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**THE UNITED STATES EMPIRE OF DEBT: THE ROOTS
OF THE CURRENT FINANCIAL CRISIS**

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INTRODUCTION

The emergence of quite severe global balances of payments disequilibria over the past two decades threatens the very foundations of the international monetary and financial system. The epicentre of this widening chasm can be readily identified in the burgeoning US current account deficits and net foreign debt, on the one hand, and the vast accumulation of current account surpluses and foreign exchange reserves by East Asia, on the other hand. Indeed, the greatest asymmetry in the global economy lies precisely in these growing imbalances across the Pacific. Two central questions will be proposed. First, what are the implications of the decline of the US dollar as the pre-eminent reserve currency and means of international payments and to what extent will the foreign holders of US dollar-denominated assets be willing to bestow the exorbitant privileges of seigniorage enjoyed by the US monetary authorities? Second, will the US itself experience a similar phase of debt-deflation to that which has gripped Japan in the 1990s as a result of the recent sub-prime crisis? The aim of this brief analysis is to provide some tentative answers to these critical questions.

BURGEONING US BALANCE OF PAYMENTS DEFICITS

Since the demise of the post-war, fixed exchange rate system of Bretton Woods in 1971 there has been an explosive growth of international central bank reserves, most of which are denominated in US dollars. The expansion of these reserves has mirrored the widening trade imbalances between the US and the rest of the world (Duncan, 2003: 13). Table 1 summarises global current account balances in the years 1997-2006. The US had incurred a cumulative current account deficit exceeding US\$5 trillion by 2006 (Iley & Lewis, 2007: 159). According to Duncan (2003), between 1969 and 2003, international reserve assets expanded almost exponentially at around 20-fold. Conversely, the East Asian economies, most notably China, have been accumulating quite large balance of payments surpluses and the build-up of substantial foreign exchange reserves. But the build-up of foreign exchange reserves could also induce the expansion of domestic credit and create the conditions for a series of speculative asset-price booms. This scenario can be described as an exemplar of a Minskian phase of a speculative financial mania leading to its eventual crash (Minsky, 1982). The bursting of the asset price bubble, in turn, sows the seeds for the onset of a phase of debt-deflation.

Table 1
Global Current Account Balances, Selected Years,
1997-2006 (US\$ billions)

	<i>1997</i>	<i>2000</i>	<i>2006</i>	<i>2006-2000</i>	<i>% of US Change, 2000-06</i>
USA	-141	-416	-811	-395	–
Japan	97	120	170	50	12.7
Germany, Netherlands, Switzerland	41	5	263	258	65.3
Other developed countries	68	23	-139	-162	-41.0
China	34	21	239	218	55.2
Other developing Asia	-27	26	-12	-38	-9.6
Central and Eastern Europe	-21	-32	-89	-57	-14.4
CIS	-9	48	99	51	12.9
Middle East	11	70	212	142	35.9
Latin America	-67	-48	49	97	24.6
Africa	-6	7	20	13	3.3
Discrepancy	14	176	-1	-177	-44.8
Memo: Fuel Exporters	16	149	396	247	62.5

Source: Iley & Lewis, 2007: 185.

Indeed, in the aftermath of the East Asian financial crisis in 1997-98, the East Asian economies restored their reserve positions and have amassed vast war chests of foreign exchange reserves in order to defend themselves against the possibility of another speculative attack on their respective currencies. The imposition of fixed and managed exchange rates has also offset the pressure for currency revaluations against the US dollar, which would inevitably undermine their export-led strategies of growth. Between 1999 and 2005, East Asian central banks (excluding Japan) accumulated US\$1.25 trillion in reserves. A large share of these reserves have simply been recycled through the purchase of US bonds and securities or re-invested in US dollar-denominated assets. As Arrighi notes, ‘Since Bush took office, East Asian central

banks have added to their Treasury holdings at a rate of nearly half a billion dollars a day, that is, about a third of the average US current account deficit. The funding of the deficit was thus left increasingly to the mercy of these banks' (Arrighi, 2005: 67).

Since 2002, China's current account surpluses have increased quite sharply and now constitute the largest single nation component of the US current account deficit, surpassing even those of Japan. These current account surpluses surged from only US\$68.7 billion in 2004 to US\$158 billion, or 7.1 per cent of GDP, in 2005. By 2006, China's bilateral trade surplus with the US was US\$235 billion, which represented over a third of the total US trade deficit, making China by far the largest country component of the US trade deficit. China's current account surpluses translate into an enormous accumulation of dollar reserves. Between December 2000 and December 2003, foreign exchange holdings of China's central bank more than doubled – from US\$166 billion to US\$403 billion. In 2006, this figure had exceeded US\$1.2 trillion of which US\$600 billion was denominated in the US currency and had reached US\$1.7 trillion in 2008. In the absence of central bank intervention through open market operations, the vast build-up of excess liquidity threatens to induce a phase of financial speculation in the real estate and equity markets reminiscent of the speculative boom which had preceded the East Asian financial crisis in 1997-98. In order to maintain its competitive advantage, China is systematically intervening in the foreign exchange markets to maintain an undervalued exchange rate. China pegs its currency to the dollar and the yuan has traded, with small fluctuations, at about 8.28 per dollar since 1998.¹ This situation has considerably improved China's competitive advantage, making the yuan undervalued by between 25 and 40 per cent, according to most estimates. At the same time, the temptation of the Chinese central bank to diversify out of US dollar denominated bonds and securities threatens to trigger a crash in the US bond market, which would ultimately imperil China's major export market in the US in the event of a US recession (Taggart-Murphy, 2005: 61). US trade officials have argued that the under-valuation of the Chinese yuan has contributed to the trade deficit with China and has been a major factor in the hollowing out of the US manufacturing sector. Needless to say, these trade imbalances and currency disputes have the potential to trigger a phase of destabilising trade wars between China and the United States.

¹ China introduced a new exchange rate regime in July 2005. The yuan would be set with reference to a basket of currencies and allowed to fluctuate by 0.3% daily either side of parity on a bilateral basis. This implied a cumulative movement of 6.4% either side of parity over a monthly period. However, central bank interventions have made these fluctuations negligible. The yuan remains essentially an adjusted peg in relation to the US dollar, with very limited flexibility (Frankel & Wei, 2007: 582-83).

The other major source of global surpluses has recently emanated from the non-OECD oil producers. Whereas East Asian surpluses exceeded US\$700 billion in 2006-07, the surpluses of the non-OECD oil producers were estimated to be about US\$550 billion in 2007 (Burrell, 2006). The cumulative surpluses of the oil exporters were estimated to be about US\$1.7 trillion between 2002 and 2007. This enormous expansion of petro-dollars has contributed to excess liquidity which has fuelled the equity boom over this period. However, these OPEC surpluses can be designated as cyclical in the sense that commodity prices tend to be highly dependent upon the vagaries of international trade cycles. By contrast, the East Asian surpluses are essentially structural and signify a profound shift in the international competitiveness of manufacturing in East Asia's favour. Deindustrialisation in the US thus constitutes the rationalising dynamic of this shift in the productive centre of gravity to East Asia (Glyn, 2006).

Consequently, this virtuous circle implies an increase in the net US external debt but, at the same time, makes East Asian holders of US dollar denominated assets quite vulnerable to a sudden depreciation of the US dollar (Schnabl, 2005: 161). US deficits have been estimated to have absorbed about two thirds of the combined global current account surpluses (Roubini & Setser, 2004: 26). The US current account deficit improved from \$US811bn (6.29% of GDP) in 2006 to \$US692bn (4.9% of GDP) in 2007 (BIS, 2008: 13). This compares to US\$200bn (2.5 % of GDP) in 1998, and US\$416bn (4% of GDP) in 2000. Summers (2004) has described the current configuration as a 'balance of financial terror': 'The term "balance of financial terror" refers to a situation where we rely on the costs of others of not financing our current account deficit as assurance that financing will continue' (Summers, 2004: 8).

In the event of a sudden dollar devaluation, the fallacy of composition would suggest that the incentive for individual central banks to diversify out of an over-reliance of US dollar denominated assets will intensify as the US continues to experience an ever-growing and cumulative stock of foreign debt, which in turn puts pressure on a substantial dollar devaluation. This could quite easily become self-fulfilling to the extent that, if a growing number of central banks feel obliged to protect themselves against a falling US dollar by diversifying their reserve holdings, the whole system of dollar recycling could collapse with quite devastating consequences. There is a classical dilemma akin to the prisoner's dilemma in game theory: all central banks would be assured stability if no single central bank decided to diversify out of US dollar reserve assets but, as the risk of a dollar crisis increases, each central bank is impelled to insulate itself from incurring huge losses.

The US has been reluctant to preside over a sharp exchange rate adjustment because of the consequent short-term pain that this would inflict in terms of rising unemployment and a fall in output. Indeed, the US continues to live beyond its means by exploiting its privileges of dollar seigniorage (Eichengreen, 2004: 28).

In the event of a prolonged US recession, however, the export-led strategies pursued by East Asian countries will encounter their limits. Sooner or later, these surplus countries will be forced to curtail their massive central bank interventions to mitigate the effects of exchange rate appreciation and their support for the US dollar will begin to wane. An effective exchange rate depreciation in the US appears to be consistent with the view that growing and cumulative US current account deficits will become more difficult to finance as investors diversify their holdings of US dollar assets into other key currencies in order to hedge their exposure to exchange rate risk. In other words, if yields and spreads are no longer attractive relative to other key currencies, US dollar denominated assets will be liquidated (Dooley, *et al*, 2003: 5). In this context, the US continues to act as the issuer of the most important international reserve asset, while its financial markets intermediate the allocation of global savings from the surplus countries/regions to the deficit countries/regions.

The problems that manifest themselves as a result of these growing global payments imbalances assume a logic in which the surplus countries experience incessant pressure toward exchange rate appreciation, which tends to induce recurrent asset booms in the non-tradeable sector, notably in real estate and thus heightening financial fragility. On the other hand, the deficit countries experience a concomitant easing of financial conditions as the influx of these excess savings from the surplus countries tends to stimulate investment spending and the accumulation of private debt, which finances hyper-excessive consumer spending. It has been estimated that 10 Asian countries held more than \$US3.4 trillion, or 59 per cent, of foreign exchange reserves in 2007 (Lim, 2008: 9). The excess saving of the surplus countries therefore acts as a channel through which monetary stimulus and credit growth becomes increasingly global (BIS, 2008: 8). Minsky's financial instability hypothesis can be modified – in the light of international financial deregulation – to apply to the global transmission of financial instability through the greater ease by which highly liquid, short term funds are able to cross national borders and engage in speculative trading. These destabilising flows of capital are also amplified by increased exchange rate exposure and international interest rate arbitrage and speculation, which are capable of setting in train self-fulfilling speculative manias and cross-border contagion (Wolfson, 2002: 397).

In 2005, the liabilities of the US exceeded its claims on the rest of the world by about \$US4 trillion (McKinnon, 2005: 4). Foreign central banks have accumulated quite substantial stocks of US Treasury bonds, almost half of which are held in official foreign exchange reserves. Since US assets and liabilities continue to be denominated in US dollars, US financial institutions have so far (until mid-2008) withstood the fluctuations of the US dollar and have averted a major threat to their creditworthiness. As Krugman has cogently argued:

The United States has very little external debt denominated in foreign currency; its liabilities, consisting overwhelmingly of dollar bonds, foreign-owned stocks, and direct foreign investment, can to a first approximation be considered a claim denominated in terms of US goods and services. On the other hand, the bulk of US external assets consist of foreign stocks and direct investment, both of which can to a first approximation be considered claims denominated in terms of foreign goods and services. So a real depreciation of the dollar raises the value, in terms of US GDP, of US external assets without increasing the value of US external liabilities. As a result, dollar depreciation reduces net external debt (Krugman, 2007: 442).

Paradoxically, the US net external indebtedness has not increased as dramatically as one would suppose because of this valuation effect. In the absence of this perverse valuation effect, the net liability of the US would have risen from about US\$2,340 billion in 2001 (or 23% of US GDP) to US\$4,795 billion (37.5% of US GDP) at the end of 2005 (Izুক্তetta & Irvin, 2007: 112-113).

THE NET INTERNATIONAL INVESTMENT POSITION OF THE US

The broadest measure of a nation's financial balance sheet – or the amount a nation's residents owe to the rest of the world – is the net international investment position (NIIP). Since most US debt is denominated in US dollars and most US foreign assets are denominated in foreign currencies, the US net international investment position tends to increase in the event of an effective exchange rate depreciation. At the same time, the US acts as an international financial intermediary and enjoys relatively higher returns on its foreign investment than foreigners earn on their respective US investments (Papadimitriou, *et al*, 2006: 4). Over the past three decades, however, the United States' NIIP has deteriorated, which is reflected in the increase in net foreign debt. In the 1970s, the net foreign debt was about one and a half times GDP. By 1985 it had doubled. By 2005, the total net foreign debt was estimated at three and a half times GDP, or around US\$44 trillion (Magdoff, 2006: 7). However, the NIIP of the US peaked in 1982 at over US\$329 billion, or about 12 per cent of GDP. Since then, the NIIP has experienced a dramatic deterioration, estimated at minus 24 per cent of GDP, or equivalent to minus US\$2.65 trillion in 2003 (Gray, 2004: 13). The value of foreign owned US assets was estimated at US\$3.3 trillion, or about 30 per cent of its GDP, in 2005 and this share had doubled in the years 2001-05 (Ertuck, 2005: 1).

Despite the alarming deterioration in the US's NIIP, the net inflow of investment income has remained positive until 2005. This apparent anomaly reflects the role of the US as the foremost international financial intermediary as well as enjoying the exorbitant privileges bestowed by the pre-eminent role of the dollar as the major reserve asset and international means of payments. The US therefore continues to derive a

profitable stream of income from its foreign assets which, to a large degree, compensates for its net liabilities abroad (Bibow, 2006: 19). There has also been a substantial increase in US assets held by foreigners, growing from only 2 per cent of the total value of the US credit market in the early 1970s to about 14 per cent in 2006. Similarly, the share of foreign ownership in US equities increased from 7 per cent in the early 1990s to about 12 per cent in 2006 (Papadimitriou, *et al.*, 2006: 4).

A very high proportion of US assets abroad are held in equities. By the end of 2005, more than 55 per cent of the US stock of US\$10 trillion in overseas assets were in the form of corporate equities. In stark contrast, foreign claims on the US are concentrated in the US debt market. These financial claims were estimated at US\$12.7 trillion in 2006 (Iley & Lewis, 2007: 147-48). Even though the US is a net creditor in relation to foreign direct investment and the ownership of equities abroad, this is more than offset by its net liability position in the more interest-sensitive debt markets. This apparent dichotomy resembles the financial structure of a venture capitalist in the sense that the US's 'portfolio' is highly leveraged, with foreign liabilities over four times the size of net foreign debt and assets held abroad worth over three times net foreign debt (Iley & Lewis, 2007: 150). The bias towards the holding of debt and interest-bearing assets by foreigners reinforces the seigniorage privileges enjoyed by US financial markets and the pre-eminent role performed by the US dollar as both a store of international value and means of payments. As Gray (2004) has quite succinctly observed: 'An international financial system in which the hegemon finances decreases in its international net worth (INW) by increasing its rate of dissaving (as non-residents acquire more and more dollar assets) is a case study in Ponzi finance' (Gray, 2004: 110).²

A fall in the effective US exchange rate implies an improvement in US net investment income by increasing the dollar value of its overseas earnings. At the same time, the value of its stock of net foreign debt will

² Minsky (1992) argues that 'Ponzi' financial units are based upon the expected cash flows required to meet current financing commitments. The current cash flows are not sufficient to cover interest payments on outstanding debt, which essentially presupposes that a rise in future asset prices will cover their liabilities. Needless to say, these financing units are highly exposed to even small increases in the rate of interest, or a fall in asset prices. 'Such units can sell assets or borrow. Borrowing to pay interest or selling assets to pay interest (and even dividends) on common stock lowers the equity of a unit, even as it increases liabilities and the prior commitment of future incomes. A unit that Ponzi finances lowers the margin of safety that it offers the holders of its debts' (Minsky, 1992: 7).

diminish via the 'valuation effect' of a dollar depreciation. In short, unlike the rest of the capitalist world, the US is capable of borrowing abroad in its own currency. The risk of a dollar depreciation is incurred almost entirely by the foreign holders of US dollar denominated assets. Between the beginning of 2002 and November 2007, the dollar had depreciated by 21 per cent on a trade weighted basis and more than 50 per cent against the euro (Godley *et al.*, 2007: 8). It is because of this dollar depreciation since 2002 that the US has been able to prevent a major deterioration of its NIIP. This rather perverse logic has been possible because the investment income balance (the difference between what the US pays and what it earns from the rest of the world) has not deteriorated as much as one would expect from a country experiencing quite chronic and cumulative current account deficits. Consequently, the US has so far been able to finance these trade deficits without experiencing a major sell-off of US bonds and securities.

Since almost all US foreign liabilities are denominated in its own currency and about 70 per cent of US foreign assets are in foreign currencies, a dollar depreciation represents a net transfer of wealth from the rest of the world. Indeed, a 10 per cent depreciation of the US dollar translates into a transfer of around 5 per cent of US national income from abroad, which is sufficiently large enough to offset the US trade deficit itself (Iley & Lewis, 2007: 107). The extent to which the US can sustain this apparent enigma will ultimately depend upon the willingness of its international capitalist rivals to continue to finance the US current account deficits and the burgeoning foreign debt in the event of a major collapse of the US dollar. As Roubini and Setser note:

In a nightmare scenario, the US would have to cut its current account deficit sharply to reduce the amount of new financing that it needs to attract from the rest of the world even as it is starting to lose the advantages of being a reserve currency. In such a scenario, the US would have to offer foreigners much more attractive returns – either higher interest rates or forms of borrowing that transfer the risk of further depreciation from US creditors to US borrowers – to convince foreigners to continue to hold their savings in the US. The US could face higher interest rates on its existing stock of debt even as it has to curtail its new borrowing (Roubini & Setser, 2004: 44).

The received wisdom is that foreign holders of US dollar assets cannot continue to finance US external deficits indefinitely. Sooner or later, the United States will be compelled to make a painful structural adjustment by curtailing its domestic consumption spending on imports (Davidson, 2006: 479). This adjustment will inevitably impart a depressive impulse on those countries in East Asia, which have relied too much on an export-led strategy of growth and to which the American domestic market continues to act as a market of last resort. The impact of a US recession could lead to a dampening of effective demand and falling profitability in those sectors in East Asia most exposed to exports as an engine of growth. It is at this

moment that the problem of ‘conflicted virtue’ arises (McKinnon, 2005). In the event of a sudden and quite severe dollar depreciation, the foreign holders of US dollar-denominated assets will confront enormous losses. The appreciation of the domestic currency against the US dollar could induce a deflationary adjustment domestically and set in motion a depressive spiral of falling profitability and income. Under the more extreme cases, analogous to the Japanese experience of the 1990s, the onset of deflationary trap could lead to a collapse in investment and the level of effective demand. ‘Thus we have the syndrome of conflicted virtue for creditor economies, which is the mirror image or twin problem of original sin for debtor countries’ (McKinnon, 2005: 7).

The real danger, however, could emerge in which an event or a confluence of events, hastens a flight from the dollar and precipitates a phase of severe financial turbulence in world markets. In this Minskian drama, financial fragility could cause a series of cascading bankruptcies and financial defaults as holders of highly liquid US dollar denominated assets switch their portfolio preferences to non-US dollar assets (Gray, 1990: 283). This critical moment would signify the exhaustion of the dollar:

Exhaustion can come about for either of two reasons: the loss of confidence on the part of foreign lenders and their unwillingness to continue to hold or to increase their holdings of dollar-denominated assets: and, second, economic and political pressures in the US that derive from the burden in the domestic economy of the duties of being the global locomotive (injecting aggregate demand into the global system by running current account deficits, thereby reducing aggregate demand for domestic capacity), may become intolerable (Gray, 2004: 8).

FAUSTIAN FINANCE AND THE AMERICAN DREAM

Since the emergence of floating exchange rates and deregulated financial markets over the past three decades, most OECD countries have experienced the ascendancy of shareholder value over the previous ‘Fordist’ model in which the managers – or the ‘technostructure’ to paraphrase Galbraith (1976) – played a strategic role in investment decisions. Shareholder value reinforces the tendency toward deregulation, privatisation, restructuring and the internationalisation of dollar finance. This process appears to be more advanced in the English-speaking countries than in East Asia and Europe. As Boyer has noted:

The imposition of financial norms, such as shareholder value, requires a new and coherent architecture for the mode of governance of firms, the form of competition, the wage/labour nexus and the objectives of monetary policy, public budget and tax system...The stability of an equity-based regime depends on monetary policy which controls financial bubbles and thus the diffusion of finance may push the

economy into a zone of structural instability. The next major financial crisis may originate in the USA whose economy approximates most closely to the model (Boyer, 2000: 111).

Shareholder value presupposes a more rigorous form of market discipline imposed on private corporations in which the over-riding imperative is to maximise short-term financial returns on investment. Financial returns therefore increasingly assume potent hegemonic forces in the dynamics of capital accumulation. In this sense, Pigou's 'wealth effect', which transforms millions of ordinary workers into investors, acts as a powerful transmission mechanism in the maintenance of the purchasing power of consumers (Pollin, 2003: 65).

The 1990s stock market boom was sustained by this massive wealth effect, which reached its zenith just before the 'tech wreck' in early 2001. Although the rate of aggregate profits began to decline in 1995-2000, the increased rate of investment was driven by the consummate ease with which rising equity prices had over-valued market capitalisation and had induced an unprecedented borrowing binge. Spurred by the easing of monetary policy, or what Wall Street had celebrated as the 'Greenspan put option' after the East Asian financial meltdown, corporations resorted more than ever to external borrowing to finance investment. During the post-war boom era of 1950-75, non-financial corporations had relied upon internal funds to finance investment with retained earnings accounting for 90 per cent of their capital spending. In stark contrast, in the years 1995-2000, external borrowing to finance capital accumulation or to engage in mergers and acquisitions had reached its highest level in history. By 2000, gross equity issues by non-financial institutions had increased four-fold from the previous peak in the late 1980s (Brenner, 2006: 295). Assets invested in hedge funds had more than tripled between 2000 and 2007, estimated at US\$1.5 trillion (Wade, 2007: 113). As Nesvetailova notes:

When a large pool of assets become near-money, it can have a direct impact on liquidity levels, which can cause increases in asset prices as real interest rates decline. Since the euphoria entices new investors into the boom and so increases asset turn-over (which causes liquidity in these assets to increase), it can have a self-reinforcing effect by making a larger amount of assets more money-like. The addition of very large, highly traded securities can cause a market's liquidity to increase just as if there had been an increase in the money supply (Nesvetailova, 2005: 401).

Indeed, the US Federal Reserve itself had created a longstanding moral hazard risk by easing monetary policy or injecting liquidity into the financial system whenever signs of instability threatened Wall Street. This was especially so after the collapse of the so-called 'new economy' boom after 2001 in which the

NASDAQ index fell by 40 per cent between September 2000 and January 2001. The US Federal Reserve reduced the short-term interest rate from 6.5 per cent to 1 per cent between 2000 and 2003 (Li & Zhu, 2005: 6). At the same time, the US government enacted expansionary fiscal policies and incurred growing fiscal deficits, partly as a result of the war in Iraq, which stimulated the recovery from the mild recession of 2001-02. The US budget surplus of 2.4 per cent of GDP in 2000 was reversed to a deficit of 4.6 per cent of GDP in 2003.

In retrospect, this phase of excess liquidity only served to fuel asset price inflation, most notably in the housing market. But the rapid expansion of liquidity has not been accompanied by a concomitant increase in the level of effective demand or an improvement in real wages. This accommodating monetary policy created an enormous wealth effect at the very moment when real net private saving in the US was negative: As Lipietz warned: 'But precisely there lies the danger: in a capitalist world without re-distribution of a Fordist type but with a 'flexible' labour market, the excess of money creates no inflation in the price of labour or of commodities, but does create it in the price of financial assets. Hence, a crash can occur at any moment in the United States' (Lipietz, 2001: 35). Since consumption depends more upon credit creation than income growth, the emergence of a debt-trap can lead to a corresponding collapse in asset prices and set in train the dynamics of debt-deflation as credit is rationed in the event of a severe credit crunch. A depressive phase of financial retrenchment could emerge under these extreme circumstances (Parenteau, 2004: 57).

Household debt in the US rose from around 93 per cent of disposable income in 2000 to exceed 130 per cent by the end of 2006 (Iley & Lewis, 2007: 11). This dramatic upsurge in household indebtedness appeared to coincide with the end of the 'new economy' bubble and was instrumental in providing a major catalyst in the recovery from the mild recession of 2001-02. By mid-2006, household debt service payments reached a record high of 14.5 per cent of disposable income. Much of this debt was incurred during the housing boom of 2002-05. For instance, between 2000 and 2004, household wealth based on the ownership of real estate increased by more than 50 per cent (Brenner, 2006: 218). The level of borrowing as a percentage of personal disposable income was estimated to have been more than twice the level at the peak of the dot.com boom in 2000 and more than 20 per cent higher than the previous record set in 1985 (Brenner, 2006: 315). At the time, the US personal saving rate was negative at minus 0.5 per cent of GDP. This implies that mortgage debt in the US has been increasingly financed by foreign holdings of mortgage-backed securities. By March 2006, these securities were estimated at over US\$1 trillion and accounted for about a third of the increase in net foreign indebtedness since the mid-1990s (Iley & Lewis, 2007: 187).

Indeed, as the US Federal Reserve eased interest rates after the bursting of the dot.com bubble, real estate was perceived as a relatively safe haven by investors. The subsequent housing boom created a whole new plethora of exotic mortgages, the so-called sub-prime market, which offered low income earners 'interest-only' and 'option adjustable rates' mortgages. These new Ponzi schemes soon became a ticking time bomb as the original low interest payments were later adjusted upwards, which dramatically increased the debt burden. Needless to say, mortgage defaults exploded. The entire debt pyramid generated by these parasitical forms of financial bondage – or what Harvey (2003) has described as the processes of 'accumulation through dispossession' – were governed to a large extent by a deregulated banking system in which banks were not obliged to report how many of these sub-prime mortgages had been incurred. The risk was essentially diversified by re-packaging these financial units to the large hedge funds in Wall St.

Such funds are among the institutions that are relied most heavily in issuing commercial paper in the past few years. As recently as the end of 2006, Wall St banks lent liberally to such funds, and much of that borrowed money was used to invest in huge packages of mortgages. However, when it became increasingly clear that large numbers of homeowners could not repay their mortgage obligations, the cash flowing to hedge funds dried up, and fund managers found themselves sitting on enormous losses. (Whalen, 2007: 9)

One of the central tenets of the Washington consensus and pursued remorselessly by the IMF, has been the neoliberal view of the ostensible benefits that financial deregulation would bring about. Throughout the 1980s and 1990s, most countries reduced or abolished restrictions on capital movements and enacted policies of domestic financial deregulation. These policies inevitably led to the rise of highly liquid, speculative short-term flows of capital, mostly emanating from offshore financial centres, which began to have a destabilising impact on international financial markets and hastened a whole series of financial-economic crises in Latin America, East Asia and Russia (O'Hara, 2003: 35). In the US itself, regulations which had limited domestic banks to the role of financial intermediaries, were relaxed to allow commercial banks to engage in more speculative activities through the creation of banking affiliates. These transactions could be made outside the balance sheets of the banking system and allowed commercial banks to engage in the trading of securities and in the underwriting of debt. 'Thus, the banking system that emerged from the 1980s real estate crisis no longer primarily served business lending, nor was it primarily dependent on net interest margins for its income. Rather, the system was based on the ability of the banks' propriety trading desks to generate profits and to produce fee and commission income' (Kregel, 2008: 10).

Financial deregulation witnessed a decoupling of the functions performed by financial intermediation as commercial banks were no longer obliged to evaluate risk and the creditworthiness of borrowers since the

loans which were originated could be sold to the secondary bond markets in the form of collateralised assets. This implied that the traditional role of banks in the evaluation of risk was transferred to the powerful credit agencies. The primary concern of banks was the ability to sell these collateralised assets in order to earn a fee or a commission. These assets, in turn, were selected on the basis of their investment yield rather than by the past credit profile of the borrower. In other words, financial deregulation allowed banks to issue loans and sell these assets into secondary markets, which were then re-packaged and blended into other classes of yield bearing financial assets. The whole logic of 'securitisation' was aimed at overcoming financial regulations, which had prevented formerly illiquid assets held in banks' own portfolios, from being transferred into banking affiliates and sold into secondary bond markets.

Consequently, the secondary bond markets assimilated these collateralised assets into mortgage-backed securities (MBSs), which were issued on the basis of their yield calculated in terms of the expected streams of income in the form of interest and principal payments from the underlying pool of mortgage debt. As banks moved their securitised loans off their books, there was a proliferation of mortgage companies and real estate developers who entered the market, which had the effect of accentuating the gulf between the ownership of assets and the risks incurred. The whole process led to the downgrading of credit risk, outright fraudulent practices and the alarming growth of Ponzi schemes. Indeed, in the aftermath of financial deregulation, MBSs emerged as one of the largest pools of financial assets traded in the US capital markets (Breitel, 2008: 29). It was the rapid growth of these new classes of engineered financial assets, known as collateralised debt obligations (CDOs), which acted as the trigger to the sub-prime crisis as defaults began to escalate. The value of CDOs issued had tripled between 2004 and 2006, from US\$125 billion to US\$350 billion per year (Lim, 2008: 4). As defaults mounted, the entire structure of debt began to collapse and the contagion effect soon spread to safer assets as investors lost confidence. Widespread panic led to a stampede out of these markets, which hastened a crash and the ultimate termination of funding for CDOs.

Given the enormous short-term profits being made, the Wall St banks appeared blissfully unconcerned about the fact that the growing volume of CDOs were being built upon an enormous mass of highly questionable and ultimately non-redeemable debt. The major credit agencies, Moody's, Fitch and Standard and Poor's, shared in the vast profits of the boom at the cost of abandoning their supposed role of providing prudent monitoring and oversight of the quality of the underlying pools of mortgage debt. (Breitel, 2008: 33)

In the decade 1997-2007, real estate values had more than doubled from about US\$10 trillion to over US\$20 trillion. Home mortgage liabilities rose even faster during this period, from US\$2 trillion to over US\$10 trillion (Wray, 2007: 27). The ratio of the median house price to median household income increased from

about 3 times in 2000, which reflected a relatively stable ratio over the previous three decades, to a historically unprecedented ratio of 5 times in 2006 (Lim, 2008: 2). Indeed, between 1995 and 2007, house prices had risen by more than 70 per cent in real terms (adjusting for inflation). This represented an additional US\$8 trillion generated by the housing wealth effect (Baker, 2007: 2). The housing boom was doubtless fuelled by the easing of monetary policy as the interest rate on mortgages fell to a 30-year low, from 8.29 per cent in June 2000 to 5.23 per cent in June 2003 (Brenner, 2006: 315). In this speculative frenzy, the proportion of Ponzi financial units was on the ascendant. Sub-prime mortgages accounted for 20 per cent of total mortgages issued in 2006. These loans grew by almost 5-fold between 2001 and 2005, estimated at an average of US\$625 billion annually (Baker, 2007: 10).

Sooner or later, however, the 'Minsky moment' was imminent as these inflated market values retreated to their historical averages. Furthermore, the home mortgage debt had increased faster than the market value of these assets as households had indulged in a hyper-credit binge, financed to some degree by leveraging their home equity. It has been estimated that the propensity to consume out of each additional dollar of housing wealth is between 4.5 and 16 cents. Every dollar of home equity which is leveraged represents 10 to 50 cents of additional consumer spending (Papadimitriou, *et al.*, 2007: 7). As house prices began to fall from early 2006 onwards, the reverse wealth effect led to a severe retrenchment of private spending. It has been estimated that a 20 per cent fall in house prices is equivalent to a US\$2 trillion destruction of asset wealth. At the same time, mortgage debt as a share of disposable income had increased from 60.9 per cent on average during the 1990s to over 75 per cent in 2007 (Boushey & Weller, 2008: 3). By the beginning of 2008, an estimated 8.8 million households or a tenth of the total, had experienced negative equity (Blackburn, 2008: 71). Real estate prices fell on average by 10.2 per cent between January 2007 and February 2008; the largest fall in the Case-Shiller home price index in over twenty years (Sapir, 2008: 90). Defaults on mortgages increased from early 2007 onwards and by February 2008, more than 24 per cent of sub-prime mortgages were in foreclosure. This represented more than 1.3 million households which were facing foreclosure, an increase of 79 per cent from the previous year (Sapir, 2008: 90). By mid-2008, the number of monthly foreclosures reached levels not witnessed since 1929, on the eve of the Great Depression. The inevitable retrenchment of household wealth will doubtless lead to cascading declines in consumer spending and a dampening of the level of effective demand. 'The system thus seems poised for a Minsky-Fisher style debt deflation that further interest rate reductions will be powerless to stop' (Kregel, 2007: 26).

The initial shock waves of the sub-prime crisis occurred in July 2007 when two Bear Sterns hedge funds, which held about US\$10 billion in MBSs, went into liquidation and were later sold at a fraction of their market value to JP Morgan, supported by a US\$30 billion credit line from the US Federal Reserve Bank (Foster, 2008: 8). This crash was soon followed by the failure of the British mortgage lender, Northern Rock,

which was eventually bailed out and nationalised by the government. In response to the emerging credit crunch, the US Federal Reserve Board injected liquidity into the financial system and drastically cut the prime rate from 4.75 per cent in September 2007 to 3 per cent in January 2008. In addition, the US Congress convened to announce a fiscal stimulus package of US\$150 billion in tax cuts. In March 2008, the world's central banks co-ordinated an emergency line of credit of US\$200 billion to distressed banks (Blackburn, 2008: 65). At about the same time, the US Federal Reserve Bank injected an additional US\$400 billion into the financial system. Interest rates were cut yet again by 0.75 per cent to 2.25 per cent in March. By early September, the US Treasury intervened to bail out mortgage insurers and lenders, Fannie Mae and Freddie Mac, which had incurred over US\$15 billion in losses and had shed about 80 per cent of their shareholder value over the previous year. These two government-sponsored mortgage companies own or guarantee about half of the US\$12 trillion mortgages in the US. For the first time in over 50 years, the reserves of US banks held by the US Federal Reserve, were negative. If the crisis spreads to defaults in other debt markets, the entire US banking system could be imperilled.

By mid-2008, these sub-prime defaults have threatened the very citadels of US capitalism as the spectre of a severe credit crunch began to reverberate in Wall St itself. The emergence of a pervasive credit crunch signifies an evaporation of bank lending to the private sector, which is also accompanied by a deterioration of the balance sheet of banks as the rate of non-performing loans skyrockets. As the corporate sector experiences a falling rate of profit, the ability to service previous debts creates widespread and pervasive financial distress and a rising tide of bankruptcies. The tightening of credit conditions leads to a scramble for liquidity and a rebalancing of portfolios away from equities and toward more liquid assets in bonds and securities. Long-term interest rates also rise but at a slower rate than short-term rates, which leads to an inverted yield curve as higher long-term rates cause a further portfolio adjustment into long-term bonds (Arestis & Karakitsos, 2004: 32). It can be surmised that the harbinger of a global financial crisis is emerging as the fall-out from the sub-prime crisis begins to engulf global markets.

CONCLUSION

The empire of debt signifies the final historical vestiges of *Pax Americana*. The US economy is effectively caught in a debt trap. On the one hand, as the world's largest debtor nation, it is impelled to attract a net inflow of capital in order to finance its ever burgeoning and cumulative current account deficits. On the other hand, the US needs to ensure that the rate of return on US dollar assets are high enough to maintain this inflow of capital and prevent a loss of confidence in the US dollar. Since the demise of the Bretton Woods system since the early 1970s, the US has enjoyed the enormous benefits of international dollar seigniorage. Since 2000, the US's net international investment position has deteriorated quite dramatically

but the immanent flight from US dollar assets has been temporarily postponed because the US continues to exploit its hegemonic position as the pre-eminent international financial intermediary. Sooner or later, however, this position will no longer be tenable and a deflationary process of internal adjustment will occur as the fall-out from the vast accumulation of private debt could precipitate a phase of quite severe debt-deflation, similar to the Japanese experience in the 1990s (Halevi & Lucarelli, 2002). The logic of capitalist crises is precisely what Schumpeter describes as the gales of 'creative destruction' or to paraphrase Marx, 'the slaughtering of capital values'.

REFERENCES

- Albritton R., Itoh M., Westra R. & Zuege G. (2001), eds., *Phases of Capitalist Development*, Palgrave MacMillan, New York.
- Arestis P. & Karakitsos E. (2004), *The Post-Bubble US Economy*, Palgrave, MacMillan, New York.
- Arrighi G. (2005), 'Hegemony Unravelling', *New Left Review*, No.32, March/April.
- Baker D. (2007), 'Midsummer Meltdown: Prospects for the Stock and Housing Market', *Centre for Economic and Policy Research (CEPR)*, August.
- Bank for International Settlements (BIS), (2008), *78th Annual Report*.
- Bibow J. (2006), 'Global Imbalances, Bretton Woods II and Euroland's Role in All This', *Levy Economics Institute of Bard College*, Working Paper No. 486, December, New York.
- Bibow J. & Terzi A. (2007), eds., *Euroland and the World Economy*, Palgrave, MacMillan, New York.
- Blackburn R. (2008), 'The Subprime Crisis', *New Left Review*, No.50, March/April, pp.63-109.

- Boushey H. & Weller C.E. (2008), 'Has Growing Inequality Contributed to Rising Household Economic Distress?', *Review of Political Economy*, Vol. 20, No.1, pp.1-22.
- Boyer R., (2000) 'Is a Finance-Led Growth Regime a Viable Alternative to Fordism? A Preliminary Analysis', *Economy & Society*, Vol.29, No.1, February, pp.111-145.
- Brenner R. (2006), *The Economics of Global Turbulence*, Verso, London.
- Breitel K. (2008), 'The Subprime Debacle', *Monthly Review*, May, pp.27-44.
- Burrell S. (2006), 'Beware the \$600 Billion Elephant', *Sydney Morning Herald* (19/12/06).
- D'Arista J. (2004), 'Dollars, Debt and Dependence: The Case for International Economic Reform', *Journal of Post Keynesian Economics*, Vol.26, No.4, Summer, pp.557-72.
- Davidson P. (2006), 'The Declining Dollar, Global Economic Growth and Macro Stability', *Journal of Post Keynesian Economics*, Vol.28, No.3, Spring, pp.473-88.
- Dooley M.P., Landau D.F. & Garber P. (2003), 'An Essay on the Revived Bretton Woods System', National Bureau of Economic Research (NBER), *Working Paper*, No. 9971, September, Cambridge MA.
- Duncan R. (2003), *The Dollar Crisis: Causes, Consequences, Cures*, John Wiley & Sons (Asia), Singapore.
- Eichengreen B. (2004), 'Global Imbalances and the Lessons of Bretton Woods', National Bureau of Economic Research (NBER), *Working Paper*, No. 10497, Cambridge MA.
- Erturk K.A. (2005), 'Is the Dollar at Risk?', *Levy Economics Institute of Bard College*, Policy Notes No.1, New York.
- Foster J.B. (2008), 'The Financialisation of Capital and the Crisis', *Monthly Review*, April, pp.1-19., New York.
- Frankel J.A. & Wei S. (2007), 'Assessing China's Exchange Rate Regime', Centre for Economic Policy Research, Reserve Bank of New York, *Economic Policy*, pp.575-627.
- Galbraith J.K. (1976), *The New Industrial State*, Penguin, London.
- Glyn A. (2006), *Capitalism Unleashed*, Oxford University Press, Oxford.
- Godley W., Papadimitriou D.B., Hannsgen G. & Zezza G. (2007), 'The US Economy: Is There a Way Out of the Woods?', *The Levy Economics Institute of Bard College*, Strategic Analysis, November, New York.
- Gray H.P. (1990), 'A Model of Depression', *Banca Nazionale Del Lavoro Quarterly Review*, September, pp.269-88.
- _____ (2004), *The Exhaustion of the Dollar*, Palgrave MacMillan, New York.
- Halevi J. & Lucarelli B. (2002), 'Japan's Stagnationist Crisis', *Monthly Review*, Vol.53, No.9, February, New York.
- Harvey D. (2003), *The New Imperialism*, Oxford University Press, New York.
- Iley R.A. & Lewis M. K. (2007), *Untangling the US Deficit*, Elgar, Northampton, UK.

- Izুক্তetta A. & Irvin G. (2007), 'Righting Global Imbalances: Recession, Protection or Reflation?', in Bibow J. & Terzi A. (eds.), *Euroland and the World Economy*, Palgrave, MacMillan, New York.
- Kregel J. (2008), 'Minsky's Cushions of Safety', *Levy Economics Institute of Bard College*, Public Policy Brief, No.93, New York.
- _____ (2007), 'The Natural Instability of Financial Markets', *Levy Economics Institute of Bard College*, Working Paper No.523, New York.
- Krugman P. (2007), 'Will There Be a Dollar Crisis?', Centre for Economic Policy Research, Reserve Bank of New York, *Economic Policy*, July, pp.436-467.
- Li M. & Zhu A. (2005), 'Neoliberalism, Global Imbalances and Stages of Capitalist Development', *Political Economy Research Institute*, Working Paper Series, No.110, August, University of Massachusetts, Amherst, USA.
- Lim M. (2008), 'Old Wine in a New Bottle: Subprime Mortgage Crisis – Causes and Consequences', *Levy Economics Institute of Bard College*, Working Paper No.532, April, New York.
- Lipietz A. (2001), 'The Fortunes and Misfortunes of Post-Fordism', in Albritton R., Itoh M., Westra R. & Zuege G. (eds), *Phases of Capitalist Development*, Palgrave MacMillan, New York.
- Magdoff F. (2005), 'The Explosion of Debt and Speculation', *Monthly Review*, Vol.58, No.6, pp.1-23, New York.
- McKinnon R.I., (2005), ed, *Exchange Rates Under the East Asian Dollar Standard*, MIT Press, Cambridge, Massachusetts.
- _____ (2005), Introduction, in McKinnon R.I., (ed.), *Exchange Rates Under the East Asian Dollar Standard*, MIT Press, Cambridge, Massachusetts.
- _____ (2005), 'The World Dollar Standard & Globalization: New Rules for the Game?', (<http://www.stanford.edu/~mckinnon/>)
- Minsky H.P., (1982), *Inflation, Recession and Economic Policy*, Harvester Press, UK.
- _____ (1992), "The Financial Instability Hypothesis", *Working Paper, No.74*, The Jerome Levy Institute of Bard College, New York.
- Nesvetailova A. (2005), 'United in Debt: Towards a Global Crisis of Debt-Driven Finance?', *Science & Society*, Vol.69, No.3, July, pp.396-419.
- O'Hara P.A. (2003), 'Deep Recession and Financial Instability or a New Long Wave of Economic Growth for US Capitalism? A Regulation School Approach', *Review of Radical Political Economics*, Vol. 35, No.18, pp.18-43.
- Papadimitriou D.B., Chicote E. & Zezza G. (2006), 'Can the Growth in the US Current Account Deficit be Sustained?: The Growing Burden of Servicing Foreign-Owned US Debt', *The Levy Economics Institute of Bard College*, Strategic Analysis, May, New York.

- Papadimitriou D.B., Hannsgen G. & Zezza G. (2007), 'The Effects of a Declining Housing Market on the US Economy', *The Levy Economics Institute of Bard College*, Working paper No. 506, July, New York.
- _____ (2006), 'Can Global Imbalances Continue?', *Levy Economics Institute of Bard College*, Strategic Analysis, November, New York.
- Parenteau R.W. (2004), 'Exploring the Euphoria: Using Post Keynesian Tools to Understand the US Bubble and its Aftermath', in Wray L.R. & Forstater M. (eds), *Contemporary Post Keynesian Analysis*, Elgar, Northampton, UK.
- Pollin R., (2003), *Contours of Descent*, Verso, London.
- Report to Congress of the US-China Economic & Security Review Commission, 2004, Washington DC.
- Roubini N. & Setser B. (2004), 'The US as a Net Debtor: The Sustainability of the US External Imbalances' (Unpublished), (<http://pages.stern.nyu.edu/~nroubini/papers/Roubini-Setser-US-External-Imbalances.pdf>.)
- Schnabl G. (2005), 'China: A Stabilizing or Deflationary Influence in East Asia? The Problem of Conflicted Virtue', in McKinnon R.I., (ed.), *Exchange Rates Under the East Asian Dollar Standard*, MIT Press, Cambridge, Massachusetts.
- Sapir J. (2008), 'Global Finance in Crisis', *Real World Economic Review*, No.46, pp.82-101.
- Summers L.H. (2004), 'The US Current Account Deficit and the Global Economy', Per Jacobsson Lecture, September, (<http://www.perjacobsson-org/2004/100304.pdf>.)
- Taggart-Murphy R. (2005), 'East Asia's Dollars', *New Left Review*, No.40, July/August.
- Wade R. (2007), 'A New Financial Architecture', *New Left Review*, No.46, July/August.
- Whalen C. J. (2007), 'The US Credit Crunch of 2007: A Minsky Moment', *The Levy Economics Institute of Bard College*, Public Policy Brief, No.92, New York.
- Wolfson M.H. (2002), 'Minsky's Theory of Financial Crises in a Global Context', *Journal of Economic Issues*, Vol. 36, No.2, June, pp.393-399.
- Wray L.R. (2007), 'Lessons from the Subprime Meltdown', *Levy Economics Institute of Bard College*, Working Paper No.522, New York.
- Wray L.R. & Forstater M. (2004), eds., *Contemporary Post Keynesian Analysis*, Elgar, Northampton, UK.