Junk Economics and the Manufacturing of a Crisis

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The events of September 2001 appeared to define the 21st century. Wars in Afghanistan, Iraq, and against 'terrorism' more generally, and the unprecedented unilateral projection of US military power world-wide were justified as responses to them. The economic policies followed by the Bush Jr administration and the Fed in the years that followed were celebrated for overcoming the recession they allegedly caused (ERP 2002: 23, 30)[1] and re-positioning the US economy at the centre of world capitalism. Together these developments seemed to inaugurate the New American Century called for by neoconservative intellectuals in the late 1990s. Obituaries of 'globalization' (The Economist 2001, Ferguson 2005) appeared and a whole new genre of writing about the world order – about the US's 'empire' and 'new imperialism' – emerged. Advocates enjoined imperialism on the 'reluctant' US an historic duty (Boot 2003, Ferguson 2004, Maier 2006, Mallaby 2002, Ignatieff 2003 and 2004). For the first time since the First World War, imperialism was cast in a positive light as characteristic of the peaks of human civilisation. The US was a New Rome (Maier 2006, Ferguson 2004) with 'the classical architecture of its capital and the republican structure of its constitution'

[1] ERP refers to Economic Report of the President, an annual publication. All other references will be supplied on request.

(Ferguson 2004: 14). An accompanying set of economic discourses extolled the resilience, stability and productivity of the US economy, which, combined with the innovation of its financial sector, attracted greater torrents of money into the US than even in the heyday of globalization. Critics of the US's new imperialism, meanwhile, recalled how imperium unravelled the Roman republic: the Euphrates and the Tigris were the modern Rubicons (Johnson 2004: 15-17). They also exposed yawning gaps between the rhetoric of freedom and justice and the reality of power and interests (Harvey 2003, Smith 2005). Understandably, advocates picked up from where the 'renewalists of the late 1980s and early 1990s had left off. However, even the critics, though they pointed economic problems – pre-eminently the twin deficits – did not refer to the 'declininst' origins of the idea of US hegemony or imperialism. The brute facticity of the new imperialism must have made it seem irrelevant and the present-mindedness of the scholarship made it unthinkable.

However, the events of another September, a mere 7 years later, brought American hubris up short sharply. Amid a recession that began in 2007 one particularly highly leveraged investment bank, Lehman Brothers, collapsed. The rest of the US-centred international financial system, the mechanism that funnelled critically necessary foreign funds into the US economy and undergirded the dollar's role as world money, teetered on the brink. Contrary to the rhetoric of the past half decade that sought to reassure, encourage and justify these inflows, the US economy turned out to have been exhausted, powered by little more than credit-fuelled consumption and a housing boom, and the US financial system, for its part, to have been based on little more than another, even more destructive, bubble based on rising real estate prices and financial instruments based on mortgage debt. Worse, though they helped finance a military budget that rose, relative to other countries and absolutely, to unprecedented levels, it was clear at least as early as 2005 that the US occupations of Iraq and Afghanistan were faltering. History's most massive bailout appeared to have saved the US financial system, for the moment. But the era of investment banking came to an end: except Goldman Sachs all major investment banks had gone bust, been taken over, or was in state ownership. And the future of the US-dominated world financial system, the main guarantor of the dollar's international role hitherto remained in doubt as new webs of predominantly national regulations emerged. The dollar resumed its decline after a brief and spectacular rally in the fall of 2009 as panicked US international investors flew home to safety, and its status as the world's money came to be questioned.

Meanwhile, with the financial and economic crises centred on the US and robust growth in the emerging economies, the shift in the centre of gravity of the world economy, and with it the world order, away from the US Western Europe and Japan accelerated. As the crisis erupted, the G7 was replaced by the G20 as the relevant body for the multilateral management of the world economy. Having won a presidential election amid the economic chaos that followed, President Obama was faced with turning around an economy which, it was finally admitted, was 'living beyond its means', scaling down the wars in Iraq and Afghanistan and accepting the existence of a 'multi-polar' world. Further attempts at hegemony were unlikely to have credibility.

The events of the two Septembers bookend the final attempt at US hegemony. Its very intensity made its contradictions – the internal contradictions of US security policy and the economic contradiction between imperial ambition and economic debility – acute to the point of rupture. The three sections that follow trace the evolution of the contradiction between intensified power projection and economic debility. Given a US economy reaching previously unplumbed depths, Bush Jr's geopolitical aggression could only be financied by foreign funds flowing in. As they flowed in, given the lack of productive investment opportunities they could only inflate the greatest of all asset bubbles in housing through the greatest of all credit bubbles in related mortgage based securities.

The financial crisis in the Fall of 2008 gave rise to debates about whether the banks or their regulators had erred. But it was never a story of errors. Commercial banks had indeed sought greater deregulation to enter areas previously reserved for investment banks. Having won it, they could, and did, throw their vast depository operations unreservedly into securities activities. The crisis that finally erupted made clear that their formidable completion had overwhelmed investment banking and brought many of them down as well. While only deregulation could have made such competition possible, it had been as much the result of Fed policy as of commercial banks' lobbying. And once it got going all banks were merely its creatures. The real actors were US economic managers – particularly the Fed. The final three sections tell the story of how they recognised that consumption, based on mortgage-backed credit was the only real motor of the economy and bet on it to power US growth by providing the most propitious conditions – in particular low interest rates – for its growth after the 2000-1 recession; how they further inflated the ensuring bubbles by extending credit to ever wider circles of borrowers, including those without acceptable credit ratings – the so-called ‘sub-prime’ borrowers; and finally how the entire structure of mortgage-lending and trading in securities backed by mortgages came unravelled when the Fed was forced to end the regime of low interest rates when the dollar came under unacceptable pressure and long-term interest rates, which had remained low for nearly a decade after the Asian financial crisis, finally turned upward.

The New Bubble: Second time as a Farce?

The rising stock market and its wealth-effect boosted consumption and investment powered the US economy in the late 1990s. Relatively low interest rates were critical to the rising stock market and the resulting growth had also boosted employment. Ironically, this turned out to be, for Fed Chairman Greenspan at least, the fly in the ointment. Concerned about rising wages eventually led him to begin raising interest rates in 1999. So high had the stock market risen that even he took the sharp drop between March and May 2000 as a mere correction and continued to raise rates in that year. By July 2000 ‘the economy entered into a frightening free fall'. Not only did growth, investment and real aggregate wages and salaries fall faster than in any postwar recession, exports went from robust 8.7 per cent growth in 1999 into a 5.4 per cent decline (Brenner 2009: 34). But Greenspan, as ever more concerned about stocks than any real economic indicators, reacted only when markets fell sharply again in the first two days of 2001. Only this decline moved Greenspan to announce a rate cut of 50 basis points, and follow them up with 4 more to May and two further cuts of 25 basis points over the summer. Thus, not only was the economy weakening well before 9/11, the stock market decline went sufficiently low as to frighten Greenspan into this campaign for cutting rates well before 9/11. After those events, three further cuts of 50 basis points and one of 25 basis points followed before the year ended. The rate cuts would continue until they took the Federal Funds Rate went from 6.5% in 2001 to 1% by June 2003.

Plane Crash or Stock Market Crash?

Though both the Fed and the administration had access to the data clearly showing the economy slowing since the middle of 2000, a new myth emerged. 9/11 'and the subsequent precipitous decline in consumer and business confidence late in 2001 were sufficient to tip the Nation into its seventh recession since 1960' (ERP 2002: 36). The still-tentative reflections of the Business Cycle Dating Committee of the NBER to the effect that 'before the attacks, it is possible that the decline in the economy would have been too mild to qualify as a recession. The attacks clearly deepened the contraction and may have been an important factor in turning the episode into a recession' were marshalled as independent confirmation (ERP 2002: 42). However, the NBER's more considered judgement was that recession had begun in March 2001 and possibly even earlier (ERP 2004: 30-31). In any case, consumer confidence bounced back rather smartly even before the last quarter of 2001 ended. In reality, the Bush Jr administration and the Fed simply milked 9/11 as the cause of any and all economic bad news, current and future, and as a justification for the continuous lowering of interest rates. The administration even went so far as to make the economically illiterate suggestion that an expected increase in security spending would reduce GDP growth because ‘more labor and capital will be diverted toward the production of an intermediate product—security—and away from the production of final demand’ (ERP 2002: 56).

Whatever Greenspan’s motives for lowering interest rates, they might have been expected to boost productive investment. However, with the ICT-related investment boom at an end, business investment over the next business cycle remained never really revived. The climate could hardly have been less propitious. Manufacturing profitability plunged by a third of its 1997 peak and that in durable goods manufacturing – which experienced the high tech investment boom and was most exposed to international competition – fell 30 per cent in 2001 and 46 per cent from 1997 (Brenner 2009: 34). Moreover, though the ICT investment boom was so widely associated with the stock market boom, despite the headline-grabbing IPOs of the late 1990s, ‘gross equity issues were more than offset by share repurchases and merger-based stock retirements at other firms, so that debt, not equity, served as the major source of business financing during the investment boom. Business debt rose steadily throughout this period, with net issuance of long-term corporate bonds and short-term commercial paper playing especially important roles’ (ERP 2003: 39). Higher corporate indebtedness reduced profits after payment of interest even more (Brenner 2009: 34). Capacity utilization in the ICT sector plunged from 85.9 per cent in 1999-2000 to 59.7 percent two years later and an analysis of losses of companies listed on the NASDAQ found that they amounted to more than the profits of the stock market boom. Brenner quoted a rueful analyst: “What it means is that, with the benefit of hindsight, the late 1990s never happened.” (Brenner 2009: 35). In these circumstances, the Fed's interest rate cuts could hardly help productive investment. The administration blamed the poor performance of business investment on a 'capital overhang' (ERP 2002: 39-40), but the problem went far deeper. .

> Vastly over-supplied with means of production and heavily weighed down by debt, corporations had little motivation to increase investment and employment, so no interest in borrowing no matter how low the Fed made the cost of credit. On the contrary, they had every incentive to slow down capital accumulation and reduce costs by way of cutbacks on jobs and plant and machinery, while availing themselves of falling interest rates to pay down their debt. And that is what they did. (Brenner 2009: 35)

[And as the economy slowly recovered, it devoted considerable attention initiatives to 'help manage rising health care costs to make health care more affordable and accessible for American workers and families; reduce the burden of junk lawsuits on the economy; ensure a reliable and affordable energy supply; simplify and streamline government regulations; open foreign markets for American goods and services; and allow businesses and families to keep more of their hard-earned money and plan with confidence by making our tax relief permanent' (ERP 2004: 4).]

Unable to boost productive investment, the continuously lowering cost of borrowing now fed the other bubble – in housing. It had begun inflating in the mid-1990 and the importance of sustaining it became clear to US economic managers during the recession. Rising house prices – and the boost they gave to consumption and residential investment – provided the economy what resilience it showed during the recession and replaced rising stock prices in single-handedly powering such recovery as there was.

> Lower mortgage rates and rising real income helped to support rising residential investment in each of the first three quarters; growth for the period averaged 5.6 percent at an annual rate. Investment in single-family structures rose 6.0 percent,

> after declining during most of 2000. Investment spending on multifamily structures rose briskly at a 15.3 percent rate. Investment in residential building improvements increased at a 3.2 percent rate. (ERP 2002: 29)

As it was, with the investment boom over, the administration's main anxiety after 9/11 was consumers' retrenchment 'as they mourned the loss of life and reevaluated the risks inherent in even the most mundane activities, such as shopping at malls and travelling by air' (ERP 2002: 31). If, it turned out, consumption remained resilient during 2001, it was thanks to the housing boom. In its early stages yet, affecting mainly those with relatively higher incomes, its 'wealth effect' was still skewed towards those demographics. Though in most recessions it was the consumption of non-durables – food clothing and footwear – that held up relatively better, compared to that of durables, this time it was the reverse. Furniture and household equipment and motor vehicles, were particularly robust. The administration only expressed surprise (ERP 2002: 27), refraining from the most likely explanation – the particularly severe employment effects of the slowdown and increases in inequality, including unequal access to credit.

That falling stock prices were passing the baton to rising house prices as the new foundation of rising consumption could hardly escape Greenspan's attention (Fleckenstein 2008: 124-5) and certainly by February 2002, he was clear that consumption fuelled by mortgage lending was powering such recovery as there was. And, compared to the previous decade, consumption spending was now more broadly based: while upper income households who had most benefitted from the wealth effect of the stock market boom were restraining their spending during the ongoing bust, '[m]oderate-income households have a much larger proportion of their assets in homes, and the continuing rise in the value of houses has provided greater support for their net worth' (Greenspan 2002).

His testimony to the House Financial Services Committee not only acknowledged the full extent of the decline in business fixed investment, particularly in the ICT sector, it also made patently clear that boosting consumption was now the main priority for him. As far as he was concerned, any revival in business investment could only be the result of the boost provided by sustained growth in consumption. While the inventory cycle would certainly eventually drive business investment up, 'that impetus to the growth of activity will be short-lived unless sustained increases in final demand kick in before the positive effects of the swing from inventory liquidation dissipate. Most recoveries in the post-World War II period received a boost from a rebound in demand for consumer durables and housing from recession-depressed levels in addition to an abatement of inventory liquidation.' (Greenspan 2002). But Greenspan himself pointed to reasons why the increases in final demand that were to kick in had to be unprecedented, quite unlike previous recoveries: '[t]hrough much of last year's slowdown ... spending by the household sector held up well and proved to be a major stabilizing force' mainly because 'low mortgage rates had boosted the building of new homes, sales of existing homes, and extraction of capital gains through sales as well as refinancing.'. So, if consumer spending was to give a boost to capital investment, it had to exceed even this already robust performance (Greenspan 2002). And the forward-looking Greenspan was already looking ahead to, and presumably planning, such a recovery.

Knowing it was unlikely to be spectacular, Greenspan did not neglect the task of lowering expectations of the recovery. If it got under way, Greenspan argued, it would ‘constitute a truly remarkable performance for the American economy in the face of so severe a decline in equity asset values and an unprecedented blow from terrorists to the foundations of our market systems.’ Not only did Greenspan, like the administration, exaggerate the effects of 9/11 so that the none-too-robust US economic indicators he expected would look better by contrast, he argued further that practically any recovery mean that the US economy ‘will have experienced a significantly milder downturn than the long history of business cycles would have led us to expect’. And, he added, it would show that something had changed in ‘our economy in recent decades to provide such resilience’.

Greenspan focused on three changes – the information revolution that put ‘real time information’ at the disposal of businesses which helped them ‘address and resolve economic imbalances far more rapidly than in the past’; deregulation which increased the flexibility of the economy (such that, for instance ‘the collapse of Enron barely registered in the relatively recently developed markets for natural gas and electric power”); and deregulation and innovation in the financial sector which created ‘[n]ew financial products – including derivatives, asset-backed securities, collateralized loan obligations, and collateralized mortgage obligations, among others—[which] have enabled risk to be dispersed more effectively to those willing to, and presumably capable of, bearing it. Shocks to the overall economic system are accordingly less likely to create cascading credit failure. Lenders have the opportunity to be considerably more diversified, and borrowers are far less dependent on specific institutions for funds.' (Greenspan 2002).

Financial innovation was particularly important in keeping consumption resilient in the recession: 'Besides sustaining demand for new construction, mortgage markets have also been a powerful stabilizing force' in consumers behaviour, facilitating home equity extraction not only when they sold homes but also through 'home equity loans, and cash-outs associated with the refinancing of existing mortgages'. Not only were 'roughly half of equity extractions ... allocated to the combination of personal consumption expenditures and outlays on home modernization' the wealth effect of housing was more powerful than that of stocks. While the bursting of the stock market bubble

> has continued to weigh on household spending. ... it is important to recognize that the extraction of equity from homes has been a significant support to consumption during a period when other asset prices were declining sharply. Were it not for this phenomenon, economic activity would have been notably weaker in the wake of the decline in the value of household financial assets. (Greenspan 2002)

Consumption based on increasing credit was the only activity with any prospects for future growth. While '[d]ownward pressure from the equity decline may continue to affect consumption spending into 2002, because a drop in wealth typically has lagged effects for 1 to 2 years. Offsetting some of the decline in equity wealth, however, has been a continued increase in housing wealth. From the start of 2000 to the middle of 2001, housing prices rose at a steady 9 percent annual pace, increasing housing wealth by $1.7 trillion. (ERP 2002: 37). Though the 2002 ERP expected that business investment would resume since there were signs that the 'capital overhang' from the investment boom of the late 1990s was being overcome (ERP 2002: 39), no such revival in business investment was forthcoming.

House prices, which had remained essentially flat through the postwar period, began to rise faster than inflation and rents from the mid-1990s onwards. Initially they were powered by the wealth effect of the rising stock market and the expansion of mortgage lending by the Government Sponsored Enterprises (GSEs) Fannie Mae and Freddie Mac under pressure from Clinton administration since 1999 to lend to low and moderate income borrowers, as well as by the decline in long-term mortgage rates. However, they continued to rise after the stock market bubble burst amid falling stock values and a recession, now powered only by the low cost of credit (Brenner 2009: 37-38). Credit, essentially for consumption, exploded on the back of rising house prices and personal savings rates declined largely driven by Mortgage Equity Withdrawals. No longer able to borrow against their stocks, the well-to-do kept up their consumption through borrowing against their homes. Given that home-ownership was considerably more widespread than stock-ownership, these practices spread further down the socio-economic ladder. This was the main reason why despite the sharp drop after 9/11 consumer sentiment rebounded far more quickly than during the Gulf War (ERP 2002: 42).

The Bush administration's tax-cutting agenda further encouraged these trends. Beginning with the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) in June 2001, the Bush administration expanded opportunities for the financial sector. Though justified in the name of promoting saving, in reality 'expanding contribution limits for Individual Retirement Accounts (IRAs), 401(k) plans, and education savings accounts' (ERP 2002: 36) actually encouraged the creation of leveraged claims on future incomes by those who could borrow to invest in these.

With house prices rising 51 per cent between 2000 and 2005, increasing household wealth by 64 per cent, personal consumption and residential investment grew at annual rates of 2.9 per cent and 6.0 percent respectively, accounting for 98 percent of the increase in GDP between 2001 and 2005 (Brenner 2009: 40). And if this credit-fuelled private profligacy was not enough, with the recession, increases in military spending and tax cuts for the wealthy the federal budget surpluses of the Clinton years were transformed into ever more massive deficits. ERP 2002 estimated that 'About two-thirds of the decline in the projected baseline fiscal position since last year may be traced to the weaker economy and technical revisions. Spending accounts for nearly 20 percent of the decline, and the EGTRRA provisions account for under 15 percent' (ERP 2002: 43-4) and, though promises continued to be made to return to surplus, by 2003, the additional borrowing since2000 amounted to 6.6 per cent of GDP (Brenner 2009: 40).

The Fed's interest rate cuts before 9/11 were justified by the FOMC on the grounds that 'the risks of weaker economic activity outweighed the risks of higher inflation (ERP 2002: 46). However, in a speech before the National Economists Club a little over a year later, Ben Bernanke, provided a rationale for maintaining low interest rates even as the economy strengthened, but most of all, made the Fed's claim to be the main manager of the economy, monetary policy's claim to be the chief policy instrument and the financial markets' claim to be the main stabilising mechanism in the economy. It was the speech which earned him the moniker 'helicopter Ben'. Bernanke announced that with inflation having been definitively vanquished over the previous two decades, the US must now countenance the opposite danger – deflation. While careful to say that the 'resilience and structural stability' of the US economy and the Fed's commitment to avoid both dangers made either very unlikely, it was, he insisted, citing the example of Japan in the 1990s, 'not purely hypothetical'. The Fed must try to prevent deflation by maintaining an inflation buffer, a higher than zero inflation rate, maintain in existence and be ready to back a 'healthy, well capitalized banking system and smoothly functioning capital markets' and 'when inflation is already low and the fundamentals of the economy suddenly deteriorate, the central bank should act more preemptively and more aggressively than usual in cutting rates' (Bernanke 2002). And if, despite all this, deflation were to set in, 'under a fiat money system' it was 'always reversible'.

> By increasing the number of U.S. dollars in circulation, or even by credibly threatening to do so, the U.S. government can also reduce the value of a dollar in terms of goods and services, which is equivalent to raising the prices in dollars of those goods and services. (Bernanke 2002)

Contrary to the idea that the Fed could do nothing once short term interest rates reached zero, Fed could work to bring down longer term rates either through a commitment to keep short term rates at zero for a time, or by 'announcing explicit ceilings for yields on longer-maturity Treasury debt' and enforcing them by 'committing to make unlimited purchases of securities up to two years from maturity at prices consistent with the targeted yields'. It could even buy foreign government debt to inject money into the economy. Government deficits, especially those that were monetized, Bernanke argued, could play a supporting role and would be essentially equivalent to Milton Friedman's famous "helicopter drop" of money' (Bernanke 2002). Essentially Bernanke justified both low interest rates and the expanding federal deficit.

Clearly the Fed was committed to low interest rates and had accepted that boosting consumption through credit and managing the inherently escalating risks of doing so through financial innovation was the only way the economy could grow. And financial innovation was indeed critical to the US economy's pattern of growth coming out of the recession. As Brenner points out, even the unprecedented run of interest rate cuts would not have, by themselves, been able to inflate the housing bubble of the 2000s: the Fed controlled short term interest rates whereas the housing bubble rested on a reduction of international long-term rates with the standard 30-year mortgage was tied. They had dipped in the mid-1990s and would remain low until 2005 when pressure on the dollar forced the Fed to begin raising interest rates again. An effect of the Long Downturn's lowering of investment, the tendency toward low long-term interest rates was exacerbated by the East Asian Crisis which forced so many developing countries with open capital accounts to hold large reserves. The recession of 2000-2002 also contributed: 'the business cycle of the years 2001-2007 witnessed the slowest increase of investment, and of growth more generally, within the advanced economies, including the East Asian NICs and Little Tigers, since 1945'. (Brenner 2009: 36). BRENNER DOES NOT EXPLAIN WHY LONG TERM RATES WENT UP IN 2005. With interest rates low, funds seeking higher returns were channelled by the US-dominated financial system towards ever more lucrative, and ever riskier, investments. Whereas in the late 1990s it has channelled funds into the US stock market, after the stock market bubble burst, with the climate for productive investment becoming unpropitious more or less overnight, funds now flowed into the US housing market via a range of complex securities.

Financial Innovation

Financial activity had been increasing in importance since the end of Bretton Woods in 1971 but the infamous financial innovations that came to light after the collapse of Lehman Brothers were largely the product of the 2000s. They were made possible by the 1999 repeal of the Glass Steagall separation of commercial and investment banking. However, this legislative deregulation only completed the process of executive deregulation which had been progressively allowing commercial banks to engage in practices previously confined to investment banks. However, by itself deregulation, not matter how fervently sought by commercial banks would not have lead to the scale and complexity of the financial innovation the 2000s witnessed were it not for the fact that the economy of the 2000s made it necessary. They were critical components of the main mechanism of growth of the US economy.

The US had suffered the most damaging financial crisis during the Great Depression and the regulation that Congress had imposed on the financial sector, including the famous Glass Steagall Act, the Banking Act of 1933, in the wake of a spate of bank failures and the malpractices they brought to light made the US financial system one of the most regulated in the world. Not only were commercial and investment banking separated by prohibiting the former trading in or underwriting securities while their savers were protected by the Federal Deposit Insurance Corporation (FIDC), but Regulation Q also reduced competition between banks by capping the interest rates depository institutions could offer. It had necessitated the interest equalization tax when capital flowed out of the country in search of higher interest rates in the 1960s.

By this time, with inflation and interest rates rising and becoming more volatile, the regulatory structures that were originally intended, and worked, to stabilize banking were increasingly seen to fetter the sector. With securities, the province of investment banks and non-bank financial institutions, being less regulated, banks began to be by-passed by depositors choosing to invest in Money Market Mutual funds which invested in government bonds and commercial paper and eventually also by growing numbers of borrowers as the expansion of these funds increased demand for commercial paper and more and more business could meet their financing needs by issuing it (ERP 1991: 162-167). Undoubtedly regulation needed to be brought up to date. However, in the increasingly neoliberal climate, the default option was always progressive deregulation. And as deregulation took place amid the Long Downturn which limited possibilities for productive investment, it resulted in an increasingly speculative financial sector whose growth displaced, rather than facilitated, the growth of productive activity. No proposal was made to update the regulatory structure in keeping with the original aims to prevent excessive build-up of risk and shape the financial sector to mobilise savings and provide finance for productive investment.

The Savings and Loans (S&L) crisis of the 1980s was an early result of deregulation. Increased inflation and nominal interest rates in the 1970s hit the S&Ls particularly badly. Not only did they have to compete for borrowers with money market funds, high interest rates meant that they were saddled with mortgage assets, typically 20-30 year mortgages, whose rates were fixed when interest rates were lower and which were worth much less now. Congress responded in the 1980s with deregulation so that they could adapt to the new environment by improvising new products and practices. It did not address the fundamental asset-liability mismatch. Almost half the S&Ls that existed in 1970 were gone by 1989, having merged, gone out of business or been placed under government control. In 1986 the Federal Savings and Loan Insurance Corporation itself became insolvent and total cost of the crisis at that date was somewhere between $ 130-176 billion. In the end, the S&L crisis cost the tax payer, thanks to deposit insurance (ERP 1991: 173-4). The Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA) 'set limits on the activities of inadequately capitalized institutions;... strengthened criminal and civil sanctions for illegal activities involving financial institutions.... [and] raised the minimum capital requirements for federally insured savings institutions' (ERP 1991: 174). It would take another financial crisis two decades later before such restriction would be contemplated for the rest of the banking sector.

Although banks experienced many of the same pressures, banking deregulation was minimal before the late 1980s. In 1980 President Carter signed the Depository Institutions Deregulation and Monetary Control Act which terminated the Regulation Q ceiling on savings account interest rates, effective in 1986 and between this act and the

1999 repeal of Glass Steagall, deregulatory action took place outside Congress. Even here, it remained minimal while Paul Volcker, who opposed banking deregulation, remained Fed Chairman. His chief concession was to lower capital requirements in 1981 and later to approach the Bank of England to agree on international capital requirements to prevent regulatory arbitrage, resulting in the 1988 Basle Accord. Of course, banks had been exploiting limits and loopholes already available. They included securities activities overseas, trading in currencies and, increasingly, in over the counter (OTC) derivatives, which were not, technically, securities, and were not prohibited. Over the 1980s and 1990s, they came to constitute increasing parts of commercial banks' activities even as they continued to profit from deposit insurance and membership of the Fed, which were not open to investment banks. These developments only increased banks' interest in repealing Glass Stegall as they looked forward to combining commercial and investment banking and insurance and exploiting the intersections between them. If investment banking and insurance were opened to them, their sprawling depository operations would enable them to dominate over the traditional investment banks as veritable financial supermarkets.

It was only after Alan Greenspan became Fed Chairman in 1987 that a strong trend toward deregulation set in. After an initial attempt at legislative repeal of Glass-Steagall in 1988 (Hendrickson 2001: 860-863), the Fed, aided now and then by the courts and the Comptroller of Currency, the other two main agencies involved in financial regulation, initiated a series of 'piecemeal decisions' which meant that 'by the time Congress did pass reform legislation, the courts and regulators had already dismantled many of the barriers to commercial and investment banking' (Hendrickson 2001: 862). A series of decisions progressively widened the loophole provided by Section 20 of the Glass-Steagall Act which had provided for limited bank participation in securities activities for clients of other services. The percentage of revenue permitted to be drawn from these activities was progressively increases and the sorts of securities which they could deal in was progressively widened to include commercial paper, municipal bonds, mortgage backed securities and corporate bonds by the late 1980s. Under section 20, the Fed also permitted commercial banks to acquire investment bank subsidiaries which could deal with all forms of securities. In 1987 the Fed authorised banks to derive just 5 per cent of their revenue from such subsidiaries, raising it to 10 percent in 1989 and 25 % in 1996. With other deregulation coming from the courts – particularly allowing banks to sell insurance and accepting that annuities were a banking product, deregulation was advancing rapidly under Greenspan.

As executive deregulation drove an ever wider deregulatory wedge various attempts to repeal Glass Steagall in 1988, 1991 and then every year in the four years preceding 1999, could never produce a stable compromise between the various sectors of the industry, small and large banks, and non-bank institutions (Hendrickson 2001) and it was only 1998 merger of Citicorp and Travelers Group to create Citigroup which forced action on Congress. Citicorp was a commercial bank and Travelers Group dealt in insurance and investment banking and the merged firm spanned commercial and investment banking and insurance. The Fed could have blocked the move but instead supported it. Under Glass-Steagall provisions, the merged Citigroup had between two and five years to divest disqualifying assets but it was clear that they, and the Fed, were banking on the repeal of those provisions and that the merger and its approval by the Fed were intended to force Congress to act, which it did the following year.

Once Glass Steagall was repealed, legislators once again withdrew from the regulatory field. A handful of institutions, with the Fed at their head, were charged with regulation. What ensued might be seen as a form of regulatory capture, a situation in which the regulated regulate the regulators. In reality regulation (or lack thereof) was just an added instrument with which the Fed would drive financial institutions and actors into an insane build-up of credit which was at one and the same time the only motor of growth in the US economy and the only guarantee that the funds necessary to finance the twin deficits would keep flowing in from abroad. Rather than any furtive sort of regulatory capture, what one witnessed during this decade was regulators brazenly advertising and advocating the results of 'light touch' (read 'no') regulation by propagating beliefs in the efficiency, indeed, the wonder of markets and innovation, as well as a raft of beliefs – such as that of the 'global savings glut' and the attractiveness of the US financial markets – which explained anomalies away. The stage was now set for the financialization of the US economy to scale heights not even imagined in the 1980s and 1990s.

The Housing Bubble gets into stride

For all the talk of the shock of 911, the economy actually resumed growth, albeit anaemic, in the fourth quarter of 2001and continued into 2002. The Bush administration put this down to the monetary stimulus of low interest rates and the fiscal stimulus of the tax cuts of 2001 and tax incentives announced the following year through the Job Creation and Worker Assistance Act (JCWAA) (ERP 2003: 28). Consumption based on increasing house prices was the driver, contributing an average of 2.1 percentage points to an average of 3.4 percent of quarterly growth in the first three quarters of 2002. However, as yet the wealth effect of rising house prices, while alleviating the negative wealth effect of the continuing decline in stock prices, pushed down further by the revelations of the Enron and World Com scandals, was not quite up to replacing it.

> In the aggregate ... the appreciation in housing wealth was overshadowed by continued losses in the stock market. Like those for all of the world's major equity exchanges, U.S. stock indexes lost ground in 2002, continuing a general slide that began in the spring of 2000. From the market's high point in the first quarter of 2000 to the fourth quarter of 2002, stockholders lost nearly $7 trillion in equity wealth. These losses continued to weigh heavily on economic growth and job creation in 2002, by reducing the wealth of consumers and raising the cost of equity capital for investing firms. (ERP 2003: 28)

Through 2002, Greenspan continued to express the faith that the burst of investment during the late 1990s had permanently increased productivity and would eventually drive increases in business investment, even though he had to admit recent productivity increases were the result of work intensification and therefore unlikely to be sustained. (Greenspan 2002a and 2002b). It would not be until the following year that he would quietly drop this in favour of a new boosterism – that of the ingenuity and efficiency of financial markets.

Of course, as with the stock market bubble, no one was admitting that rising house prices might constitute a bubble. After the bursting of the stock market bubble, Alan Greenspan could not get away with feigning ignorance about how to tell a if a bubble was developing – it could all too easily seem like garden variety, rather than sophisticated, ignorance and no Fed chairman could afford to come across like that. Instead, he now took to adducing reasons why housing was especially unsuited to bubbles. In testimony before Congress' Joint Economic Committee, Greenspan claimed that

> First, unlike in the stock market, sales in the real estate market incur substantial transactions costs and, when most homes are sold, the seller must physically move out. Doing so often entails significant financial and emotional costs and is an obvious impediment to stimulating a bubble through speculative trading in homes. Thus, while stock market turnover is more than 100 percent annually, the turnover of home ownership is less than 10 percent annually – scarcely tinder for speculative conflagration. Second, arbitrage opportunities are much more limited in housing markets than in securities markets. A home in Portland, Oregon is not a close substitute for a home in Portland, Maine, and the "national" housing market is better understood as a collection of small, local housing markets. Even if a bubble were to develop in a local market, it would not necessarily have implications for the nation as a whole. (Greenspan 2002a)

Greenspan hedged as usual: this did not mean that bubbles were impossible in housing but only that since 'the turnover of homes is so much smaller than that of stocks and because the underlying demand for living space tends to be revised very gradually, the speed and magnitude of price rises and declines often observed in markets for securities are more difficult to create in markets for homes. (Greenspan 2002a). This wisdom was repeated by the CEA (ERP 2003: 44).

Meanwhile, not only did non-residential investment continue to decline, the administration could not find evidence of any significant capital overhang. Moreover, it could now indulge in the luxury of truth about the relationship between business investment and stock prices. In doing so, it turned the rhetoric about productivity indices, investor valuations and stock prices with which Greenspan had stoked the stock market bubble on its head. The strong statistical correlation between stock prices and business investment since 1995 was only that. In reality, not only were there information asymmetries between managers and investors, most business investment of the late 1990s had been financed through debt, not equity. In the new decade, lowered expectations of earnings, higher risk premiums and corporate scandals had all led to declines in stock prices but that need not affect investment which was financed through debt. The only concerns were whether corporate debt markets functioned well, discriminating between higher and lower credit risk firms, whether the relative inflexibility of interest payments relative to dividend payments might cause a liquidity crisis and/or a credit crunch, and whether the recession was accompanied by a credit crunch. Satisfied that the latter was not imminent, the administration presumably aimed to let increases in final demand spur business investment recovery (ERP 2003: 36-9).

In the circumstances, employment remained low in the weak, consumption-driven recovery, with manufacturing employment hardest hit. There was also a rise in long-term unemployment with an increasing proportion of job losers reporting permanent rather than temporary separation in 2002. Nevertheless the administration took satisfaction in continued productivity growth. Unmindful that it was rooted in intensified work, rather than investment , it concluded that '[a]s productivity growth has stayed high since 1995, the productivity improvement has increasingly come to be seen as lasting' (ERP 2003: 49). It also crowed about low inflation though, being the combined result of cheap imports and low wages, not to mention the new measures of CPI instituted in the wake of the Boskin Report, it was hardly anything to boast about. Not all straws the administration grasped could hide poor performance of the economy.

> For the whole of 2003, three years into the business cycle, the levels of private employment, investment, and net exports, as well as nonfinancial corporate profits, all remained significantly *below* their levels of 2000, while even by the end of the year, the S&P500 stock index still languished about 500 points, or one-third, off its boom-time peak. (Brenner 2009: 41)

Despite slow growth, the US current account deficit widened. While it had increased during the 1990s, except for the peak of the stock market bubble and its wealth effects, saving had continued to rise, thanks mainly to deficit reduction. In the 2000s not only did the US trade deficit, the largest component of the current account deficit continue to rise, national savings, both private and public declined steeply. And given that non-residential investment continued to decline, the coming capital flows were financing current consumption private and government (including, that is, the increased military expenditures) and residential investment. (ERP 2003: 60).

The administration admitted that the widening current account deficit amounted to 'the United States ... consuming and investing more than it is producing' (ERP 2003: 60), that 'the net international investment position in the United States ... has moved from an accumulated surplus of slightly less than 10 percent of GDP in the late 1970s to a deficit of almost 20 percent of GDP in 2001' (ERP 2003: 61) and that the debt could not 'increase without limit' (ERP 2003: 61). But it did not see any problem because 'the United States today is far from the point at which servicing its international debt becomes an onerous burden. In fact, until last year, more investment income was generated by U.S. investment in foreign countries than by foreign investments inside the United States, even though the net international investment position of the United States moved into deficit almost two decades ago'. This implied that ' the rates of return on U.S. investment abroad were higher than the returns enjoyed by foreign investors in the United States' and therefore, 'debt service is unlikely to amount to a significant portion of US output in the foreseeable future' (ERP 2003: 61-2). This was simply another way of saying that the rest of the world was lending it money cheaply and was doing so because of the dollar's status as the chief reserve currency. So while the country's current account deficit could be narrowed by higher world growth and the resulting demand for US exports, and by higher US saving (without reducing investment), ultimately what mattered was international demand for US dollar denominated assets. That would remain high not just as long as productivity remained high and inflation low but more generally due to confidence in US economic policies: 'As long as the United States pursues its current market-oriented, pro-growth policies, there is no reason to believe that the current account deficit represents a problem for continued economic growth (ERP 2003: 63).

That the Bush administration committed itself to this credit-fuelled, consumption-led and capital-guzzling form of economic growth, that is to say it stopped hoping, let alone trying, for anything better, was confirmed in two documents published in early 2004 – ERP 2004 which conclusively drew the lessons from the recent recession and the pattern of recovery from it and Ben Bernanke's speech to the Eastern Economic Association meeting in Washington DC extolling the Great Moderation – the ability of the US economy and its managers to reduce volatility of output and inflation.

The most recent recession and recovery were distinctive in that, thanks to the resilience on consumption GDP declined less than usual and thanks a capital overhang, terrorism and corporate scandals holding back business investment, and continued strong productivity growth, the labour market remained much weaker relative to output. (ERP 2004: 31-32). In this context, there were five lessons to be learned. First, 'structural imbalances [such as the capital overhang] can take some time to resolve'. 'Real business spending on equipment and software dropped more than 9 percent during the four quarters of 2001 and posted less than a 2 percent gain during the four quarters of 2002.' There were particularly sharp declines in high-tech, where capital overhang had likely 'exacerbated reduction in normal replacement demand following the Y2K-related investment spurt' (ERP 2004: 35), and low international investment demand affected one of the US economy's larger categories of exports. However, the solution was merely time: the stage for a renewal of capital investment was already set by depreciation, rising demand and falling costs and a marked upturn in business investment could be observed in the second half of 2003.

The second lesson was that uncertainty, like that created by 9/11 and the recent corporate scandals and the tensions surround the war in Iraq and stock markets, business investment and consumption were likely held back by it. The third lesson was that aggressive monetary policy helps reduce the depth of the recession and the fourth, quite predictably, that fiscal stimuli in the form of tax cuts can raise after-tax incomes and thus incentives to work, save and invest. The final lesson justified the low employment performance of the ongoing recovery: strong productivity growth raised standards of living but meant that much faster economic growth was needed to raise employment. ERP 2004 devoted a chapter to explaining, or rather explaining away, the loss of manufacturing jobs. The most recent recession had not only seen a steeper drop in manufacturing output in relation to the drop in GDP, in contrast to previous recessions, its growth rate remained well below GDP growth during it. (ERP 2004: 54). This was not due to international competition but mainly due to shifts to higher value manufacturing and services, shifts that could be witnessed all over the world (ERP 2004: 76).

A month after the publication of the Economic Report Fed Governor Bernanke focused on a recent finding that variability of quarterly real output growth had declined by half since the mid-1980s. Though he acknowledged the role of structural changes in this, Bernanke argued that better monetary policy was largely responsible. In the 1960s and 1970s, when volatility was highest, monetary policy had suffered from 'output optimism' and 'inflation pessimism' – the beliefs, respectively, that monetary policy could affect activity and output and that it did not make its own contribution to inflation. They believed the former because they thought exploiting the trade-off between inflation and unemployment could deliver a permanently low level of unemployment, believed in a very low NAIRU, below 4 per cent, and believed that fiscal and monetary policy could successfully ‘fine-tune’ the economy, eliminating short term fluctuations. And they believed the latter because they did not believe that inflation could be controlled through monetary policy and blamed it on cost-push shocks. It was only when policy-makers, beginning with Paul Volcker, ‘were finally persuaded by the evidence that sustained anti-inflationary monetary policies would actually work’ that the Great Moderation set in. The main message was that the US economy was now unlikely to experience sharp fluctuations in either output or inflation mainly because the Fed had found the formula to keep the economy humming along.

The US economy grew at 2.8 per cent in 2002 and at 4.4 per cent in the first three quarters of 2003, ‘supported by robust gains in consumption, residential investment and defense spending’ (ERP 2004: 84) and the ‘core consumer inflation declined to its lowest level in decades’ (ERP 2004: 83). Consumer spending buoyed by monetary and fiscal stimulus which boosted household income grew at 3 percent in the first two quarters of 2003 and 6.9 per cent in the third. The administration claimed to see signs that business fixed investment was reviving, led by purchases of equipment and software (ERP 2004: 90) and that it would play a greater role in growth in the future (ERP 2004: 84), and consumption a lesser one (ERP 2004: 85). Residential investment saw that largest number of housing starts since 1978 with the interest rate on fixed-rate 30-year mortgages slipping to 5.75%, the lowest level in 32 years though the administration had to admit that residential investment could not keep up such a hectic pace forever.

The US current account deficit reached 5 percent of GDP in 2003. The administration claimed that while adjustments could come from decreased capital inflows, increased demand for exports or increases in national saving and since decrease in investment was to be avoided at all costs, policies should be aimed at facilitating growth in the global economy by promoting free markets and trying to increase national savings (ERP 2004: 264).

The Sub-prime Phase

In the three years to 2003, housing prices rose 23 percent, and wealth in the form of housing by 1/3rd. Along with military expenditures, they were the main engine of the none-too-spectacular growth of these years. However, this process was clearly reaching its limits as rising house prices were making homes less affordable. For the house price rise to continue, the Fed had 'not only to keep short term rates down for as long as possible, but also to somehow enable ever less qualified borrowers-purchasers to buy homes at ever higher prices' (Brenner 2009: 42). And it did. The result was that as prime mortgage originations peaked in 2003, various forms of non-conforming mortgage originations shot up.

> Had non-conforming mortgage lending failed to shoot up at just this moment to partially offset the swoon in conforming lending, the housing bubble would likely have quickly expired, endangering the cyclical upturn, as US households had insufficient funds to keep both housing sales and housing prices rising, not least because, over the length of the business cycle, US real median family income failed to rise for the first time during the postwar epoch, while real wages for production and non-supervisory workers, about 80 per cent of the labor force, remained essentially flat. (Brenner 2009: 43)

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Such lending would have been a problem in any economy but was particularly problematic in the sort of economy that had emerged in the US after the stock market crash. Notwithstanding Bernanke's beguiling attempt to portray the growth slowdown as a 'Great Moderation' brought about by monetary policy giving up its inflation pessimism and output optimism, a chapter in ERP 2005 (ERP 2005: 49-70) revealed how unflattering the contrast between the US economy of the 2000s and that before the 1990s was for the former. If the two most recent recessions – of 1991 and 2000 were shallower than those that had gone before, growth had also moderated. This was despite real interest rates that were among the lowest in postwar history. However, in a context of global overcapacity, these low rates could not power an economic recovery by inducing corporations to invest, only inflate asset price bubbles. Though the recovery from the current recession was exclusively reliant on the expansion of consumer demand, and though the fiscal stimulus of the tax cuts meant that after-tax personal income, which had been only marginally higher than pre-tax personal income in all previous recessions more than doubled in the current one, the recovery was weaker than previous recoveries. Non-residential investment was not only weaker than in expansions before 1990 but also the expansion after that recession. Indeed, non-financial corporations took advantage of low borrowing costs to acquire financial assets, particularly their own stocks, and paying out dividends (Brenner 2009: 63). Even more astonishing given the central role of residential investment in the 2000s recovery, 11 quarters after the trough of the recession, the rise in real residential investment was *lower* than in expansions before 1990 and in that of the

1990s. Finally and most importantly, not only was export growth also the weakest of all recoveries in the 2000s, so was employment growth, with the recovery of the 2000s being even more jobless than that of the 1990s, let alone prior recoveries. If productivity growth alone was higher in the 2000s than in previous recoveries, as even the Fed and the CEA recognised, in the absence of any real recovery in business investment, the result of work intensification. Government spending, the other major contributor to growth, meanwhile, expanded faster than in any previous recovery. Overall, the low interest rate regime merely served to 'mitigate the recession of 2001 by extending its effect throughout the business cycle'(Brenner 2009). That was the real meaning of the so-called 'Great Moderation'.

The expansion of sub-prime mortgages paradoxically made house prices and credit rise even more steeply. On the one hand, it expanded the market to include sections of the population who had long been excluded from the privileges of home ownership and, with low or even no down payments, they were willing and able to pay even higher prices (Brenner 2009: 45). This also inevitably widened the gap between what the borrowers had agreed to pay and their ability to do so from their income if and when the house price rise stopped. The only way they could hope to pay was if the prices went up, enabling them to re-finance or secure capital gain. Home prices had increased 17 percent between the end of 2000 and the middle of 2003. They increased 29 percent from then to the end of 2005.

Reports emerging after the sub-prime crisis broke indicate that the Fed and the Bush administration were determined to keep the housing bubble going and obstructed efforts to take corrective action, even invoking a 19th century law to prevent state legislatures from passing laws against predatory lending (Brenner 2009: 43). Instead, Greenspan extolled the virtues of such lending. In a speech on April 8 2005, for instance, he claimed that 'increased efficiency and scale' and innovation in US consumer finance had 'brought about a multitude of new products such as subprime loans and niche credit programmes for immigrants'. With a long history of making credit more popular, the US consumer finance industry remained competitive despite the wave of consolidation since the 1980s and was now harnessing technological advances such as credit scoring models and 'efficiently extending credit to a broader spectrum of consumers'.

> The widespread adoption of these models has reduced the costs of evaluating the creditworthiness of borrowers, and in competitive markets cost reductions tend to be passed through to borrowers. Where once more-marginal applicants would simply have been denied credit, lenders are now able to quite efficiently judge the risk posed by individual applicants and to price that risk appropriately. These improvements have led to rapid growth in subprime mortgage lending... (Greenspan 2005)

And in another speech the year before, Greenspan praised the role of derivatives in particular. By permitting 'financial risks to be unbundled in ways that have facilitated both their measurement and their management, they had made 'individual financial institutions become less vulnerable to shocks from underlying risk factors' and 'the financial system as a whole ... more resilient'. In particular, they had enabled 'a significant part of the credit risks of an admittedly few large U.S. banks [to be] shifted to other U.S. and foreign banks and to insurance and reinsurance firms here and abroad,... to pension funds, to hedge funds, and to other organizations with diffuse long-term liabilities or no liabilities at all.' In times of increased competition which decreased margins, they helped banks to calibrate their risk portfolios carefully to their risk appetites. This process constituted a veritable 'new paradigm of active credit management' (Greenspan 2004)

It is clear in retrospect that all this ingenious financial innovation that enabled the sub-prime phase of the housing bubble was able to fend off the inevitable – a major financial crisis – for an all-too-short while. Sub-prime mortgage lending only expanded to the extent that it did because it could be securitised according to the 'originate and distribute' model and that could only happen when they were bundled up with conforming mortgages in a way as to persuade rating agencies to give them the high ratings that permitted regulated institutions like pension funds to acquire them. These ratings vastly underrated the risk and, as Brenner points out, there were problems of 'misaligned incentives' and information deficits. But this was not the reason why the mortgage backed securities found a market: after all they were sold over the counter and those buying them were

> highly-paid and presumably well-trained professionals representing giant institutions and managing billions of dollars whose very job it was to assess the quality of assets such as these and who possessed the best information that money could buy. These agents could not but have been aware of the multiple problems potentially lurking in the securities with which they were dealing. (Brenner 2009: 49)

The real reason was the Fed's low interest rate policy created. On the one hand it created opportunities for profiting by borrowing cheap short term and lending at higher rates long term, effectively by buying bonds. On the other hand, intense competition in the deregulated financial sector sent the demand for bonds so high that yields dropped and the search for higher yields drove investors into ever more risky assets. High demand for mortgage backed securities drove four key processes: it kept mortgage originations high and eventually investment banks themselves began to move into the origination business by buying up lending and finance companies (Brenner 2009: 55); it ensured that, as ever more risky borrowers were reached, interest rates, rather than rising, fell; it drove the process of resecuritization of high and low risk securities as banks attempted to calibrate their risk portfolios ever more finely to somehow lower risk and increase returns; and finally, banks sought to insure their securities through complex and 'absurdly underpriced' derivatives like credit default swaps' (Brenner 2009: 55-56). As these processes powered the middle phase of the housing bubble, the sub-prime phase between 2003 and 2005, within the US, they were accompanied by a huge inflow of capital into the United States the current account deficit.

The result was an explosion of debt, driven by the household and government sectors. National debt, which fell as Clinton eliminated government dis-saving, increased again with both the government and households borrowing more and more, even as investment stagnated as corporations attempted to pay back debt. Inflows of capital, which had hitherto gone into equities when the stock market was rising, now sought safer havens in US government debt (ERP 2004: 239).

The US current account deficit had resumed its widening as the economy recovered. Without it the dollar would have declined and interest rates would have been hiked, bringing increasingly frenzied financial merry-go-round to violent halt. Paul

Volcker, for one, pointed to the explosion of debt – personal and government – and the consumption it was fuelling.

> As a nation we are consuming and investing about 6 percent more than we are producing. What holds it all together is a massive and growing flow of capital from abroad, running to more than $2 billion every working day, and growing. ... I don't know of any country that has managed to consume and invest 6 percent more than it produces for long. The United States is absorbing about 80 percent of the net flow of international capital. And at some point, both central banks and private institutions will have their fill of dollars. (Volcker 2005)

This was postponed for two years by an unprecedented surge in East Asian – predominantly Japanese and Chinese lending. (Brenner 2009: 52).

The Bush administration, as we noted in Chapter 2, was averse to 'globalization' rhetoric but was even more dependent than the Clinton administration on capital inflows. While the language of globalization lingered in the first couple of ERPs of the Bush Jr administration, the focus was much more on particulars of the US relationship with the world economy – in terms of capital flows, trade in services and agriculture and so on. And over time, in articulating this relationship, the rhetoric of globalization was replaced by a revival and updating of the discourse of US leadership and hegemony. While Kindleberger thought of it in more diffuse terms, in the 2000s it focused more closely on the financial relationships. The key idea here was the Global Savings Glut.

It was Bernanke's explanation for the US current account deficit. It could not, Bernanke argued, be accounted in terms of factors within the US economy but required a 'global perspective'. From such a perspective, it was clear to him that it was a 'significant increase in the global supply of saving – a global saving glut' – which helps explain both the increase in the US current account deficit and the relatively low level of long-term interest rates in the world today' (Bernanke 2005). Contrary to those who think of the US current account deficit in terms of the US's deficient competitiveness and/or the challenges it faces on the trade front, Bernanke argued that 'specific trade-related factors cannot explain either the magnitude of the U.S. current account imbalance or its recent sharp rise. Rather, the U.S. trade balance is the tail of the dog; for the most part, it has been passively determined by foreign and domestic incomes, asset prices, interest rates, and exchange rates, which are themselves the products of more fundamental driving forces' (Bernanke 2005). Invoking accounting identities between national saving and investment, in which a deficit of saving or an excess of investment would be met with foreign borrowing, and that between the current account deficit and net international borrowing, Bernanke proposed that the US's 'country's current account deficit equals the excess of its investment over its saving' because the latter was very low. And nor was low rate of saving in the US a problem of US origin. It was not due to federal deficits, since the current account deficit expanded both when the federal deficits existed and when they did not. The low national saving rate was itself a reflection of the global saving glut.

Bernanke's explanation of this glut was a curious one. Though he foregrounded the need among rich countries to increase saving due to their ageing populations and low returns to domestic investment, these factors, he said, did not account of the recent increase in global saving. Bernanke pointed that in some rich countries, like Japan, there was an actual decline of saving he refrained from commenting on the similarity with the

US or commenting on why this did not lead to higher saving in both countries. The true reason for the recent global saving glut was 'the metamorphosis of the developing world form a net user to a net supplier of funds to international capital markets' (Bernanke 2005). This Bernanke attributed to the series of financial crises that had experienced in the past decade which, he argued, were due fundamentally to mismanagement of capital inflows. The crisis forced these countries into 'new strategies for managing international capital flows', mainly shifting from being net importers to net exporters, often very large net exporters. Other countries, like China, which did not suffer from financial crises, also built up reserves, as 'war chests ... to be used as a buffer against potential capital outflows', though they were often accumulated in the course of currency interventions designed to reduce the value of the national currency.

What this amounted to was that developing country governments were 'issuing debt to their citizens, thereby mobilizing domestic saving, and then using the proceeds to buy U.S. Treasury securities and other assets. Effectively, governments have acted as financial intermediaries, channeling domestic saving away from local uses and into international capital markets' (Bernanke 2005), either to pay down existing debt or to lend. A second factor which accounted for the global saving glut was the sharp rise in oil prices which created an accumulation of oil revenues among its exporters.

Thus the decline in US national saving was due to 'adjustments in asset prices and exchange rates'. While between 1996 and 2000, US equities became very attractive to international investors, after that, though investment waned, 'desired global saving remained strong' enough to permit no change in the US current account, only in its transmission mechanism: 'low real interest rates rather than high stock prices became a principal cause of lower U.S. saving'. In this situation

> the key asset-price effects of the global saving glut appear to have occurred in the market for residential investment, as low mortgage rates have supported record levels of home construction and strong gains in housing prices. Indeed, increases in home values, together with a stock-market recovery that began in 2003, have recently returned the wealth-to-income ratio of U.S. households to 5.4, not far from its peak value of 6.2 in 1999 and above its long-run (1960-2003) average of 4.8. The expansion of U.S. housing wealth, much of it easily accessible to households through cash-out refinancing and home equity lines of credit, has kept the U.S. national saving rate low--and indeed, together with the significant worsening of the federal budget outlook, helped to drive it lower. As U.S. business investment has recently begun a cyclical recovery while residential investment has remained strong, the domestic saving shortfall has continued to widen, implying a rise in the current account deficit and increasing dependence of the United States on capital inflows. (Bernanke 2005)

There remained the question of why 'the current-account effects of the increase in desired global saving were felt disproportionately in the United States relative to other industrial countries'. And though to the 'attractiveness of the United States as an investment destination during the technology boom of the 1990s' was added the hoary old Kindlebergerian ideas about 'the depth and sophistication of the country's financial markets (which, among other things, have allowed households easy access to housing wealth) have certainly been important' (Bernanke 2005). The special status of the dollar as the leading international reserve currency was also important, of course. Having imputed a certain facticity to these developments, Bernanke went on to note more problematic aspects: the undesirability of developing countries with more scope for growth lending to rich countries; the dearth of productive investment opportunities; the adverse effects of the inflows on US export competitveness; and the possibility of disorderly adjustment if the inflow of foreign funds were disrupted.

The policy implications were that while reducing the federal deficit and increasing the private saving were in themselves good things, they would not, by themselves affect the current account deficit. It was the result of the Global Saving Glut and resolving that required 'developing countries to re-enter international capital markets in their more natural role as borrowers, rather than as lenders' by working to 'improve their investment climates by continuing to increase macroeconomic stability, strengthen property rights, reduce corruption, and remove barriers to the free flow of financial capital'. (Bernanke 2005). However, as we have seen, it was precisely such free flow which lay at the root of the problem and Bernanke's proposal for more of the same was actually designed to prolong the situation. There was another fundamental problem with the Bernanke argument: his accounting identities implies that capital inflows were funding investment, they were actually fuelling consumption and residential housing. All Bernanke could say about this was express the hope that more productive forms of business investment would eventually revive but was unable to point to more than a cyclical upturn.

There are many things wrong with the Bernanke argument. Though he cautions at one point that his arguments rely on 'realized patterns of investment and saving rather than changes in the rates of investment and saving desired from an *ex ante* perspective' (Bernanke 2005), in the rest of the article he simply assumes that realised and desired savings were one and the same. By putting the developing world's need for high reserves down to their previous mismanagement of foreign financial flows, he elided the irrationality of the developing world lending to the rich world while constraining investment and consumption at home. By arguing from accounting identities, he implied that neither the US's trade deficit nor its low personal saving rate was a problem in its own right. And though he claimed not to be passing any sort of moral judgement, his argument put the global savings glut down to the developing world's need to overcome the effects of its own mismanagement of their economies.

Bernanke's global savings glut argument was matched by the administration, which spoke of the current account deficit's accounting double, the 'capital account surplus' (ERP 2006: 125-147). Not only was a larger number of countries, including many developing countries, exporting capital, mainly in the form of holding reserves, which had gone up 160 per cent since 1995, among the smaller number which were importing it, the US accounted for over 70 percent of these inflows, up from 33 percent in 1995. It put these inflows down to low and declining saving, high growth compared to other advanced industrial countries including high productivity growth, and more favourable investment climate, financial market size and efficiency and, finally, the its international role. The size of these inflows was not, contrary to many, necessarily a problem and they could continue indefinitely provided they 'promote strong US investment, productivity and growth' (ERP 2006: 144). Moreover, the US continued to earn net foreign income despite its rising level of net foreign debt making US foreign debt less burdensome. A 'large share' of capital inflows into the US reflected 'foreign private sector investment that believes a higher risk-adjusted return can be earned by investing in the United States than can be earned by investing elsewhere' (ERP 2006: 146). This was a short step from the theory of 'dark matter' which appeared at this time (Hausmann and Sturznegger 2005) arguing that the US international investment position of minus $2.5 trillion must, in reality be a positive $ 600 billion dollars: since the US has been earning a net foreign income of 30 billion over recent years, on the modest assumption that it represented a 5 percent rate of return on assets, net US foreign assets were worth more. This additional worth was the dark matter because 'it corresponds to assets that we know exist, since they generate revenue but cannot be seen (or, better said, cannot be properly measured)'. It was attributable to the knowledge transfer value of US FDI, the liquidity services of the US dollar and the insurance provided by the safety value of US assets.

The end of this frenzy of lending had already begun in the midst of the subprime phase. Paradoxically, the war in Iraq had contributed to oil price increase (Sarkis 2004) and the resulting inflation fears finally brought the Fed to end its long era of low interest rates and in July 2004 announce the first of a series of rate hikes which would take interest rates from their year-long low at 1 percent to 5.25 percent in January 2006. And growth, which had been accelerating though the recovery (growing at 1.1 percent, 1.8 percent, 2.5 percent and 3.6 percent between 2001 and 2004), slowed immediately to 3.1 percent in 2005 though unemployment dropped to 4.9 percent by the end of the year.

The Fed began raising interest rates from July 2004 to moderate inflation and to support the dollar which was once again under pressure so as to maintain the inflow of foreign funds on which the economy had become so dependent. A series of 25 basis point increases would take them to 5.25 per cent in January 2006 and keep them there until July 2007. However, long term interest rates remained low ‘thanks to the weakness of the economic expansion and the enormous purchases of dollars by the governments of East Asia and (increasingly) the oil exporters, not to mention the rising wave of speculation that had been nurtured by the cheap credit policies of the world’s leading central banks'. This made it 'excruciatingly difficult for banks and other financiers to profit in the traditional manner by borrowing short cheap and lending long dear' (Brenner 2009: 58) and they sought higher returns in even riskier assets and leveraged their investments in these even more. As banks bought more and more MBSs with money borrowed on the short term paper market, they extended the scope of the unregulated 'shadow banking system', which had existed since money market funds emerged in the 1970s to securitize the process of credit creation, in two main ways. First, they created the various off-balance-sheet 'conduits' in which they temporarily held the mortgage loans which they securitized. Not only did this inadvertently concentrate risk in the very banks which sought to disperse it through ever more innovative securitization, the banks themselves 'could not resist investing in and holding on to the dubious products' implying that 'they could not but have believed they were quite a good investment' (Brenner 2009: 59). This they did in the second major addition to the 'alphabet soup' of the Shadow Banking System, the 'structured investment vehicles' (SIVs) in which their own holdings of securities were held. Unregulated and unprotected by deposit insurance, these SIVs operated on 'razor thin margins' and were ' profoundly vulnerable, not just to a fall in price of the ever more dubious non-conforming mortgages that underpinned their securities but also to a rise in the cost of short term borrowing-- neither of which eventuality they had any reason to consider at all unlikely' (Brenner 2009: 60). This shadow banking system 'played a central and indispensable role in keeping the bubble in securities backed by non-conforming mortgages expanding, and in that way the bubble in non-conforming mortgages themselves expanding, even as the quality of those mortgages plunged to hitherto unplumbed depths (Brenner 2009: 60).

Descent into Crisis

After the housing market peaked in 2006, ‘the film of housing-driven expansion has been running backward even faster’ (Brenner 2009). As house prices fell, so did residential investment. Credit based on rising house prices also contracted, naturally squeezing consumption which had relied so much on credit in a situation of stagnant incomes. Declining consumption and residential investment slowed growth which, since the post stock market bubble recession, had been powered by little else. Slowing economic growth of course further increased foreclosures and they, in turn affected the value of the portfolios of mortgage backed securities that the financial system as a whole had produced and gorged itself on. Financial crisis could not be far. In 2007 global interest rates were finally, and quite unexpectedly, pushed upward by a combination of continuing credit-based consumption in the US, a surge in Chinese consumption, food and energy price inflation, the requirements of Chinese intervention in currency markets and, finally, an increase in risk appetite moving money away from safe, low yielding USTreasuries (Makin 2007). This led to bankruptcies first among sub-prime mortgage originators and moved up the system's financial food-chain. Financial institutions began to go bankrupt, with Bear Stearns being the first headline grabber. A credit crunch resulted and, finally, on the fall of 2008, the US government ended up rescuing a number of financial institutions except Lehman Brothers.

Annual growth had already peaked in 2004 at a mere 3.6 per cent and then slowed for every successive year. The administration could nevertheless congratulate itself for growth above the historical average and other countries in 2005 (ERP 2006: 3) while in 2006, these claims were further bolstered by talk of the 'headwinds' against which growth had to contend, particularly the lingering cost of Hurricanes Katrina and Rita, inflation, this time of non-energy prices, and consequent higher interest rates. While residential investment fell sharply that year, non-residential business investment – mainly in mining and oil fields, replacement of destroyed facilities in the Gulf of Mexico, trucking (thank to new environmental regulations coming into force and in 'office buildings, multi-merchandise centers, lodging facilities, and recreational structures' as well as in 'petroleum and natural gas structures' – rose quite dramatically (ERP 2007: 30-31), as did exports thanks to a falling dollar and faster growth elsewhere.

Residential investment had contracted 7.3 percent in 2006 and dipped even more sharply by 18.5 percent in 2007 and growth which had been so reliant on it, slowed even further to 2.5 percent (later revised to 2.1 percent). House prices fell even more sharply than the previous year (ERP 2008: 29). For the first time in 16 years, nominal consumer spending rose slower than disposable income and personal saving registered a small increase as the wealth to income ratio stopped rising, unemployment stopped falling and a considerable part of what resilience consumer spending showed arose from higher spending necessitated by high energy costs (ERP 2008: 27). Housing continued to account for increases in household wealth until the middle of 2007 but then the still rising stock market took over. The president now admitted that the economy was ‘undergoing a period of uncertainty’ (ERP 2008: 3), though it was also a ‘period of rebalancing’, a ‘reorientation of the U.S. economy away from housing investment and toward exports and investment in business structures’ (ERP 2008: 25). Business investment rose in 2007, though at a slower pace than the year before, thanks to construction of ‘office buildings, lodging facilities, power facilities and natural gas exploration and wells’ (ERP 2008: 32). There was some concern that the turmoil in financial markets might affect investment rates (ERP 2008: 32-3). And exports grew thanks to strong growth among US trading partners and the low dollar (ERP 2008: 79-98)) with the result that both the trade and current account deficits fell for the first time since 2001.

In 2007 as house prices fell, rising default rates affected not only sub-prime mortgages, by then 20% of mortgage originations, (ERP 2008: 53) which were also subject to the notorious interest rate ‘resets’ as the ‘teaser’ period of low fixed mortgagtes re-set to higher interest rates for the rest of the loan period (ERP 2008: 57-8), but extended beyond. Higher interest rates meant that they affected adjustable rate mortgages. Though their effects remained confined to residential investment, ‘the tightening of credit standards raise[d] the possibility that spending by businesses and consumers could be restrained in the future. Declines in housing wealth may also limit consumer spending' (ERP 2008: 51). Credit markets were certainly roiling. By mid-2007, sub-prime lenders were filing for bankruptcy and money was pouring out of secondary credit markets in a 'flight to quality', sending yields on US Treasury securities down and the market for long-term debt contracted more generally (ERP 2008: 63). The mainline banking sector was also beginning to be affected mainly because the conduits which banks had created to purchase and distribute the mortgage backed securities, which relied on issuing 'short-term debt to finance long-term assets' and therefore had to 'continue to issue new commercial paper to repay maturing commercial paper (a process called *rolling*)', found investors being a lot more picky about the paper they bought and this 'greater investor scrutiny and investor reluctance to purchase commercial paper issued by entities with limited or no backstop liquidity, the volume of outstanding ABCP shrank more than 35 percent, from $1,180 billion in early August to about $750 billlion in late December 2007'. With money withdrawing from these markets into safe havens, the banks that owned the conduits were forced to 'either bring the underlying assets (and their associated liabilities) back onto their balance sheets or reduce the size of their SIVs by selling off the assets', further depressing their value (ERP 2008: 65). These developments also affected other leveraged financial activity such as mergers and acquisitions, which fell sharply and induced stock market volatility.

The Bush administration announced a programme for growth which, in addition to the usual remedy of cutting taxes, also consisted of programmes to help families refinance their homes and avoid foreclosure, promote more trade through bilateral agreements, extending private health care coverage, tackling climate change and improving education (ERP 2008: 3-5). Overall however, the administration reaffirmed its faith in ‘market based reforms’ and ‘fair and open trade and investment policies’ (ERP 2008: 17).

The Federal Reserve, which had kept rates steady at their plateau of 5.25 percent for more than a year began rapidly decreasing them beginning with a 50 basis point reduction in September and following them with two 25 basis point cuts in October and December 2007. It also undertook a number of other measures to ensure liquidity in the financial system, including open market transactions to inject liquidity in financial markets, bringing the Federal Funds rate below its target rate, and reducing the discount rate at which it lent to banks at its discount window by one percent in two reductions in August and September 2007. It also lengthened the terms of its loans and broadened the range of collateral it accepted for loans at its discount window to include home mortgages and related assets. By the end of the year it also resorted to a new device – term fund auctions – to lend money to depository institutions and made dollars available to European and Swiss authorities for their own liquidity provision operations.

However, faith in free markets was not shaken in 2007: ‘Participants in the credit and housing markets are actively addressing challenges that were revealed during the summer of 2007. Markets are generally better suited than government to adapting to changes in the economic environment; markets can respond quickly to new information, while government policy often reacts with a lag or has a delayed impact'. While the financial innovations of the recent past had entailed 'some costs. Over time, markets tend to retain valuable innovations and repair or eliminate flawed innovations' (ERP 2008: 52).

And nor, indeed, was it shaken when, in the Bush administration's last report, the crisis could no longer be glossed over. Looking back over the events of 2008 which included not only a recession that had begun in December 2007 and 'continued throughout 2008', 'the failure or near failure of several major financial institutions in September 2008', 'employment losses average[ing] 82,000-per-month during the first 8 months of 2008, before accelerating to a 420,000-per-month pace during the next three months' (ERP 2009: 20-21), the Bush administration sought refuge in the 'rebalancing' idea:

> The reorientation of the U.S. economy—which had been underway in 2006 and 2007—away from housing investment and consumer spending and toward exports and investment in business structures continued through the first three quarters of 2008. However, the reorientation was neither smooth nor graceful, as falling house prices initiated a cascade of problems beginning with mortgage delinquencies and falling prices of mortgage-backed securities. This eventually threatened the solvency of several major financial institutions and ultimately resulted in several failures and forced mergers along with a major decline in the stock market beginning in late September (ERP 2009: 31).

The 2008 economic stimulus programme and the continuation of the Fed's series of interest rate cuts has 'helped maintain positive real GDP growth in the first half of 2008 [but it] was not sufficient to prevent the steep falloff in employment, production, and aggregate spending that appears to have begun in mid-September' (ERP 2009: 31-2). The recession was serious enough to finally lead to a decline in oil consumption, the falls in the stock market and house prices lead to the ratio of household wealth to income to drop from 6.3 years of disposable income by 1 year of income in the first three quarters of 2008, and was estimated to wipe out another half year in the final quarter, as a result consumer spending fell and saving rose. House prices had peaked in 2006 and residential spending continued its decline. Business fixed investment also fell, however, though business investment in structures for manufacturing and oil and gas exploration and wells grew. However, in the tight credit environment, business investment was likely to decline again in 2009. Exports, which had resumed growth in 2004, thanks to a low dollar, decelerated shaprly in 2008. (all this from chapter 1 of ERP 2009).

The Bush administration's diagnosis of the crisis featured the 'global savings glut' centrally (if rather ungrammatically):

> The roots of the current global financial crisis began in the late 1990s. A rapid increase in saving by developing countries (sometimes called the "global saving glut") resulted in a large influx of capital to the United States and other industrialized countries, driving down the return on safe assets. The relatively low yield on safe assets likely encouraged investors to look for higher yields from riskier assets, whose yields also went down. What turned out to be an underpricing of risk across a number of markets (housing, commercial real estate, and leveraged buyouts, among others) in the United States and abroad, and an uncertainty about how this risk was distributed throughout the global financial system, set the stage for subsequent financial distress. (ERP 2009: 62)

This diagnosis obscured two interrelated things, both of which had to do with vain attempts at US hegemony. First, the so-called 'global savings glut' need never have become a problem for the US economy had it not been for its need for capital inflows which not only financed its twin deficits but preserved the US dollar's international role. Secondly, the debility of the US economy which the financial sector was charged with compensating for was rooted in US refusal to take its place as one of, and still the biggest, producing nation.

In accordance with this view, the departing Bush administration claimed that its ‘vigorous measures’ would ‘increase confidence in the financial sector over the next several months, leading to a rebound in output sometime in 2009’. However, the incoming Obama administration sounded a distinctly different note. Not only was there no mention of the ‘global savings glut’ in its first ERP in 2010, its diagnosis of the crisis traced its roots far deeper into the history and structure of the US economy and its solutions looked forward not only to ‘rescue’ but to ‘rebalance and rebuild’ it (ERP 2010: 25). Looking back over the first year of his administration, Obama reported to Congress that, having taken office at a time when ‘years of irresponsible risk-taking and debt-fueled speculation—unchecked by sound oversight—led to the near-collapse of our financial system,’ the US economy was ‘losing an average of 700,000 jobs each month’, ‘$13 trillion of Americans’ household wealth had evaporated as stocks, pensions, and home values plummeted’, GDP was falling fast and the flow of credit ‘ground to a halt’, and economists across the political spectrum feared that ‘we could sink into a second Great Depression’, his administration had acted fast to resolve immediate problems. (ERP 2010: 4). The measures taken included the bailout of ‘the very banks and institutions whose actions had helped precipitate this turmoil’ and ‘the most sweeping economic recovery package in history: the American Recovery and Resinvestment Act’ which provided ‘

> not only ... tax cuts to small businesses and 95 percent of working families and provided emergency relief to those out of work or without health insurance; it also

> began to lay a new foundation for long-term growth. With investments in health care, education, infrastructure, and clean energy, the Recovery Act has saved or created roughly two million jobs so far, and it has begun the hard work of transforming our economy to thrive in the modern, global era. (ERP 2010: 4)

These measures had avoided the depression and got the economy growing again. However, more needed to be done to replace lost jobs and deal with the problems of long-term unemployment with a jobs bill and to address ‘fundamental weaknesses in the economy: rising health care costs, growing dependence on foreign oil, an education system unable to prepare all of our children for the jobs of the future’. This had to replace the ‘spending bills and tax cuts for the very wealthiest were approved without paying for any of it, leaving behind a mountain of debt’ and an economy where ‘Wall Street gambled without regard for the consequences, Washington looked the other way’. (ERP 2010: 5). And that could only be done by moving ‘beyond an economy that is fueled by budget deficits and consumer demand’ to one which could ‘export more and borrow less from around the world’ and could save more money and take on less debt here at home’. This required ‘policies that will promote innovation’ and ‘power new jobs, new businesses – and perhaps new industries’ such as making the research and experimentation tax credit permanent, ‘harnessing the growth potential of international trade’ and reforming the financial system that had decreased savings and increased debt. (ERP 7-8). These measures were expected to put the economy on the ‘path to full employment’ (ERP 2010: 29).