rates are required to induce and sustain rapid accumulation. Figure 2 presents the corporate profit rates for the world's two largest economies – the US and China – and for the world's 500 largest transitional corporations. In the US, the profit

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[1] Unless otherwise stated, data for the world economy used in this paper are from World Bank (2007).

rate tended to fall from the mid-1960s to the early 1980s. However, since the 1980s the US profit rate has risen substantially. In the current cycle, it has reached levels unseen since the 1960s. After a period of low profit rates in the 1990s, China's industrial profit rate surged to around 15 percent in the early 2000s. For the world's largest transnational corporations, their profit rate tended to fall from the 1960s to the 1990s, but since 2003 has recovered strongly.[2]

For other advanced capitalist countries, however, the picture is somewhat mixed. Figure 3 presents the share of property income in GDP for Japan and European countries. In Germany and France, the profit share has been largely stable since the 1970s, suggesting that neoliberalism has so far had limited success in generating a larger income share for the capitalist class. In Japan, the property income share has suffered a long-term, secular decline and has yet to recover from the collapse of the 1990s. In UK, the property income share did rise significantly during the 1980s but seems to have peaked by 1990. In Italy, the property income share surged from about 25 percent in the 1960s to near 45 percent in 1984. But it has tended to fall since then.[3]

Overall, since 2003, the global economy seems to have entered into a new phase. There has been strong improvement in corporate profitability in the world's leading economies and corporations. World economic growth has accelerated and the rate of growth has apparently broken the range of slow growth observed in the 1980s and the 1990s. This development raises a set of questions. What have been the underlying conditions behind the current acceleration of the world economy? How long can these conditions last? In the coming years, with changing underlying conditions, will

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[2] See Appendix for the definitions of the profit rate and the sources of data.

[3] Data for Figure 3 are from OECD (2007). The property share is the share of property and other incomes in GDP.

the global economy enter into a new period of instability and crisis? Alternatively, what are the conditions that will be required for a successful restructuring of the capitalist world economy?

The rest of the paper will argue that the US current account deficits and China's dramatic economic rise have been the two pillars underpinning the current global economic expansion. However, the coming years are likely to see the unraveling of the external and internal imbalances of the US economy. Moreover, the Chinese economy has been characterized by excessive dependence on investment and exports.

With the unraveling of the global imbalances, the US will cease to be the driving engine of the global demand expansion. Whether global economic expansion can be sustained will to a large extent depend on whether the Chinese economy can be successfully restructured into one that is led by domestic demand and especially mass consumption.

The current global economic expansion takes place against the background of intensified global environmental crisis. The economic rise of China (and to a less extent, India) has greatly accelerated the depletion of resources and global environmental degradation. The global climate change that results from the emission of greenhouse gases requires urgent global actions. Further, there is now convincing evidence that the global oil production is going to peak soon. Therefore, a successful restructuring of the global economy requires not only a demand-side "fix," but also a supply-side "fix" that effectively addresses the question of long-term ecological sustainability.

The US Economy and the Global Imbalances

Figure 4 compares the contribution to real world economic growth (measured by purchasing power parity) from the US, the Euro-zone, China, and India. A country's contribution is measured by the ratio of the change of the country's real GDP over the change of the world's real GDP over a three-year period. During the 1990s, the US contributed to about 25 percent of the real world economic growth. However, since 2000, the US contribution has fallen to about 15 percent. The Euro-zone contribution has fallen to between 5 and 10 percent in recent years. Since the 1990s, China has contributed to about one-third of the real world economic growth and India's contribution has risen to about 10 percent.

Figure 5 presents the contribution to nominal world economic growth (measured by current US dollars) from the US, the Euro-zone, China, and India. A country's contribution is measured by the ratio of the change of the country's nominal GDP over the change of the world's nominal GDP over a ten-year period (a longer period is used to smooth out the much wider fluctuations of contributions to world nominal GDP). A different picture emerges. During the late 1990s, as much of the world suffered from deflation and financial crises (often leading to large depreciation of many currencies against the US dollar), the US contribution to the growth of nominal world GDP surged, peaking at 49 percent in the period of 1992-2002. Thus, in the late 1990s, the US was clearly the main driving force for the expansion of the global aggregate demand. However, since then the conditions have changed. As the US dollar depreciated against the Euro, the US contribution has fallen to about 30 percent. The Euro-zone contribution to has recovered to about 20 percent and China's contribution has risen to about 10 percent.

Throughout the 1980s and 1990s, the neoliberal global economy suffered from stagnation and financial instabilities. These tendencies, if not effectively counteracted, could have led to a vicious circle that would send the neoliberal global economy into a deflationary downward spiral. In this context, the US has been running large and

rising current account deficits, a phenomenon that has become known as the "global financial imbalances."

The US current account deficits have played a crucial role in stabilizing the neoliberal global economy and have contributed to its recent acceleration. The US current account deficits directly create demand for the rest of the world. The US deficits help to absorb the global excess production capacity and allow many economies to pursue export-led growth. Given the size of the US economy and its import propensity, this represents a significant contribution to the global aggregate demand.

Table 1 presents the shares of the world's large economies and regions in the world's total current account surpluses or deficits. Between 2001 and 2006, the US and UK were the only two large economies that run current account deficits and the US have been absorbing more than 90 percent of the world's total surplus savings. China has replaced Japan to become the world's largest source of surplus savings. China and the oil exporters (Africa and Middle East) each contributed about one-quarter to the world's total current account surpluses. Another interesting fact is that, the "world" itself has turned from a very large net lender into a small net borrower. This in a way suggests that the US current account deficits now have become more "real" than they used to be.

Perhaps more importantly, as the US runs large current account deficits, the US accumulates an increasingly larger stock of foreign liabilities. The US liabilities create assets for the rest of the world. As a result of the cumulative US deficits, the rest of the world has by now accumulated an enormous amount of foreign exchange reserves.

Figure 6 compares the US net foreign debt with the total foreign exchange reserves of the world and of the low- and middle-income countries. as ratios of the world's

nominal GDP. The growth of the world's foreign exchange reserves has largely paralleled the growth of the US net foreign debt. From 1996 to 2006, the world's foreign exchange reserves rose from 1.6 trillion dollars to 5 trillion dollars and the share in the world GDP nearly doubled from 5.4 percent to 10.4 percent. The growth of the total foreign exchange reserves of the low- and middle-income countries tracked the growth of the US net foreign debt more closely. From 1996 to 2006, the low- and middle-income countries saw their foreign exchange reserves surge from 527 billion dollars to 2.7 trillion dollars and their share in the world GDP quadrupled from 1.7 percent to 5.6 percent. Since 2002, the US net foreign debt has tended to fall as a share of world GDP, reflecting the dollar's depreciation, which increases the value of the US overseas assets offsetting some of the growth of the US foreign liabilities.

With huge foreign exchange reserves, the rest of the world (especially the so-called "emerging markets" in Asia, Latin America, Middle East, and Eastern Europe) has become much less concerned with the threat of capital flight and financial crisis, and has to some extent regained the ability to pursue expansionary macroeconomic policies. In many countries, rapid growth in foreign exchange reserves has been translated into rapid expansion of money supply, which has in turn fueled stock and property markets boom, stimulating the expansion of investment and consumption.

The US currently runs a current account deficit around 6 percent of GDP. This level of current account deficits cannot be sustained and is likely to be corrected in the coming few years. If the US runs a deficit of 6 percent of GDP indefinitely, and assume that the long-term nominal growth rate of the US economy is 5 percent and there is no change in the value of US dollar, then the US net foreign debt to GDP ratio would keep rising until it reaches the implied maximum of 120 percent. This is clearly inconceivable. To stabilize the US net foreign debt to GDP ratio at 20 percent

with a stable dollar, then the US current account deficit must be reduced to no more than 1 percent of GDP.[4]

The US current account deficit has its domestic counterpart. It is an accounting identity that the current account balance must equal the sum of a country's private sector financial balance and public sector financial balance. The private sector financial balance in turn equals the sum of the household sector financial balance and the business sector financial balance. Thus, if the US runs a large current account deficit, then either the US government or the US private sector must run a large financial deficit. Indeed, that is what has happened.

In the second half of the 1990s, fueled by the stock market boom the US economic growth accelerated, led by private consumption. After the collapse of the stock market in 2001, the US Federal Reserve drastically cut the short-term interest rate and kept the real interest rate at below or near zero for years. The US government balance moved from a surplus of about 2 percent of GDP to a deficit of about 4 percent of GDP. The massive increase in money supply helped to stabilize the stock market and soon led to a much bigger housing market bubble, which in turn led to a new round of debt-financed consumption boom.

The US private sector historically had always had positive financial balances. But since the late 1990s, it has been mostly in the negative territory. From 2003 to 2006, as the US government deficit shrank from 6 percent of GDP to about 2 percent of GDP, the private sector financial balance moved from a near balance to a deficit of 4 percent of GDP. Within the private sector, it is the household sector that has been driving the deficit expansion. The US household debt has soared from about 60

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[4] If a deficit of a certain percentage of GDP continues indefinitely, then the ultimate net debt to GDP ratio is determined by the deficit to GDP ratio divided by the expected future growth rate of GDP.

percent of GDP in the early 1990s to about 100 percent of GDP today, and under the current trend would rise to 120 percent of GDP by 2010 (Godley, Papadimitriou, and Zezza 2007).

The US household debt cannot keep rising indefinitely relative to GDP or the household sector disposable income. At some point, the US households will have to repair their balance sheets and increase savings. If the US private sector financial balance returns to their historical norms, then the US current account deficit will correct correspondingly.

For the US current account deficits to be financed, the rest of the world must be willing to supply the same amount of excess savings. In the late 1990s and early 2000s, as much of the world suffered from insufficient demand and desperately sought relief through export-led growth, there was little difficulty for the US to attract surplus capital from the rest of the world. However, since then the conditions have changed.

Sustained large US current account deficits have contributed to the acceleration of world aggregate demand. After years of rapid world economic growth, global excess production capacity is being depleted. There has been growing upward pressure on energy and commodities prices. Figure 7 shows the relationship between world economic growth (annual growth rates measured by purchasing power parity) and the real oil price (constant 2006 US dollars per barrel of oil, deflated by the US GDP deflator).[5]

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[5] Oil prices for the period 1950-2003 are from Campbell (2005: 251-252) and for 2004-2006 are from OECD (2007).

During the 1950s and 1960s, low oil prices around 10 dollars (constant 2006 US dollars) a barrel had been a key supporting factor underlying the rapid world economic growth. The surge of real oil prices in the 1970s and early 1980s was a major factor that precipitated the economic downturn. Since 1998, the real oil price had more than quadrupled from about 15 dollars to 65 dollars in 2006. The real oil price is now probably approaching its previous peak of 77 dollars reached in 1980. The recent surge of oil prices reflects the growing pressure of accelerated world economic growth imposed on the world's limited energy supply capacity.

Rising oil price and other commodities prices suggest that the world is having growing difficulty to generate enough production capacity to meet simultaneously the rapid expansion of demand in both the US and the rest of the world. If the US continues to run large current account deficits, and the rest of the world's domestic demand continues to grow rapidly, an increasingly smaller excess saving from the rest of the world will no longer be sufficient to finance the US current account deficit. This will translate into either unrelenting depreciation of the US dollar if the rest of the world allows their currencies to appreciate against the dollar, or world-wide acceleration of inflation if the rest of the world attempts to maintain their currency "pegs" with the dollar.[6]

The current account deficit represents excess domestic demand in relation to output Thus, for the US current account deficit to be corrected, the US domestic demand must fall relative to the US output. Further, this excess demand has been met through imports of tradable goods. Thus, the US productive resources must shift from the "non-tradable" sectors (such as finance, wholesale and retail, other services, utilities,

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[6] If the total surplus savings from the rest of the world are smaller than the US current account deficits, then the US dollar will have to depreciate in real term. This could mean either nominal depreciation of the dollar or that inflation is higher in the rest of the world than in the US.

and construction) to "tradable" sectors (such as manufacturing, mining, and agriculture). This would in turn require a large relative price adjustment in the form of dollar depreciation. Therefore, the correction of the US current account deficit could take place through either a US recession (which would reduce domestic demand), or a large dollar depreciation, or a combination of both.

With the collapse of the housing bubble, it is likely that the debt-financed US consumption boom can no longer be sustained. Given the high level of the US household debt, if the US households reduce spending relative to their incomes for a sustained period of time, then the US could fall into a deep recession or a period of prolonged stagnation.

The US Federal Reserve could attempt to re-start the consumption boom by lowering the interest rate. But given the US households' debt burden, it is not clear whether the monetary policy alone can be sufficient. A lower US interest rate, however, could lead to dollar depreciation by encouraging capital outflows. A controlled and orderly depreciation of the US dollar helps to stimulate exports and contain imports. In principle, this could help the US to reduce its current account deficits without suffering from serious adverse consequences.

However, as China, the rest of Asia, and the oil exporters have either pegged their currencies against the US dollar or only allowed their currencies to appreciate very slowly, the US dollar depreciation amounts to a general depreciation of the Asian and oil exporter currencies against other major currencies, especially the euro. With the rapid expansion of production capacity in China and the rest of Asia (and therefore their ability to capture a larger share of the world market), and given the world's dependence on oil, Asia and the oil exporters could capture much of the benefit of dollar depreciation.

Table 2 reports the US current account balance in 2006 by major areas. China and the rest of Asia together accounted for 53 percent of the US current account deficit. Oil and commodities exporters, such as Latin America, Africa, Middle East, and Canada, together accounted for 32 percent. The Euro-zone, UK, and other Europe together accounted for only 16 percent. Thus, the potential scope for the US to export out of its current account deficit is likely to be limited. Moreover, to the extent the euro bears a disproportionately large burden of the dollar depreciation, the Euro-zone would be under strong deflationary pressure. A stagnant Euro-zone economy would in turn reduce imports from the US.

Alternatively, the US government could attempt to revive the economy by running large fiscal deficits. The size of the fiscal deficit that would be required depends on the financial balance of the private sector. Given a current account deficit of 6 percent of GDP, if the private sector financial balance returns to zero, then the government sector must run a deficit of 6 percent of GDP. If the private sector returns to positive balances, then the government sector must run even larger deficits.

If the Federal Reserve or a combination of monetary and fiscal policy does succeed in brining the US economy back to trend growth without a major correction of the US current account deficit, then the US excess demand is likely to impose growing inflationary pressure on the rest of the world. The world's central banks are now overloaded with excess foreign exchange reserves, which have already led to assets bubbles in many parts of the world. If the Asian economies and oil exporters choose to continue accommodating the US current account deficits through hard or "soft" peg of their currencies to the US dollar, the rapid and sustained increase of their foreign exchange reserves will eventually lead to a general acceleration of inflation. At that point, these economies will be forced to allow their currencies to float (or re-peg their currencies at a much higher value) (Xie 2007; Setser 2007a). If a large depreciation

of the US dollar takes place against the background of accelerating global inflation, then there will be a high probability of an uncontrolled dollar crash.

One way or the other, in the coming years we are likely to see the unraveling of the US current account deficits (and therefore the unraveling of global financial imbalances). The unraveling of the deficits carries significant risks for the US economy, such as deep recession or dollar crash. The US household consumption will have to fall substantially in relation to the households' disposable income. This will make life difficult for many working class families and contribute to rising social tensions. With a prolonged period of slowdown, or with a large depreciation of the dollar (even without a crash), or with a combination of both, the US will suffer a significant decline in its relative global position and will cease to be the leading engine for the global economy.

The US current account deficits have played a stabilizing role in the neoliberal global economy. As the US deficit disappears, it no longer creates new financial assets for the rest of the world. Moreover, if the rest of the world's currencies experience large appreciations against the dollar, their central banks will suffer major capital losses as the relative value of their foreign exchange reserves declines. That could undermine a major cushion against capital flight and financial crisis the rest of the world has enjoyed in recent years. This raises the important question, which among the world's large economies could replace the US to lead the expansion of the global economy and act as the key stabilizer.

In the Euro-zone, the organized labor remains relatively strong. If the European Central Bank chooses to pursue an expansionary policy, it could soon lead to wage inflation, undermining capitalist profitability. This is probably the real reason behind the European Central Bank's stubborn commitment to an arbitrarily selected inflation target. Alternatively, if the Euro-zone capitalist class dares to undertake a major

offensive against the working class to force the so-called "labor market reform," it could undermine consumption spending and risk a serious political backlash.

Japan, India, Russia, and Brazil are not big enough to influence the global economy in a decisive manner. Japan in particular lacks the growth momentum. This leaves China as the only plausible candidate.

The Rise of China and the Triumph of Neoliberalism

Neoliberalism can be seen as a strategic attempt of the global capitalist class to reverse the historical gains of the world's working classes, in order to lower the cost of wages and social spending and restore the profit rate. The neoliberal policies and institutions collectively constitute a strategy to undermine the bargaining power and organizational capacity of the working class. But for this strategy to succeed, it requires not only the will and determination of the capitalist class, but also certain objective conditions.

The neoliberal policies, by depriving working people of their economic and social rights, lowering their living standards, leading to surging inequality, and destroying the national economies in many countries, seriously undermine the political legitimacy of the global capitalist system. The neoliberal policies also tend to depress mass consumption and encourage financial speculation, leading to economic stagnation and violent financial crises. For the capitalist class, neoliberalism represents a very costly strategy in political and economic terms.

For neoliberalism to be sustained and successful, a new global environment needs to be created, in which the global balance of power can be turned to the favor of the capitalist class for a prolonged period of time. Moreover, certain conditions need to be created to address some of the inherent contradictions of the neoliberal global

economy. It is in this respect that China's transition to capitalism and economic rise has played an important and indispensable role.

The Maoist revolution and radicalization of the Chinese socialism was a major part of the 1960s global revolutionary upsurge. The 1976 counter-revolutionary coup, in which the pro-capitalist forces took over political power in China, thus represented a major defeat on the part of the international revolutionary forces. With the defeat of the Chinese revolution and other revolutionary challenges (France in 1968, Chile in 1973, and Portugal in 1975), the global political initiative passed into the hands of the capitalist class, paving the way for the rise of neoliberalism.

In the 1980s, despite politically being disarmed, the Chinese urban working class remained powerful at the workplace. The newly established bureaucratic capitalist regime had to make concessions to the workers and peasants. The 1980s saw widespread improvement in living standards. After 1992, however, the Chinese ruling elite was determined to undertake mass privatization. Tens of millions of state sector workers were laid off. The state sector workers that remain employed are deprived of their traditional socialist rights – the entitlement to "iron rice bowl" (job security, medical insurance, access to housing, and guaranteed pensions). In the meantime, privatization in the rural areas has destroyed the rural public health care and education system, which had been very effective in the Maoist era to meet the rural population's basic needs. Hundreds of millions of peasants have become migrant workers working under sweatshop conditions.

The defeat of the urban working class and the creation of a massive surplus labor force laid down the foundation of China's capitalist boom. By the early 2000s, China

has become the world's "workshop" or the center of the world manufacturing exports.[7]

China's economic rise has important global implications. First, as is presented in Figure 4, China directly contributes to global economic acceleration and has become a major engine of the global capitalist economy.

Secondly, China's incorporation into the capitalist global economy massively increased the size of the global reserve army of cheap labor force. In some industries, this allows the capitalists in the advanced capitalist countries to directly lower their wage and other costs by relocating capital to China. More important is the "threat effect." That is, the capitalists in the advanced capitalist countries could force the workers to accept lower wages and worse working conditions by threatening to move their factories or offices to cheap labor areas such as China, without actual movement of physical capital. China's incorporation makes the threat effect much more effective and credible.

Thirdly, China's low-cost manufacturing exports directly lower the prices of many industrial goods. To the extent unequal exchange takes place between China and the advanced capitalist countries, part of the surplus value produced by the Chinese workers is transferred to the advanced capitalist countries and helps to raise the profit rate for the capitalists there. Moreover, to the extent imports from China help to

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[7] In an unpublished manuscript – *Capitalist Development and Class Struggle in China* (1994), this author made the argument that the capitalist relations of production had become dominant and established in China. Some of the arguments were later summarized by Li (1996). Hart-Landsberg and Burkett (2004) demonstrate that China's theory and practice of "market socialism" have inevitably paved way for the rise of capitalism. Wen (2005) discusses the social and environmental consequences of China's capitalist development, in contrast with the revolutionary achievement of Maoist China.

lower the general prices in the advanced capitalist countries, the central banks have greater space to pursue expansionary monetary policies.

Fourthly, in recent years China has accumulated huge foreign exchange reserves. By investing most of the foreign exchange reserves (by some estimate, about 70 percent) in the US dollar assets, China has played a central role in financing the US current account deficits (Setser 2007c). The widening US current account deficits have in turn played an essential role in stabilizing the neoliberal global economy.

China's Macroeconomic Imbalances

Figure 8 presents China's macroeconomic structure from 1980 to 2006. From 2000 to 2006, the investment to GDP ratio rose sharply from 35 percent to 41 percent, the exports to GDP ratio surged from 23 percent to 37 percent. Net exports as a share of GDP rose from 2.4 percent to 3.9 percent. The consumption (including both household and public consumption) to GDP ratio, by contrast, fell from 62 percent in 2000 to 55 percent in 2005.[8]

Thus, since 2000, China's economic expansion has been led by surges in investment and exports. For the year of 2007, China's investment could rise to 45 percent of GDP and trade surplus may expand to 6 percent of GDP, leaving only 49 percent of GDP for the combined consumption of the household and public sector.[9]

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[8] Data for the period 1980-2005 are from National Bureau of Statistics of China (2006 and earlier years) and for 2006 are from World Bank (2007).

[9] *The Economist* ("How Fit Is the Panda?", September 24th – October 5th, 2007, pp. 75-77) reports that China's investment to GDP ratio is about 45 percent. It expects net exports to contribute to a quarter of China's economic growth in 2007, or 3 percentage points. This suggests that China's trade surplus in 2007 is likely to be 6-7 percent of GDP.

China's high-level of investment is partly fueled by the increase in money supply associated with China's surging foreign exchange reserves, and partly fueled by the high corporate profits associated with the export boom. High investment results in rapid additions to production capacity, and the excess output then has to be absorbed by further expansion of exports. Thus, China's investment boom is also very much exports related (Wang 2007).

China's economic growth has been accompanied by sharp increases in economic and social inequality. The workers' and peasants' income growth lags far behind overall economic growth, and nearly 100 million people have to struggle with an income less than 2 Yuan a day (roughly corresponding to 1 purchasing power parity dollar a day). In recent years, health care, education, and housing costs have surged, known to the Chinese working people as the "new three mountains" (the old "three mountains" refer to the pre-revolutionary forms of opperssion such as imperialism, feudalism, and bureaucratic capitalism), imposing a heavy burden on ordinary working class families' living budget. According to a Chinese government survey, about half of the urban residents and nearly 90 percent of the rural residents have no access to any health insurance. In some poor provinces, among those who died of diseases, some 60 to 80 percent could have survived if they had been able to afford the medical treatments (Zhu 2005: 85-96; Quinlan 2007).

Figure 9 compares China's household consumption with the total labor income for the period 1980-2005. Between 1990 and 2005, China's total labor income fell from 50 percent of GDP to 37 percent of GDP, a dramatic decline of 13 percentage points. During the same period, the household consumption as a share of GDP had fallen by

about the same amount.[10] So long as the Chinese working people continue to suffer from rising inequality, growing costs of living, deprivation of basic needs and security, mass consumption is likely to be depressed.

The unraveling of the global financial imbalances poses a serious challenge to China's current export-led growth model. The US accounts for about 20 percent of China's exports market. However, China heavily depends on trade with the US to generate trade surplus. In 2006, China's total trade surplus was 103 billion dollars but China's bilateral trade surplus with the US was 229 billion dollars. China has acted somewhat like the world's general processing plant that imports capital goods and raw materials from all over the world in order to make final products sold in the US market. Without the large US current account deficits, it is unlikely that China can continue to run large trade surpluses. If the gap were to be filled by investment, it would further exacerbate the problem of excess capacity and drive up the cost of energy and raw materials.

The current level of investment has already led to falling capital productivity and falling rate of return on capital. Figure 10 presents China's economy-wide output-capital ratio, profit share, and profit rate for the period 1992-2005. The output is defined as net domestic product, capital stock is defined as the business sector net

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[10] According to the data from World Bank (2007), China's household consumption as a share of GDP rose from 37 percent in 2005 to 44 percent in 2006. During the same year, public consumption as a share of GDP fell from 14 percent to 11 percent. It is not clear what could have explained either the dramatic surge of household consumption by 7 percent of GDP in a year or the mysterious decline of public consumption, and if some public consumption has been re-classified as household consumption.

stock of fixed capital, and the profit is defined as sum of all property incomes.[11] See Appendix for the estimates of these variables.

Despite falling wage share in GDP, the profit share has been relatively stable, reflecting rising taxes and rising depreciation of fixed capital. But the level of profit share is very high, at near 40 percent, sufficient to finance very high levels of capital accumulation. The output-capital ratio has fallen steadily since the mid-1990s and has driven down the profit rate, which fell form 26 percent in 1995 to 20 percent in 2005.

China's capital productivity and rate of return on capital cannot keep falling forever without undermining accumulation. Falling rate of return leads to pervasive excess capacity and rising non-performing loans in the banking sector. There is also the danger that investment could fall precipitously if the rate of return falls below certain threshold and undermines the general business confidence. In the future, as the workers and peasants demand higher incomes and more social spending, the profit share is also likely to fall, adding more pressure on the rate of return.

Most importantly, excessively high investment is unsustainable as it will inevitably drive up energy and resources costs. China is already the world's second largest energy consumer, accounting for about 15 percent of the world's total energy consumption. At the current rate, China could surpass the US to become the world's largest energy consumer in a few years. In the long run, China's energy consumption cannot keep growing more rapidly than the total world energy supply.

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[11] See Appendix for the estimate of China's labor income, net domestic product, business sector capital stock, and the profit.

Since 1971, the world energy supply has grown at an average annual rate of 2.2 percent. Between 1975 and 2004, China's energy efficiency (measured by the ratio of purchasing power parity GDP to energy use) grew at an average annual rate of 4.8 percent. But the world energy efficiency had grown at only 1.3 percent a year. In 2004, China's energy efficiency already reached 93 percent of the world average.[12] In the long run, it is unlikely that China's energy efficiency can improve much faster than the world average.

Even if one assumes that China's energy efficiency could keep improving at the very high rate of 4.8 percent a year and assume that China's energy use must keep in line with the growth of the world energy supply, the long-term sustainable growth rate of the Chinese economy is at best 7 percent a year.

Suppose China's capital productivity or the ratio of net domestic product to business sector capital stock should stabilize at 0.5. The business sector capital stock is about three-quarters of the total economy capital stock and the depreciation rate is estimated to be 7.7 percent. This implies a total economy capital-GDP ratio of 2.2. The relationship between an equilibrium capital-GDP ratio and the investment to GDP ratio is as follows:

Equilibrium capital-GDP ratio = investment to GDP ratio / (sustainable growth rate of GDP + depreciation rate of fixed capital)[13]

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[12] Data for energy use are from World Bank (2007).

[13] The intuitive explanation for this formula is that at equilibrium (with a stable capital-GDP ratio), investment must be just enough to cover both the depreciation of fixed capital and the net investment required for the capital stock to grow at the same rate as GDP.

Thus, for the capital-GDP ratio to stabilize at 2.2, the investment to GDP ratio can be calculated to be 2.2 * (7 percent + 7.7 percent) = 32.3 percent. As China's gross domestic saving now is 45-50 percent of GDP. The above calculation suggests that to have a stable capital productivity and rate of return on capital, China's saving ratio needs to decrease and consumption ratio needs to increase by 13-18 percent.

For consumption share in GDP to increase by the required amount, there must be a massive redistribution of income and wealth. Given the correlation between household consumption and the income for the working population, national income needs to shift away from the capitalist profit to the wages or public spending by approximately 15 percent of GDP. Will the Chinese capitalist class be wise and enlightened enough to accept a redistribution of such a magnitude?

If the Chinese ruling elite is willing to adopt a relatively enlightened approach, carry out the necessary social reform, and transform the Chinese economy so that growth is led by domestic consumption rather than investment and exports, can China then replace the US to become the new leader of the capitalist global economy and lead the world into a new golden age?

China's transition to capitalism has played an indispensable role in the global triumph of neoliberalism. China's huge reserve army of cheap labor has been a major factor in undermining the bargaining power of the global working class. However, capitalist development has been transforming China's own social structure and a large proletarianized working class is emerging in China.

China's remaining surplus labor pool now is being rapidly depleted. A recent study of the Chinese Academy of Social Sciences suggests that China could deplete its surplus labor pool as soon as 2010 (Wang and Yam 2007). A demographic study predicts that China's working age population as a share of the total population will

start to decline in 2010 and the absolute size of the working age population will start to decline in 2015 (Zhang 2005).

Historical experience from other countries suggests that as capitalist development depletes the rural surplus labor force, the relations of forces between the capitalists and the workers are likely to turn to the workers' favor. Already there has been some evidence that wage growth in China has accelerated, even though it still lags productivity growth (Wang and Yam 2007).

Over time, as labor supply is further tightened and the second-generation migrant workers become more familiar with the urban environment and more conscious of their working class identity, the workers are likely to become more self-confident and militant. Sooner or later, the Chinese workers will organize more frequently and effectively for economic and political struggle.

If the history could serve as a guide, then in perhaps one or two decades, the bargaining power and organizational capacity of the Chinese working class could rise to the point that they could impose serious pressure on the capitalist profit rate and accumulation. The political defeat of the Chinese working class paves the way for the rise of neoliberalism. The rise of the new Chinese working class could turn the global balance of power again to the favor of the global working class.

Peak Oil and Global Economic Crisis?

The growth of the capitalist world economy depends not only on the expansion of global markets and the supply of cheap labor force, but also on the adequate supply of cheap and abundant resources. In this respect, China's dramatic economic rise has greatly accelerated the depletion of fossil fuels and other non-renewable resources and could precipitate a global energy and environmental crisis.

Since 2000, China's energy consumption has grown at 9.4 percent a year. At the current rate, China will account for about 30 percent of the world's energy consumption in 10 years, and more than half of the world's energy consumption in 20 years. This is clearly impossible.

Between 2000 and 2004, China's carbon dioxide emissions grew at an average annual rate of 14 percent. In 2004, China emitted 4.7 billion tons of carbon dioxide, or 18 percent of the world's total emissions and China is expected to overtake the US in 2007 or 2008 to become the world's largest carbon dioxide emitter.[14] If China's emissions were to grow 10 percent a year, then by 2020 China alone would emit about twice as much as all of the advanced capitalist countries emit today.

Fossil fuels (oil, natural gas, and coal) provide 80 percent of the world's energy supply and oil accounts for one-third. Oil is essential for modern transportation. It provides an indispensable fuel for heavy equipment used in agriculture, mining, and construction and is an essential input for the production of fertilizers, plastics, and other chemicals (Heinberg 2006: 4-7).

Oil is a non-renewable resource and eventually will be depleted. There is a growing consensus that the world's oil production is likely to peak soon and start to decline irreversibly. Heinberg (2006: 23) summarizes the studies on peak oil dates, which range from now to 2030. Most independent studies predict a peak oil date before 2015, and those who predict a date after 2015 are institutions related to the oil industry or the US government.

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[14] "Carbon Emissions to Rise 59 Per Cent," *Financial Times*, May 22, 2007, p. 2

Campbell (2005: 209-216) expects the world natural gas production to peak by 2025, staying on a high plateau until 2045, and then decline precipitously. Laherrere (2004) predicts that the world natural gas production will peak around 2030. The conventional wisdom is that the world's coal reserves are relatively abundant and could last about 150 years at the current production rate. However, a recent study by the Energy Watch Group (2007) in Germany finds that the world's coal production is likely to peak around 2025. In any event, the consumption of fossil fuels needs to be dramatically reduced to alleviate global warming.

Nuclear energy and many renewable energy sources, in addition to many other limitations, can only be used to generate electricity. But for many uses fossil fuels cannot be substituted by electricity. Biomass is the only renewable energy source that can be used as substitutes for fossil fuels in the making of liquid or gaseous fuels, and various chemical products. But the potential of biomass is limited by the available quantity of productive land. Trainer (2004: Chapter 5 and 2006) estimates that if 600 million hectares or about 40 percent of the world's total cropland is used to grow biomass, it can produce just enough liquid fuel to replace about 20 percent of the world's current oil consumption. In addition, the large-scale production of biomass is ecologically destructive and unsustainable (Heinberg 2006: 93-98; Friedemann 2007).

If the world oil production does pass the peak in the coming few years and starts to decline irreversibly, then given the heavy dependence of the capitalist world economy on oil, it could lead to a global economic crisis.

Appendix: Data Sources and Construction

In Figure 2, the profit rate is defined as the ratio of pre-tax profits over the capital stock. Data for the US corporate sector are from the US Bureau of Economic Analysis (www.bea.gov), for the Chinese industrial enterprises are from National Bureau of Statistics of China (2006 and earlier years), and for the global 500 corporations are from the *Fortune* magazine, various issues. Before 1989, the data were for the 500 largest US corporations and since 1989, have been for the 500 largest global corporations.

For the US corporations, capital stock is measured by the net value of fixed assets at replacement cost. For the Chinese industrial enterprises, net value of fixed assets is converted from book value to replacement cost using the fixed investment price index. For the global 500 corporations, capital stock is measured by equity capital, which is converted from book value to replacement cost using the US GDP deflator. The conversion of book value of capital into replacement cost of capital follows the following procedure:

$$K(replacement)_T = P_T * \sum_{t=0}^{T} [(K(book)_t - K(book)_{t-1}) / P_t]$$

Thus, the replacement cost of capital (K(replacement)) at time T is derived by multiplying the real capital stock with the price index (P) that is used to deflate the book value. The real capital stock is derived by summing up the real net investment starting with the initial period (from $t = 0$ to $t = T$) and the real net investment for each period is derived from the incremental change of the book value of capital (K(book)) deflated by the price index. Except for the initial period, net investment is assumed to be the same as the initial book value of capital.

In Figure 9, the total labor income is estimated to be the sum of the urban wage income and the rural household disposable income. The urban wage income is derived by multiplying the urban per capita wage income with the urban population. The rural household disposable income is derived by multiplying the rural per capita net income with the rural population. The rural net income includes the net farm income and the wage income earned by migrant workers. Data are from National Bureau of Statistics of China (2006 and earlier years).

The original data for the series presented in Figure 10 are all from National Bureau of Statistics of China (2006 and earlier years).

National Bureau of Statistics of China provides data of depreciation of fixed capital for 1992, 1995, 1997, 2000, and 2002. The share of depreciation in GDP can be calculated for these years. For years between the benchmark years, depreciation shares in GDP are assumed to move along "straight lines" between each pair of benchmark years. For example:

Depreciation share 1998 = Depreciation share 1997 + (Depreciation share 2000 − Depreciation share 1997) / 3

Depreciation share 1996 = (Depreciation share 1995 + Depreciation share 1997) / 2

The estimated shares then are multiplied by GDP to estimate the value of depreciation for each year.

Real investment and real depreciation in constant 1992 prices for each year between 1992 and 2002 are calculated by deflating the nominal fixed capital formation and the nominal value of depreciation with the fixed investment price index. Real net investment for each year equals real investment less real depreciation.

The ratio of cumulative change in real depreciation over cumulative real net investment between 1992 and 2002 is calculated to be 0.077365. The cumulative change in real depreciation between 1992 and 2002 accounts for 70 percent of the total value of real depreciation in 2002.

The total economy real net stock of fixed capital in 2002 is then estimated by dividing the value of depreciation in 2002 by 0.077365. This implicitly assumes that in 1992 the depreciation rate is the same as in 2002, but any impact (on the estimated capital stock of 2002) that would arise from the difference between the true depreciation rate in 1992 and the assumed depreciation rate is likely to be small. The real capital stock (K) for each year between 1992 and 2005 is estimated using the following formula:

$$K_t = K_{t-1} + \text{Real Investment}_t - \text{Real Depreciation}_t$$

For years after 2002, depreciation is assumed to be 7.7365 percent of the current year's capital stock.

After the total economy real net stock of fixed capital is derived for each year between 1992 and 2005, the total economy nominal net stock of fixed capital for each year is derived by re-inflating the real capital stock with the fixed investment price index.

The business sector share of the total economy capital stock for each year between 1992 and 2003 is estimated to be the share of the cumulative business sector real fixed capital formation in the cumulative total economy real fixed capital formation from 1992 to the year in question (that is, the year for which the business sector capital stock is to be estimated). The estimated shares range from 73 percent to 78 percent. The business sector net stock of fixed capital is then derived by multiplying the total

economy net stock with the estimated business sector share. For 2004 and 2005, the business sector share is assumed to be the same as in 2003.

Net domestic product is derived by subtracting depreciation of fixed capital from GDP. The profit (the sum of all property incomes) is derived by subtracting the total labor income and the indirect taxes less subsidies from net domestic product.

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Table 1

Share of the World's Total Current Account Surpluses or Deficits

1995-2006(%)

	1995-2000	2001-2005	2006
United States	-77.8	-94.1	-91.5
Euro Area	14.9	5.9	0.9
Japan	37.6	22.9	18.3
United Kingdom	-6.1	-5.9	-8.6
Other OECD	2.7	9.2	7.4
China	6.5	10.1	26.7
Asia (ex. China and Japan)	4.3	13.1	10.8
Africa and Middle East	0.9	15.4	25.5
Central and South America	-16.1	0.6	5.5
Central and Eastern Europe	1.8	6.4	7.5
World (statistical discrepancy)	31.3	16.4	-2.6

Source: OECD (2007).

Table 2

US Balance on Current Account, 2006

Area	Balance ($ Billion)	% of Total
Euro Area	-79.7	9.8
United Kingdom	-11.1	1.4
Other Europe	-34.9	4.3
Canada	-40.7	5.0
Latin America and Other Western Hemisphere	-110.6	13.6
China	-258.2	31.8
Asia and Pacific (excluding China)	-173.5	21.4
Middle East	-51.5	6.3
Africa	-58.2	7.2
International Organizations and Unallocated	7.1	-0.0
Total	-811.5	100.0

Source: US Bureau of Economic Analysis, *International Economic Accounts* (2007),

Website: http://www.bea.gov/international/index.htm#bop.

Figure 1
World Economic Growth
Annual Growth Rate (3 Year Averages), 1951-2006
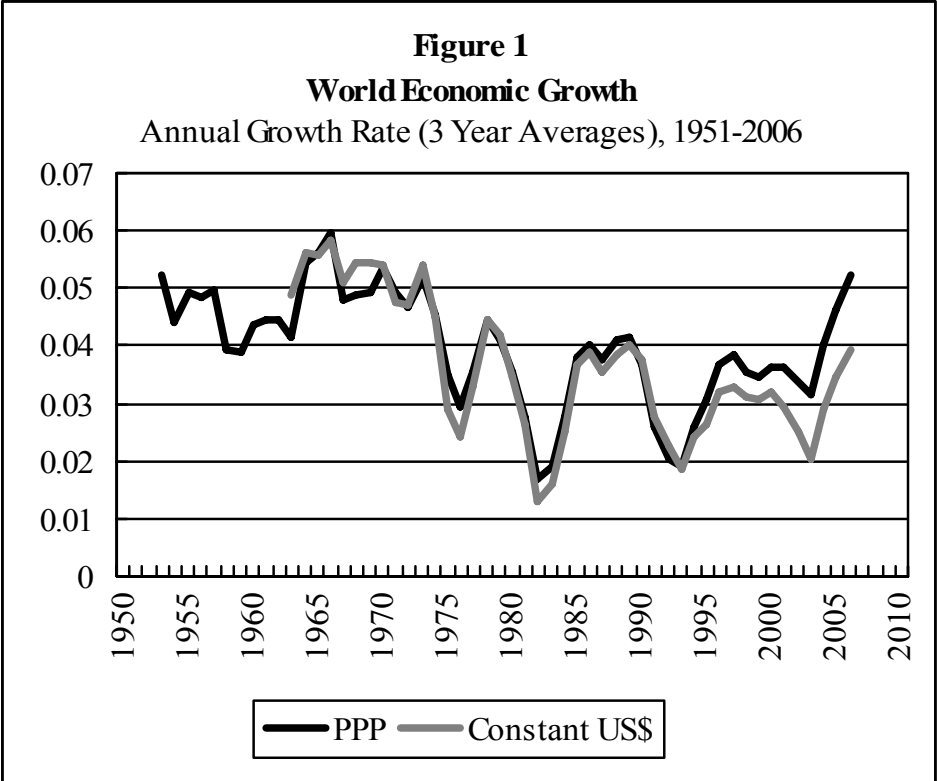
Figure 2
Global Corporate Profitability
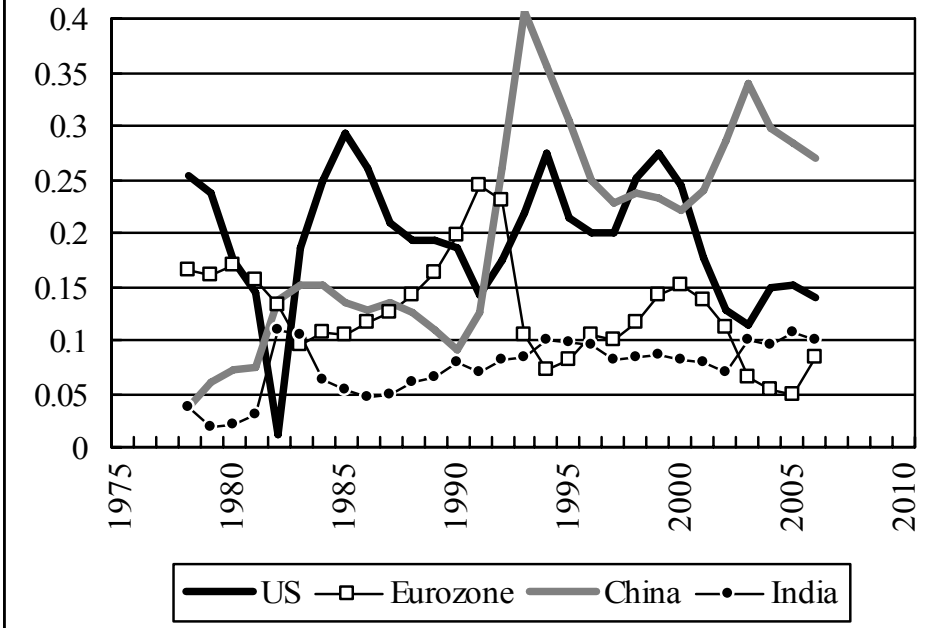Pretax Profit Rates, 1950-2006
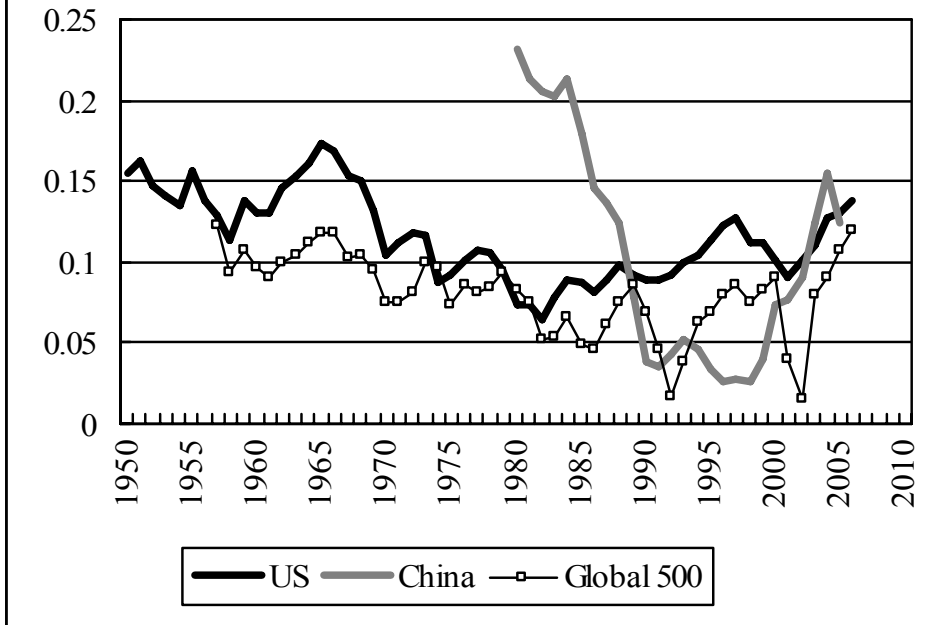
Figure 3
Property Income as Share of GDP
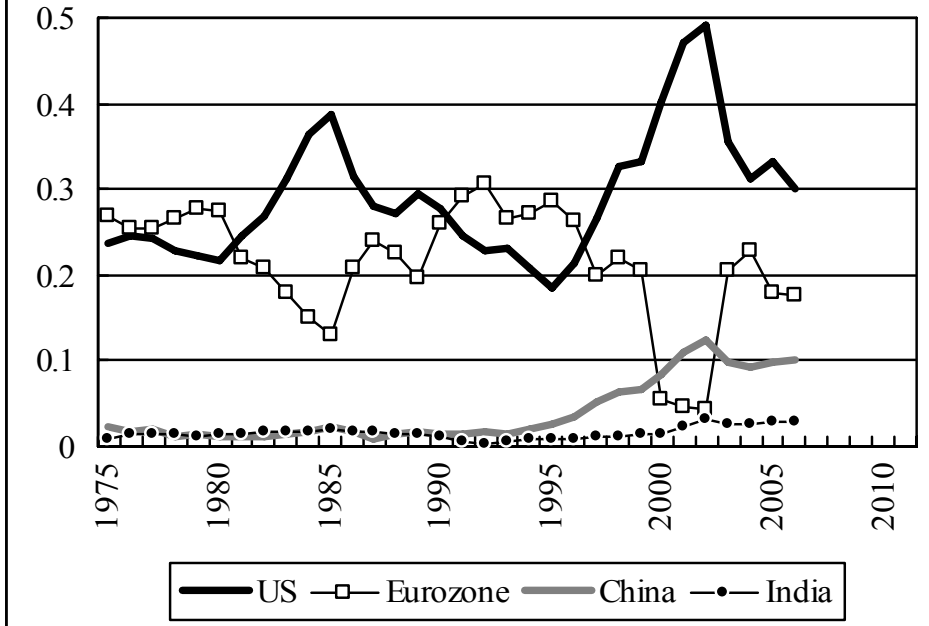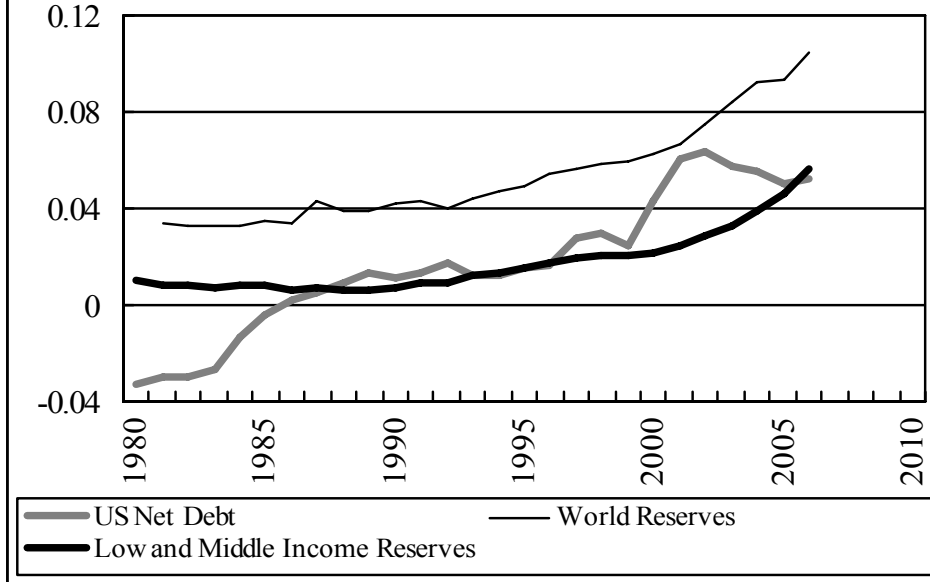Europe and Japan, 1960-2006
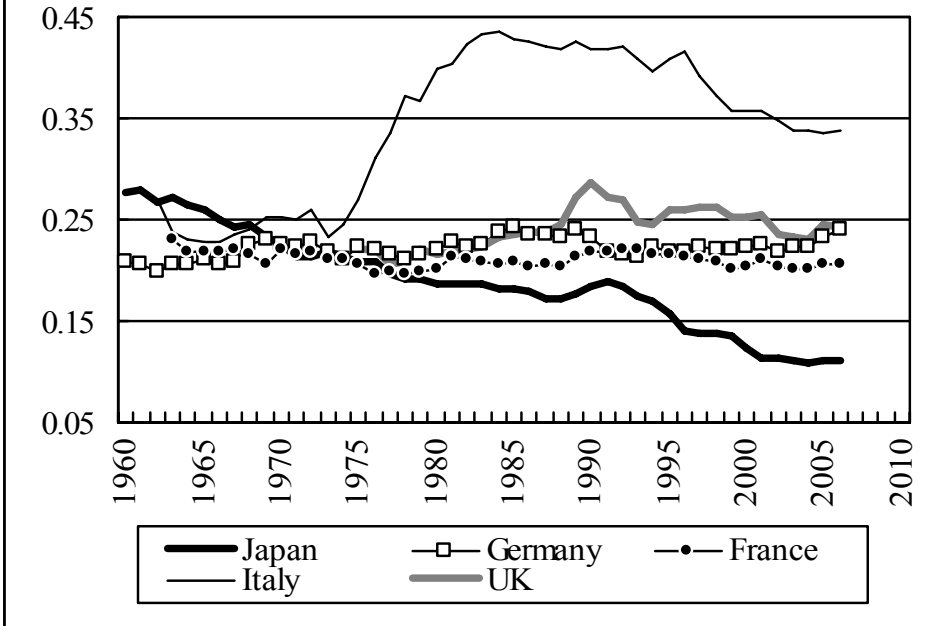
Figure 4

Contribution to World Economic Growth (PPP)
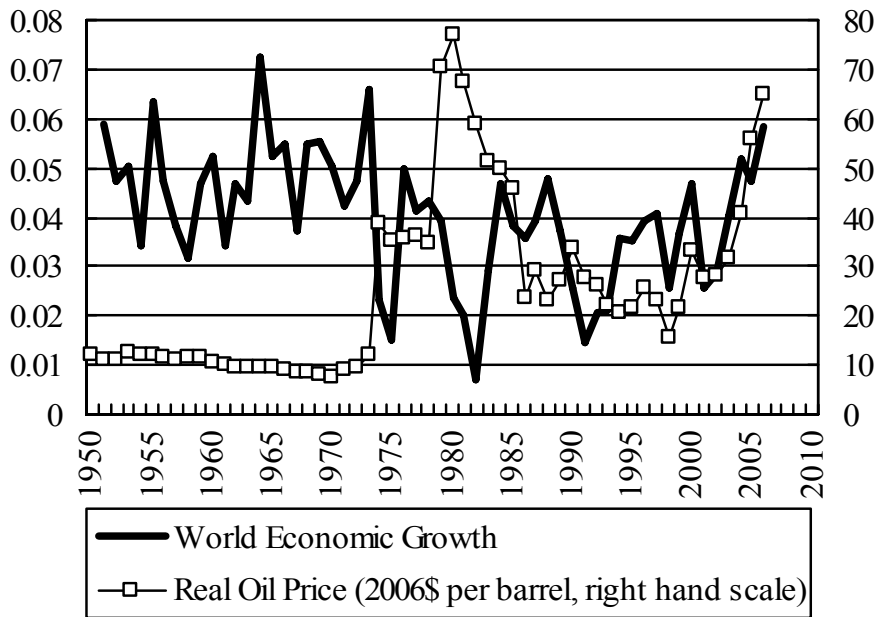
Ratios of 3 Year Changes, 1976-2006

Figure 5
Contribution to Norminal World GDP (Current US $)
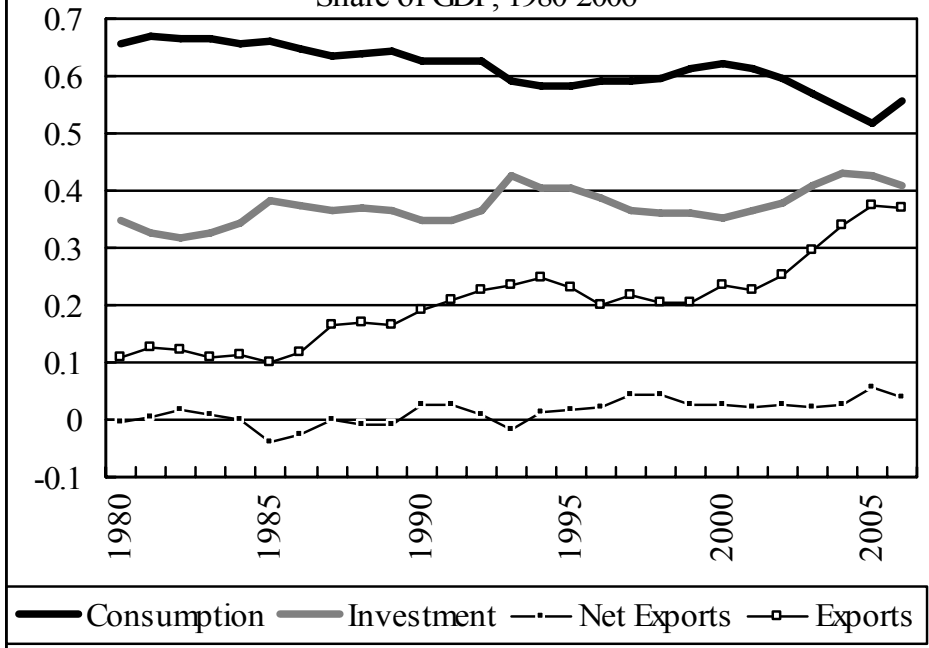Ratios of 10 Year Changes, 1965-2006

Figure 6
US Foreign Debt and the World's Foreign Exchange Reserves (as Ratios to World Nominal GDP)
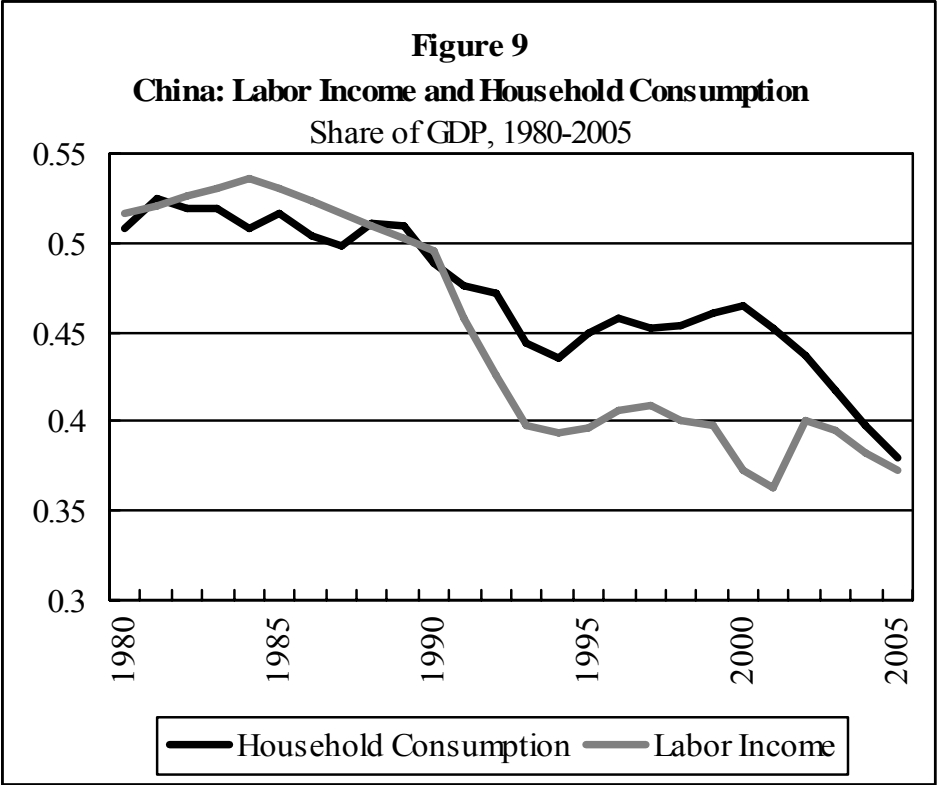1980-2006

Figure 7
Real Oil Price and World Economic Growth
1950-2006

Legend:
— World Economic Growth
—□— Real Oil Price (2006$ per barrel, right hand scale)

Figure 8

Macroeconomic Structure of the Chinese Economy

Share of GDP, 1980-2006

Figure 9

China: Labor Income and Household Consumption

Share of GDP, 1980-2005

Legend: Household Consumption — Labor Income

Figure 10

Profit Rate, Profit Share, and Output-Capital Ratio

The Chinese Business Sector, 1992-2005

Legend: Output-Capital Ratio — Profit Share — Profit Rate