Review of International Political Economy 8:1 Spring 2001: 6–44

The world economy at the turn of the millennium toward boom or crisis?

Robert Brenner

Center for Social Theory and Comparative History, UCLA

ABSTRACT

This paper addresses the question of whether the long stagnation that gripped the world economy for a quarter century after 1973 has been transcended. To do so, it offers an account of the long downturn, in terms of the fall and failure of recovery of the profitability, especially in the international manufacturing sector, itself rooted in the rise and persistence of over-capacity and over-production on a system-wide scale, originating in the intensification of international competition between 1965 and 1973. In that context, it finds the source of the current boom in the US in a recovery of manufacturing profitability between 1985 and 1995. But, because the US recovery came heavily at the expense of profitability and economic dynamism elsewhere, leaving the underlying problem of international over-capacity and over-production unresolved, it raises the question of the boom's sustainability, especially in light of the fact that the beginnings of manufacturing recovery in Japan and Germany after 1995 led to the East Asian crisis and new profitability problems in the US. Rapid expansion in the US has thus been driven most recently by fast-growing consumption, rooted in the stock market bubble and the associated growth of debt, so its future remains in doubt.

KEYWORDS

World economy; US economy; economic crisis; economic history; long wave; economic stagnation.

INTRODUCTION: 1998–2000 – FROM CRISIS TO BOOM?

Not very long ago, in the autumn of 1998, the world economy seemed in deep trouble. The East Asian crisis was in the process of engulfing not just Russia, Brazil and other Third World countries, but also Japan. It was also threatening to bring down the US economy. In the US, leading stock market indices fell by 20 percent between July and September 1998. By October, credit was drying up and a liquidity crisis seemed to be at

Review of International Political Economy
ISSN 0969-2290 print/ISSN 1466-4526 online
http://www.tandf.co.uk
DOI: 10.1080/09692290010013828

hand. At this point the US Federal Reserve Board intervened. Fed chair Alan Greenspan took the extraordinary step of engineering the bailout of the huge Long Term Credit Management hedge fund, on the grounds that its bankruptcy could have precipitated a worldwide economic collapse. Then, the Fed lowered interest rates on three successive occasions, signalling to the equity markets that it would not allow stock prices to fall any further and that it wanted them to rise, in order to stimulate the US economy.

Since that time, the US economic expansion of the 1990s, which became rapid only from 1996, has continued to accelerate, and now seems to be pulling the rest of the world along with it. The question that thus poses itself is: what is the true state of the world economy today? Will the current boom continue, or will the world economy stumble, returning to stagnation or deeper crisis? Lurking behind that question is a bigger one. Is the world economy today finally at the end of the long downturn that has gripped it since 1973 and on the verge of a new long upturn, like that of the period from the end of the 1940s to the beginning of the 1970s?

The proper way to confront these questions is by grasping the dynamics of the long downturn itself. I will present my understanding of the long downturn's origins, the causes of its perpetuation and the phases of its development.[1] On that basis, I will attempt to characterize the current conjuncture.

1 EXPLAINING THE LONG DOWNTURN: FROM LONG POST-WAR BOOM TO PERSISTENT STAGNATION

As is well understood, the post-war economy has gone through two major phases. During the long boom between the end of the 1940s and the early 1970s, most of the advanced capitalist economies (outside the US and the UK) experienced record-breaking rates of investment, output, productivity and wage growth, along with low unemployment and only brief and mild recessions. But during the long downturn that followed, the growth of investment fell significantly and issued in much-reduced productivity growth and sharply-slowed wage growth (if not absolute decline), along with depression level unemployment (outside the US) and a succession of serious recessions and financial crises.

A secular crisis of profitability

To understand the long downturn, the place to start is with the trajectory of profitability. The single key to the long boom was thus sustained, high rates of profit across the advanced capitalist economies, which made possible and motivated the rapid growth of investment. The onset of the long downturn was precipitated by a sharp fall in profitability,

Table 1 Comparing the post-war boom and the long downturn (average annual rates of change, except for net profit and unemployment rates, which are averages)

	Manufacturing											
	Net Profit Rate		*Output*		*Net Capital Stock*		*Gross Capital Stock*		*Labour Productivity*		*Real Wage*	
	1950–70	*1970–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*
US	24.35	14.5	4.3	1.9	3.8	2.25	–	–	3.0	2.4	2.6	0.5
Germany	23.1	10.9	5.1	0.9	5.7	0.9	6.4	1.7	4.8	1.7	5.7	2.4
Japan	40.4	20.4	14.1	5.0	14.5	5.0	14.7	5.0	10.2	5.1	6.1	2.7
G-7	26.2	15.7	5.5	2.1	–	–	4.8	3.7	3.9	3.1	–	–

G-7 net profit rate extends to 1990; German net capital stock covers 1955–93; Japanese net profit rates and net capital stock cover in manufacturing 1955–1991.

	Private Business													
	Net Profit Rate		*Output*		*Net Capital Stock*		*Gross Capital Stock*		*Labor productivity*		*Real Wage*		*Unemployment Rate*	
	1950–70	*1970–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*	*1950–73*	*1973–93*
US	12.9	9.9	4.2	2.6	3.8	3.0	–	–	2.7	1.1	2.7	0.2	4.2	6.7
Germany	23.2	13.8	4.5	2.2	6.0	2.6	5.1	3.0	4.6	2.2	5.7	1.9	2.3	5.7
Japan	21.6	17.2	9.1	4.1	–	–	9.35	7.1	5.6	3.1	6.3	2.7	1.6	2.1
G7	17.6	13.3	4.5	2.2	–	–	4.5	4.3	3.6	1.3	–	–	3.1	6.2

Note: G-7 net profit rate extends to 1990; German net capital stock covers 1955–93.
Sources: OECD, *National Accounts, 1960–97*, volume II, Detailed Tables; OECD, Flows and Stocks of Fixed Capital, various issues; Armstrong, P., Glyn, A. and Harrison, J. *Capitalism Since 1945*, London 1984/Oxford 1991, data appendix and their Accumulation, Profits, State Spending: Data for Advanced Capitalist Countries 1952–83, Oxford Institute of Economics and Statistics, July 1986 (updated by A. Glyn).

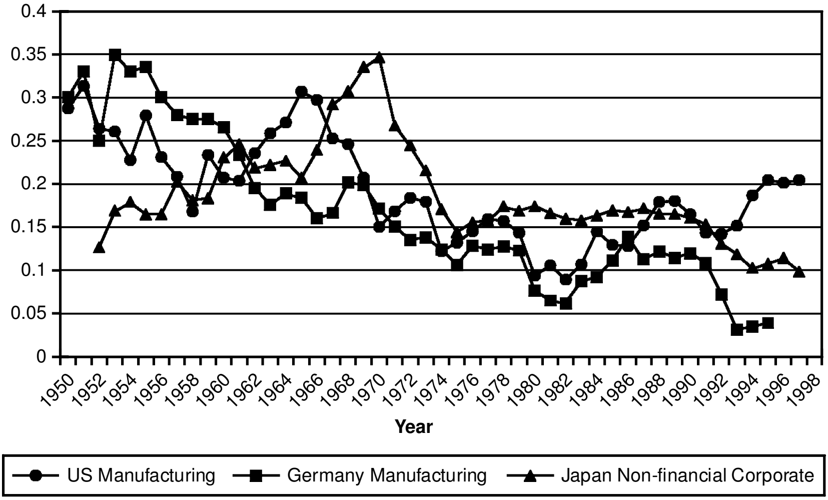

Figure 1 US manufacturing, German manufacturing and Japanese non-financial corporate net profit rates

especially in manufacturing, from the mid-1960s to the early 1970s, which initiated a major slowdown in investment growth. The reason that the downturn so persisted is that the rate of profit for the leading capitalist economies – the US, Germany and Japan – so long failed to recover and the same is true for the G-7 economies taken in aggregate. In a nutshell, the persistence of low profitability has been responsible for the persistence of the low rate of capital accumulation on a world scale that has been the basic source of the difficulties that have marked the long downturn.

In seeking to explain the fall in the rate of profit, my general point of departure is the anarchy of capitalist production. I start, in particular, with the pressure on capitalist enterprises, which derives from their subjection to competition, to cut costs as the condition for their very survival. The resulting tendencies to the accumulation of capital and to innovation are, of course, at the root of capitalism's historically unprecedented capacity for developing the productive forces. But, occurring as they do in an unplanned, competitive manner, these tendencies are also, I would argue, at the source of capitalism's tendencies to periodic crisis and stagnation. This is because individual capitalists have no interest in and are in any case incapable of, taking account of the aggregate effects of their actions . . . specifically the destructive impact of their cost cutting on already-existing capitals and on the ability of those capitals to yield profits.

Intractable problems thus tend to arise because, when innovating firms cut costs and thereby seize increased market share, even while maintaining for themselves the established average rate of profit, they render obsolete the fixed capital that their rivals introduced earlier. Plant and equipment that at the point of its introduction represented the most up-to-date technique but which needed to be operated for an extended period to recover its cost and provide sufficient returns is thus rendered insufficiently profitable in the face of the new, lower prices that have been imposed by the 'premature' introduction of new, even more productive fixed capital. The aggregate outcome is thus redundant investment – making for over-capacity and over-production in given lines – which is expressed in prices that have been rendered too low to allow the non-innovating firms to realize their former rates of return, given their now too high costs of production. Not only are some firms obliged to accept a rate of profit below the established average rate but others, for whom prices have fallen too low to allow them to make a profit even on their variable or circulating capital alone (their new placements of raw materials, labour, intermediate goods), are forced to retire from the industry. With the innovator still making the established, average rate of profit and the others making below it, the rate of profit in the industry falls. Assuming that capitalists *outside* the 'affected' industry fail to garner all and that workers derive some of the benefits from the affected industry's reduced price – i.e. that capitalists do not get to buy all and workers get to buy some of that industry's output, leading to an increase in their real wage – the rate of profit in the economy in aggregate falls.[2]

1.2 Uneven development: from long boom to long downturn

To be more concrete – and to combine, for the sake of brevity, the conceptual and historical aspects of my argument – I would assert that the key to the fall in the rate of profit that set off the long downturn – and also to the long-term failure of profitability to recover right into the 1990s – was the emergence, and persistence, of over-capacity and over-production *on a system-wide scale* focused on the *international manufacturing sector*, beginning in the mid-1960s. Over-capacity and over-production in manufacturing emerged out of a process of uneven development – which was marked by the competitive interaction between firms of the early developing, technologically advanced but relatively inertial, bloc of capital of the US and firms of the later developing, dynamic blocs of capital of Japan, Europe and (later) East Asia. The process of uneven development underlay the spectacular economic dynamism of long boom by enabling the advanced capitalist economies to *sustain* the high rates of profit that they attained in the years immediately following World War II. It issued in the onset of the over-capacity and over-production in manufacturing that was at the root of the profitability crisis. It was responsible for difficulties of the system in transcending over-capacity and over-production that were behind the extended perpetuation of stagnation.

The long upturn

What made for the unprecedented economic expansion of the post-World War II boom was the ability of the firms of the later-developing economies – especially Germany and Japan, but also France, Italy, and others – to exploit the enormous potential advantages of being followers technologically, backward socio-economically, and 'hegemonized' militarily and financially *vis-à-vis* the earlier-developing economies – above all the US, but also the UK – so as to sustain high rates of profit and on that basis, record breaking waves of capital accumulation and growth. The employers in these economies initially achieved the high rates of profit and of international competitiveness that constituted the pre-condition for the post-war long boom by means of the repression or containment of militant worker uprisings in the years immediately following World War II – especially with the aid of tough deflationary stabilization programmes, imposed directly by US occupational authorities or under pressure from the US government (Armstrong *et al.*, 1991). To maintain high profitability and international competitiveness, they took advantage of huge pools of disguisedly unemployed workers in their still relatively backward rural sectors, so as to keep wage growth relatively low compared to productivity growth (Kindleberger, 1967). They also exploited the possibilities of catch-up, adopting cheap but advanced US technology while succeeding, in many cases, in innovating so to forge ahead, especially by means of learning by doing in the process of laying down huge masses of new capital stock (Abramovitz, 1977; Abramovitz, 1994). The leading enterprises of these economies focused on export-oriented manufacturing and, in so doing, were strongly supported by banks that were closely tied to manufacturers, as well as by governments that offered, among other things, a certain degree of protection, subsidies and cheap currencies. As a result, the huge gains in productive effectiveness that they accrued redounded, for the most part, to the benefit of the domestic economies. This was in sharp contrast to basic trends in the relatively inertial, hegemonic US economy, which witnessed an epoch-making move toward internationalization via the overseas expansion of its dynamic multinational corporations and banks, strongly supported by the US state, which undertook massive unproductive military expenditures to keep the world safe from communism (Block, 1977).

The technologically following, later developing and hegemonized economies, especially Japan and Germany, were enabled to grow with unprecedented speed by virtue of their ability to take advantage of the unusually rapid growth of world trade and the world division of labour of the first post-war quarter century and thereby to build large, fast growing domestic manufacturing sectors, sites of the most rapid productivity growth (Kaldor, 1971). The German and Japanese economies prospered in particular by virtue of their ability to serve as hubs for dynamic regional economic blocs in Europe and East Asia respectively – supplying them with increasingly high powered capital goods and offering them huge and rapidly growing markets for their output (although Japan's tolerance for manufactured imports was strictly limited). Still, the extraordinary rates of export growth that drove the economies of both Germany and Japan were ultimately made possible only by the ability of German and Japanese producers to wrest *ever greater shares* of that market from US and UK producers and, in particular to penetrate the enormous US market (Maizels, 1963: 189, 200–201, 220; Morgan, 1980: 48; Brenner, 1998).

The fact remains that, despite entailing relative US decline, the post-war pattern of uneven development was hardly a zero-sum game and was indeed quite indispensable for US economic vitality. Domestically-based US manufacturing exporters thus depended for their own dynamism on their overseas customers' ability to enhance their purchasing power and accumulate reserves, and the latter of course depended on their rivals' ability to produce efficiently and export. On the other hand, they long suffered relatively little damage from intensifying international competition because they had begun with such an enormous technological lead and were long able to dominate the huge US domestic market, even while ceding huge chunks of their overseas markets to producers abroad. Because the US economy was so much larger than those of its rivals, US competitors' appropriation of export markets from US producers and even their limited penetration of the US market itself could have a major positive effect on their domestic economies, while having only a minor negative impact on US producers. By the same token, the ability of US multinationals and banks to expand their overseas operations depended on the renewed economic dynamism of the follower, later-developing, hegemonized economies. The interdependent evolution of the internationalizing, leading economy of the US and of the export-oriented follower economies of Germany and Japan thus turned out to instantiate a highly dynamic, if ultimately highly unstable, symbiosis. It was for this reason that, for much of the first post-war quarter century, the exercise of US hegemony, obviously shaped by US economic and political interests could, to a significant degree, be responsive as well to the needs for economic expansion of the US producers' economic rivals and manifest a relatively high degree of international cooperation.

The onset of over-capacity and over-production: US manufacturing, 1965–73

Nevertheless, uneven development by way of the growth of trade and the world division of labour did not forever remain only favourable in its economic effects. From the end of the 1950s, with the restoration of convertibility and lowering of trade barriers, the growth of commerce began to accelerate even further, with contradictory effects. On the one hand, producers in Western Europe and Japan exploited gains from trade to secure the fastest rates of economic expansion of the post-war epoch during the second half of the 1960s. On the other hand, due precisely to the accelerated growth of trade, new producers without warning began to supply radically increased fractions of the world market. These manufacturers had previously been producing for their home markets bundles of goods that were quite similar to those already being produced by the leading, earlier developing, and hegemonic economies, especially the US (OECD, 1987: 267). It was therefore hardly surprising that the goods that they turned out to export tended to be redundant, rather than complementary, to already-existing products, tending to challenge the incumbents' output for markets and to invite over-capacity and over-production.

Beginning in the mid-1960s, manufacturers based in the later-developing blocs – most especially in Japan, but also in Germany and in other parts of Western Europe – were thus able to combine relatively advanced techniques and relatively low wages to sharply reduce relative costs *vis-à-vis* those in the US. On this basis, they dramatically increased their shares of the world market and imposed on that market their relatively low prices; but, precisely by virtue of their relatively reduced costs, they succeed simultaneously in maintaining their old rates of profit. US producers thus found themselves facing slower growing prices for their output, but caught with inflexible costs as a result of their being stuck with fixed capital embodying suddenly outmoded technology. Those capitals which could no longer make the old or average rate of profit even on their circulating capital alone – i.e. on the labour power, raw materials and intermediate goods that were needed operate their fixed capital (plant and equipment) – had to shed productive capacity and/or reduce capital utilization. Others, in order to hold on to their markets, had little choice but to accept significantly reduced rates of profit on their fixed capital, since they could not raise prices above costs as much as they had previously.

As a consequence of the unplanned-for irruption of lower-priced goods onto the market, US manufacturing producers thus turned out to have over-invested, in the sense that they were unable to realize the old, established rate of return on their placements of fixed capital due to the outrunning of demand by supply in their industries. System-wide over-capacity and over-production, which manifested itself in a declining system-wide rate of return on capital stock in manufacturing, was the result. Between 1965 and 1973, the US manufacturing sector sustained a fall in the rate of profit on its capital stock of over 40 percent. Thus, even though the manufacturing sectors of Japan and of the leading European economies were simultaneously able, at least until 1969–73, to maintain (though not by and large increase) their rates of profit, the manufacturing sectors of the G-7 economies taken in aggregate, a surrogate for international manufacturing as a whole, saw their profit rate fall by 25 percent between 1965 and 1973.

The crisis spreads via the collapse of the world monetary system

The Japanese, German and other European economies did not long remain immune from the aggregate decline in profitability. As an expression of declining manufacturing competitiveness, US trade and current account balances fell precipitously (and German and Japanese trade and current account balances rose correspondingly). Simultaneously, as a result of rising foreign investment and rapidly increasing military expenditures associated with the Vietnam War, US balance of payments deficits skyrocketed. Huge downward pressure was thus exerted on the dollar, and the world monetary system was propelled into crisis. Between 1971 and 1973, the Bretton Woods system of fixed exchange rates was jettisoned and the US dollar sharply devalued, while the mark and yen were correspondingly revalued. Japanese and German manufacturers were thereby burdened with sharply rising relative costs *vis-à-vis* those of their US rivals and obliged to shoulder a much greater share than hitherto of the fall in aggregate profitability that had struck the G-7 manufacturing economies. But, it was evidence of the degree to which over-capacity and over-production had by this point gripped world manufacturing that US producers, though benefiting from the dollar's fall, were unable to come close to restoring their boom time profit rates. Due to the onset of over-capacity and over-production, world manufacturing prices had been unable to grow in line with product wages and the cost of plant and equipment: the result was falling profit shares and output-capital ratios, making for falling profit rates (Brenner, 1998: 116–137).

The fundamental role of intensified international competition leading to over-capacity and over-production in forcing down profit rates, both in the US and in the leading capitalist economies more generally, is evidenced in the fact that the decline in profitability was heavily concentrated in the manufacturing sector, composed mostly of tradables and therefore vulnerable to international competition and only lightly touched the non-manufacturing sector, composed mostly of nontradables and therefore largely immune from international competition . . . *even though costs rose substantially faster in non-manufacturing than in manufacturing in the years when profitability fell.*

Table 2 The growth of costs, prices, and profitability in the US, 1965–73 *(average annual rates of change)*

	NPR	*NPSH*	*RW*	*PW*	*LPY*	*NW*	*ULC*	*PP*	*NY/ NK*	*NY/ NK real*	NKpri
Mfgr	−5.5	−2.7	1.9	4.0	3.3	6.4	3.05	2.3	−3.2	−0.4	5.2
Nmfgr	−3.0	−2.0	2.7	2.8	2.35	7.2	4.7	4.25	−1.1	0.0	5.6
Adjusted for indirect business taxes											
Mfgr.	−6.0	−2.8	1.9	4.2	3.3	6.4	3.05	2.1	−3.4	−0.4	5.2
Nmfgr	−1.7	−0.7	2.7	2.7	2.35	7.2	4.7	4.4	−1.0	0.0	5.6
Not Adjusted for indirect business taxes											

Key: NPR (Net Profit Rate), NPSH (Net Profit Share), RW (Real Wage), (PW) Product Wage, LPY (Labour Productivity), (ULC) Unit Labour Costs, (PP) Product Price, NY/NK (Output-Capital Radio), NY/NK real (Real Output-Capital Ratio) NKpri (Net Capital Stock Price)

It needs to be emphasized, finally, that the private economy *as a whole* saw its profit rate decline as a consequence of the fall in the rate of profit in the manufacturing sector that resulted from the relative repression of price increases in international manufacturing. Had capitalists outside of manufacturing succeeded in garnering *all* of the gains that were derived from the slowed growth of manufacturing prices, they would have secured increases in profits sufficient to match the reductions in

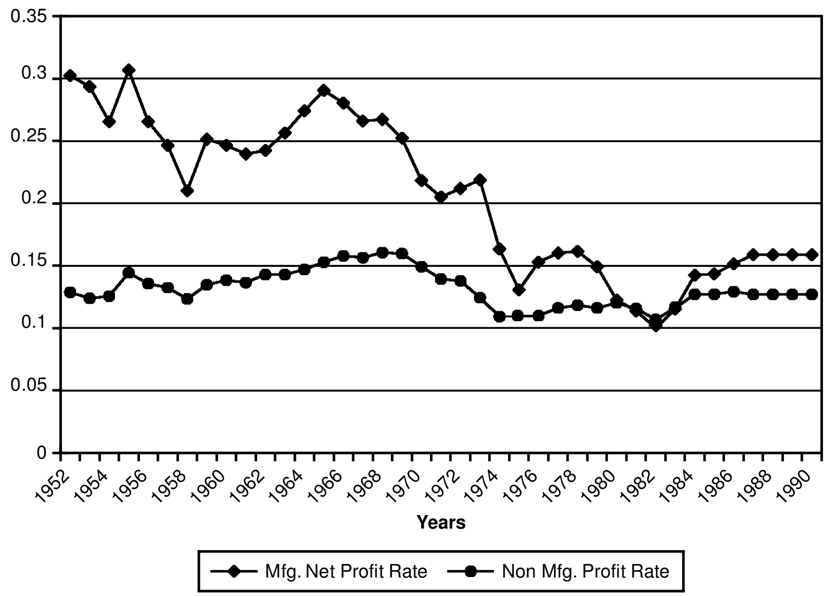

Figure 2 G-7 manufacturing and non-manufacturing net profit rates

profits sustained by firms inside manufacturing; in that case, a rise in the non-manufacturing profit rate would have compensated from the fall in the manufacturing profit rate. No fall in the aggregate profit rate for the private business economy as a whole would then have occurred. But, in view of the composition of manufacturing output, specifically the major place of consumer goods within it, it was a foregone conclusion that workers would share in these gains, increasing their real wages. Moreover, since employers outside of manufacturing did not suffer reductions in their own profit rates as a result of the increased real wages that their workers derived from the slowed growth of output prices in manufacturing, they felt no added pressure to attempt to reduce the growth of nominal wages. The upshot was that, between 1965 and 1973, the rate of profit in the private business economy fell by some 30 percent in the US and by almost a quarter in the G-7 taken in aggregate.

What remains, perhaps, the dominant interpretation of the long downturn – advanced by representatives of the Social Structure of Accumulation School in the US and the French Regulation School, as well as interpreters from a variety of other theoretical political standpoints – understands the initial fall in profitability, and the failure of profitability to recover, in terms of power of and pressure from labour. This is believed to have derived, in the short run, from tightening labour markets that accompanied the long boom during the 1960s and, in the longer run, from the decline in both the risk and the cost of unemployment that resulted from the welfare state commitment to full employment and extension of unemployment insurance (Armstrong, 1991; Glyn *et al.*, 1990; Boddy and Crotty, 1975; Bowles *et al.*, 1985; Boyer, 1988; Sachs, 1979).

There is of course no reason to deny that tightened labour markets, resulting from extended periods of economic expansion tend to strengthen labour and lead to upward pressure on real wages. Still, it is equally true that the very same processes of rapid capital accumulation that tend to entail rising costs also tend set off countertendencies that raise profitability – notably increased capacity utilization and faster productivity growth. Meanwhile, the same rising wages that result from increased demand for labour tend to provoke, in compensation, increased labour supply by inducing stepped-up immigration, the increased export of capital, and labour-saving technical change.

Still, the bottom line point is not that the exercise of power by workers can never bring down profitability – for surely there are times when it does – but that workers' pressure cannot sustain an *extended* period of reduced profitability such as ensued from the later 1960s. The general reason is that, where tight labour markets cause declining profitability, firms will inevitably respond to their reduced rates of return by cutting back investment, bringing about a reduction in aggregate employment and thus of labour's leverage. In the post-war epoch, a further mechanism has ensured that profit squeezes brought on by increased pressure from labour will be self-correcting. Firms suffering reduced profitability due to rising costs find themselves decreasingly competitive because they are less able to invest and thereby improve. If their profitability does not revive, they are obliged, in order survive, to soon reallocate investment to other places or industries. If they do not, they find themselves suffering further reduced profitability or reduced market share because of price-cost pressure from firms beyond the region affected by working-class pressure. Workers who reduce their firm's profit rates, therefore, tend over time to price themselves out of the market.

The very fact that the squeezes on profits that set off the long downturn occurred simultaneously across the advanced capitalist world at almost precisely the same moment, between 1965 and 1973, makes it hard to believe that increases in power and pressure from labour could have been responsible. For it seems *prima facie* unlikely that such shifts in the balance of class forces would occur at just the same time in economies embedded in such different socio-political settings and with such different histories of class relations, as make up the G-7. In fact, the very evidence that speaks most strongly in favour of my argument that the fall in profitability resulted from the intensification of international competition leading to over-capacity and over-production speaks most strongly against the idea that it resulted from an increase in the power of and pressure from labour. Thus, rising costs made themselves felt most strongly in the non-manufacturing sectors of the US economy and the G-7 economies in aggregate and least strongly in these economies' manufacturing sectors, due to the much faster growth of productivity in manufacturing than outside it. Yet, most of the fall in the rate of profit in these economies was concentrated in the manufacturing sector, very little outside of it . . . testimony, again, to the determining role of intensified international competition and the resulting reduced ability to raise prices in manufacturing.[3]

From profitability crisis to long stagnation

Falling profitability throughout the advanced capitalist world issued in the worst recession since the 1930s with the coming of the oil embargo at the end of 1973. Nevertheless, this was only the beginning of what turned out to be a very extended downturn. Profitability failed to recover for the US, German or the Japanese economies, or the G-7 economies taken in aggregate, before sometime in the 1990s, if then, and the result was long-term economic stagnation, as reduced profit rates brought about reduced investment growth, which made for reduced productivity growth and reduced wage growth as well as rising unemployment.

Table 3 The growth of real wages (total economy) (average annual percentage)

	1960–73	*1973–79*	*1979–90*	*1990–98*
US (compensation/hour)	2.8	0.3	0.4	0.3
Japan (compensation/employee)	7.7	2.8	1.6	0.5
Germany (compensation/employee)	5.4	2.5	1.0	0.9

Source: 'Statistical Annex', *European Economy* 64, 1997.

Table 4 The growth of real social expenditures (average annual percent change)

	1960–75	*1975–80*	*1980–85*
US	6.5	2.0	2.7
Germany	4.8	2.0	0.7
Japan	8.5	8.2	3.2
G-7	7.6	4.2	2.6

Source: OECD (1985) *Social Expenditure* 1960–89, Paris, p. 28; *The Future of Social Protection* (1988) Paris: OECD, p. 11.

The question that therefore presents itself is: what accounts for the long persistence of reduced profit rates? This question is all the more pressing, in view of the fact that, right from the start and with immediate and increasing success, employers supported by governments across the world capitalist economy unleashed an ever-deepening attack on workers' organizations and workers' living standards, sharply reducing wage growth and the growth of social spending and thereby very much alleviating upward pressure from the growth of costs on the rate of profit. The continuation of the profitability crisis for more than two decades, in the face of the success of the employers' offensive in so powerfully shifting the balance of class forces in favour of capital and so massively reducing the growth of workers' claims, constitutes, in my opinion, a strong case against the view that an increase in workers' power and pressure was responsible for the long downturn. But it also poses a strong challenge to my own interpretation. It is thus one thing to account for the initial fall in profitability between 1965 and 1973, as I have, in terms of over-production and over-capacity. It is quite another to explain why reduced profitability so long persisted. In particular, why, in line with standard expectations, did not firms suffering from falling profitability in their industries either go out of business or re-allocate means of production into other industries with higher profit rates, so as to alleviate over-capacity and over-production and restore the rate of profit? What counter-tendencies prevented a smoother, quicker adjustment?

First, the great corporations of the US, Germany and Japan that dominated world manufacturing had better prospects for maintaining and improving their profitability by seeking to improve competitiveness in their own industries than by reallocating means of production into other lines. They possessed great amounts of sunk capital that they had already paid for and which they could therefore make further use of 'free of charge'. As a result, *at least for a time*, they could generally make higher rates of profit on their new investments in circulating capital (labour, raw materials, semi-finished goods) in their own industries than they could on new investment in other ones. Though they suffered reduced rates of profit on their total capital, it nonetheless made sense for them to stay put. These corporations maintained, moreover, long-established relations with suppliers and customers that could not easily, or without great cost, be duplicated in other lines. Most important perhaps, they had, over a long period, developed hard-won specialized technical knowledge of production that they could apply only in their own industries. Prospects for profiting from new investment thus seemed better in their own lines, despite the over-capacity and over-production, than in transferring to new ones. During the 1970s and after US, German and Japanese corporations tended to find it more promising to fight than to switch, and did not generally relinquish their positions unless they were forced to. As a result, there was *insufficient exit*.

Second, even despite the reduced profitability in world manufacturing lines, the process of uneven development continued and emergent low-cost producers, based especially in East Asia, found it profitable to enter many of those lines, just as had their predecessors from Japan in analogous circumstances. There was therefore *too much entry*, further exacerbating over-capacity and over-production.

Third, Keynesian policies – which began to be widely implemented in the early-mid 1960s at the first sign of economic difficulties in the advanced capitalist economies and became quasi-universal with the slide into crisis and stagnation in the 1970s – actually contributed to the perpetuation of over-capacity and over-production in manufacturing and thus helped to prevent a decisive recovery of profitability. By increasing demand, deficit spending and easy credit thus allowed many high cost, low profit manufacturers that would otherwise have gone bankrupt to continue in business and maintain positions that might otherwise eventually have been occupied by lower cost, higher profit producers. But, given their low surpluses, such weakened firms could hardly undertake much capital investment or expansion. On the contrary. In response to any given increase in aggregate demand resulting from Keynesian policies, firms were rendered unable, as a consequence of their reduced profit rates, to bring about as great an increase in supply as in the past when profit rates were higher. There was therefore 'less bang for the buck', with the result that the ever-increasing public deficits of the 1970s brought about not so much increases in output as accelerated rises in prices.

Keynesian stimulus policies were thus unquestionably necessary to keep the world economy turning over; but governments' long-term commitment to such policies also prolonged stagnation. During the 1970s, when deficit spending was accommodated by easy credit, it brought about inflation. During the 1980s, when deficit spending was re-introduced to counterbalance the profound tightening of credit imposed by Volcker and Thatcher, it staved off a crash. By thus sustaining a certain stability over close to two decades, in the face of sharply reduced profit rates, the slowed growth of investment and increasing numbers of firms on the edge of bankruptcy deficit spending prevented the imposition of the harsh medicine of depression that had, historically, cleared the way for new upturns by eliminating great masses of high cost, low profit means of production; but, in the process, it reduced – over a long period – the potential dynamism of the system.

2 THE ROOTS OF THE CURRENT CONJUNCTURE

The roots of the current conjuncture are to be found in the working out of three fundamental, closely interrelated long-term trends. All three of these were set off, right from 1965–73, by the fall and failure to recover of system-wide profitability, which was itself rooted in the emergence and persistence of over-capacity and over-production in international manufacturing and all three have continued to work themselves out right up to the present.

The slowed growth of aggregate demand

Reduced profitability provoked, alongside a system-wide reduction in the growth of investment, *ever-tightening world-wide austerity*, designed to cut costs and restore the rate of return. This involved the ever greater repression of the growth of wages and social spending and the stage-by-stage relinquishing of policies of demand stimulus. The resulting *slowdown in the growth of aggregate demand* – investment, consumer and government – tended to intensify the underlying problem of over-capacity and over-production in manufacturing in two respects. It enforced an ever greater turn to increased exports across the world economy, to compensate for the slowed growth of domestic purchases. Second, by slowing the growth of discretionary expenditures and increasing the riskiness of investment, it discouraged the re-allocation of capital out of oversubscribed lines into entirely new lines of production.

Globalization

The slowdown in the growth of aggregate demand that resulted from reduced profitability, the ensuing exacerbation of over-capacity and over-production in manufacturing and historically-elevated real interest rates from the start of the 1980s brought home the growing difficulty, at least for the time being, of making further profitable investments in the real economy. The consequence was a series of interrelated, epoch-making shifts in the operation of the international economy, compared to the way it worked during the long boom, that go under the somewhat misleading term of 'globalization': 1) from a relatively high level of international cooperation to *intensified international conflict*; 2) from the relative repression of finance to *the freedom and ascendancy of finance*; and 3) from an historically unprecedented level of peacetime state regulation of the economy to *deepening economic liberalization*.

1 As competition among firms intensified and economic gains, in the context of stagnating output and demand came increasingly to take place via zero-sum games, governments came increasingly to the aid of nationally-based enterprises by introducing measures aimed at defending domestic markets and securing access to overseas markets – including straightforward protectionism, currency devaluation and what can only be called imperialist intervention to open up hitherto protected domestic economies. Not just firms, then, but the states behind them were set at loggerheads.
2 As it became ever more difficult to make money in the real economy, especially with the turn to tight credit at the end of the 1970s, capitalists undertook an accelerating shift into lending and speculation, their way very much paved by governments across the advanced capitalist world. This failed to produce positive results for the world economy and was, as a rule, able to benefit its progenitors only by way of massive assistance from governments. But it profoundly aggravated the ongoing tendency to increased international instability.
3 As the balance of class forces shifted ever more decisively toward capital, especially as capital accumulation slowed and the economy stagnated, the role of the state was steadily transformed – from providing a safety net to securing labour flexibility, from constricting the operation of finance to financial de-regulation and the suspension of capital controls and from subsidizing demand so as to raise employment to restricting credit and spending so as to raise unemployment.

US economic revival

In response to sharply reduced manufacturing profitability, US business, backed by the US state, launched an ever more powerful counter-offensive to regain manufacturing competitiveness at the expense of both labour and its overseas rivals, while seeking to defend and consolidate its dominance of international financial services. The offensive within manufacturing was marked by a two-decade long repression of wage growth, a secular fall in the value of the dollar, an accelerating shakeout of high cost, low profit means of production and ultimately an important recovery of manufacturing profitability and investment. The offensive within finance was underpinned by the most persistent governmental efforts to insure financial rates of return. The question thus posed at the start of the new millennium is whether the US economy, having enjoyed major recoveries in the rate of return on investment in both manufacturing and finance during the first half of the 1990s, can sustain the boom that it was finally able to achieve during the second half of the 1990s in the face the international crisis that began in East Asia and pull the rest of the world economy along with it.

2.1 The failure of Keynesianism and the impasse of international manufacturing, 1973–79

The Nixon administration's closing of the gold window, which ended dollar convertibility, its adoption of floating exchange rates and its resort to ultra-expansionary monetary policy to stimulate the economy and push down value of the dollar marked the turning point in the pivotal shift away from the relatively high level of international economic cooperation that had characterized the post-war epoch and toward more intense international economic conflict. Even before that time, from the start of the 1960s, the US had assumed an increasingly aggressive stance in order maintain the sanctity of the dollar, demanding its allies and competitors sell gold to support the dollar and hold onto dollars to keep up US gold reserves, even as it insisted on pursuing an expansionary macro-policy, while its payments deficits grew and its competitive position declined. But the allies and rivals of the US were caught in a bind: they disliked the US's exploitation of the Bretton Woods system through its mounting deficits and overvalued exchange rate; yet they had reason to fear even more what turned out to be the alternative – the end of the overvalued dollar, leading to the decline in their own manufacturing competitiveness and the depreciation of their huge dollar holdings (De Cecco, 1976; Hudson, 1972; Eichengreen, 1996; Block, 1977).

By reneging on the US's obligation to convert dollars into gold in 1971, Nixon freed his administration from the necessity to deflate the economy to restore the balance of payments and enabled it to pursue Keynesian expansionary policies aimed at supporting domestic growth, devaluing the dollar in aid of manufacturing competitiveness and depreciating the 'dollar overhang', the dollar reserves held abroad by foreign governments and individuals. During the 1970s, Presidents Ford and Carter continued the policy of incurring growing public deficits so as to increase demand and, by inviting inflation, to reduce real interest rates below zero and to bring down the value of the dollar a great deal further (Parboni, 1981).

In this more favourable context of declining absolute and relative costs, US manufacturers sought to invest their way out of the crisis, actually maintaining investment growth at its level of the 1960s, while reducing dividend payments out of profits and stepping up borrowing to do so. (At the same time, foreign investors sharply increased their direct investment in the US.) By stepping up capital accumulation, US manufacturers were able to maintain the growth of productivity fairly well in the face of two oil crises and this did have a positive effect on their ability to export and, ultimately, their profit rates. Nevertheless, despite a major improvement in their relative cost position in international terms, US manufacturers were unable to increase either their rates of profit or their share of world export markets during the 1970s, because their counterparts overseas were unwilling to politely cede the field to their US rivals.

Assisted by governments, as well as supportive financial institutions, US manufacturers' overseas competitors, notably in Japan and Germany, accepted reduced profit rates in order to retain, or even expand, their shares of world export markets. In Japan, with the collaboration of the state, the banks and other members of their industrial groups (keiretsu), manufacturing firms unleashed an extraordinary process of across-the-board restructuring. There was, therefore, little or no alleviation of international over-capacity and over-production, with the result that by 1978–9 profitability for the G-7 manufacturing economies in aggregate, as well as for the US, German and Japanese manufacturing economies taken separately, had dropped somewhat further, falling below their already-reduced 1973 levels and creating the potential for severe crisis, even depression. (The fact that profitability *outside manufacturing*, which had fallen relatively little between 1965 and 1973, actually increased to some extent despite incurring cost increases at least as great as those in manufacturing, evidences, once again, the roots of the profitability decline in over-capacity and overproduction.)

The upshot, by the end of the 1970s, was a profound impasse for international manufacturing, as well as for the Keynesian subsidies to demand that had been designed to buttress it. The US macro-policy of record federal deficits, extreme monetary ease, and 'benign neglect' with respect to the exchange rate, had brought not only runaway inflation, but also record current account deficits, which led, by 1977–8, to an outright run on the US currency that threatened the dollar's position as international reserve currency. The way was thus opened up for a major change of perspective. Almost unbelievably, it was now the US which was obliged to accept a programme of 'stabilization,' and the result was something of a revolution. The advanced capitalist governments now turned to monetarist tight credit and so-called supply-side measures aimed at cutting costs further. Since the debt-based subsidy to demand that had been keeping the world economy turning over in the face of manufacturing over-capacity and over-production was now suspended, renewed deep recession was unavoidable (Brenner, 1998: 157–80).

2.2 Deepening international stagnation and US economic revival, 1979–95

Rising Real Interest Rates, Declining Growth of Aggregate Demand and the Turn to Finance

The introduction in 1979 by Volcker and Carter of extreme monetarist austerity was designed to raise unemployment so as to lower wage growth, but was also aimed at the existing over-capacity and over-production. The idea was to shake out that great ledge of high-cost, low profit firms that had been sustained by the Keynesian expansion of credit and to restore profitability. Nevertheless, the implementation of what might be termed pure monetarism was incompatible with the maintenance of even a modicum of economic stability. By summer 1982, sharply restricted credit and a rising dollar had detonated the Latin American debt crisis and, by threatening to bring down some of the world's leading banks, had threatened to precipitate a crash starting in the US. Keynesianism had to be brought back with a vengeance, and a monumental programme of military spending and tax reduction was introduced to offset the ravages of monetarist tight credit. But with record high government deficits coming to combine with ongoing tight credit, the inability of policy to overcome the underlying problem of over-capacity and over-production now manifested itself in unprecedentedly elevated real interest rates (Greider, 1987).

Especially in view of the failure of profitability to recover, the result of record high real interest rates was a further deepening of investment stagnation and the rate of growth of capital stock fell everywhere, particularly in manufacturing. Everywhere outside the US, moreover, there was fiscal tightening, a slowdown in the growth of government expenditure. Meanwhile, the slowed growth of output brought rising joblessness and this, combined with a further step-up of the employers' assault on labour, brought an even further slowing of wage growth. The combination of declining investment, declining government expenditure growth and declining growth of real wages could only mean a major slowdown in the growth of aggregate demand . . . which made the already-existing problem of over-capacity and over-production in manufacturing that much more difficult to transcend.

In the context of reduced returns on existing investment resulting from ongoing over-capacity and over-production, the slowed growth of aggregate demand and unprecedentedly high real interest rates, major new placements of plant and equipment seemed, at the start of the 1980s, unlikely to yield decent returns. A huge shift into financial activity ensued, not only in the US but across the advanced capitalist economies, reflected in the growing share of the national product, as well as of investment in plant and equipment going to finance, real estate and insurance. Still, in the context of stagnation of the real productive economy, lending and speculation could not in themselves be all that promising, let alone support a transcendence of stagnation. Where the state came in directly to support financial and speculative profits, returns to financiers and speculators could be spectacularly good – as by way of lending to the US government at ultra-high interest rates, profiting from privatization by the purchase of underpriced public assets, and exploiting the US state-subsidized recovery of share prices in the 1980s, set off by huge tax breaks to the corporations. But, where lending activity in this period sought to be self-sustaining, it almost always took on a speculative and usually disastrous form. The great wave of lending to the third world and to oil patch producers, the turn by savings and loans and commercial banks to loans for commercial real estate, and the epoch-making movement toward debt-financed mergers and acquisitions all ended in serious crises . . . as well as ignominious, though lucrative, government bail outs (Litan, 1991; White, 1992; Blair, 1993; Long and Ravenscraft, 1993).

By the end of the 1980s, profit rates, though rising well above their depths of the 1979–82 recession, had still failed to return to their levels of 1973 (which were themselves, of course, far below their levels of the long boom) in either the US, Germany, Japan or G-7 economies taken in aggregate. One witnessed, in the meantime, especially as a result of the huge wave of debt–financed speculation throughout the decade, the huge growth of corporate indebtedness and much worsened financial fragility of the banks, leading to a wave of bank failures unprecedented since the 1930s (White, 1992; Bernanke and Campbell, 1988; Bernanke and Lown, 1991). The recession of the early 1990s, starting in the US, thus turned out to be much more serious and long lasting than expected.

In the wake of the recession of 1990–1, the international economy faced a double bind. A new round of major US deficits appeared to be required to catalyse a new cyclical upturn domestically and internationally. Increasing US subsidies to demand had, after all, helped to pull the world economy out of every recession since 1970. But, given the enormous build-up of debt during the 1980s, a new spate of borrowing threatened to precipitate inflation and a devastating credit crunch long before it generated a new cyclical upturn. In 1993, led in financial matters by the new economic czar Robert Rubin, former CEO at Goldman Sachs, the Clinton administration shifted decisively toward balancing the budget.

The US's move to fiscal austerity was of fundamental significance because it eliminated what had hitherto constituted the most important counter-tendency to the contractionary trend unleashed with the turn to monetarism at the end of the 1970s – i.e. the experiment by Reagan and Bush in military Keynesianism for the rich. Through most of the 1980s, the advanced capitalist states outside the US had been progressively restricting wage growth and slowing the increase of government spending in the interest of reducing costs and raising profitability. With the US, too, turning to budget balancing, a significant reduction in the growth of aggregate demand for the world economy ensued, and the main ballast of the international system was eliminated. Squeezed by the declining growth of domestic purchasing power, producers everywhere were obliged to sharply step up their orientation to exports, which made for a further intensification of international competition, paving the way for a certain exacerbation of international over-capacity and over-production in manufacturing and creating the background conditions for the world financial crisis that began in East Asia in 1997. For the G-7 economies taken as a whole (or the OECD economies taken together), economic performance during the 1990s, in terms of all of the major economic indicators, was even worse than that of the 1980s, which was itself even worse than that of the 1970s, not to mention the 1960s. In this context, the US economy, practically alone, was ultimately able to prosper and it actually began to boom only from 1996.

The revitalization of the US economy in the context of deepening world economic downturn

As stagnation continued through the 1980s and into the 1990s, a certain reversal of the process of uneven development that had hitherto shaped the evolution of the world economy began to take place. This was driven by the revival of US manufacturing, which brought about at least a partial changing of positions between the US, on the one hand, and Germany and Japan, on the other . . . and offered at least the hope, in the longer run of the transcendence of the long downturn for the world economy.

The deep cyclical downturn of 1979–82 detonated the process of manufacturing rationalization and restructuring. Massive means of production

Table 5 Exports accelerate as output stagnates (average annual percent change)

	1960–73	*73–79*	*79–90*	*90–97*
OECD Real Exports (goods)	9.1	5.7	4.9	6.7
OECD Real GDP	4.9	2.8	2.6	2.4
Ratio of Exports to Output	1.85	2.0	1.9	2.8

Source: OECD *Economic Outlook*. 64: A4, A43, Tables 1 and 39.

and labour were eliminated by means of an explosion of bankruptcies and the large-scale shedding of suddenly unprofitable plant and equipment. The crisis of manufacturing was rendered deeper by record high real interest rates and the huge rise in the dollar that these entailed. One immediate result of the shakeout was a certain increase in productivity growth. Another, however, was unsustainable US current account deficits, reflecting the sharply reduced competitiveness that was entailed by the runaway dollar. US manufacturing firms suffering from an unprecedented loss of markets undertook a huge lobbying campaign to bring down the currency, and the result was an abrupt and epoch-making reversal of policy (Henning, 1994: 271–284).

The Plaza Accord of September 1985, in which Japan, Germany and the US agreed to coordinate policies to bring down the overvalued dollar, marked a watershed. It opened the way to 10 years of more or less continuous and major devaluation of the dollar versus the yen and mark – amounting to 40 to 60 percent – which was accompanied by a decade-long freeze on real wage growth period. The outcome of the combination of dollar devaluation, wage repression, and industrial shakeout – and the increased manufacturing investment that finally ensued – was a resumption of a fundamental shift in the modus operandi of US manufacturing toward a central role for exports. That shift had gotten under way when the dollar's value fell sharply between 1971 and 1978

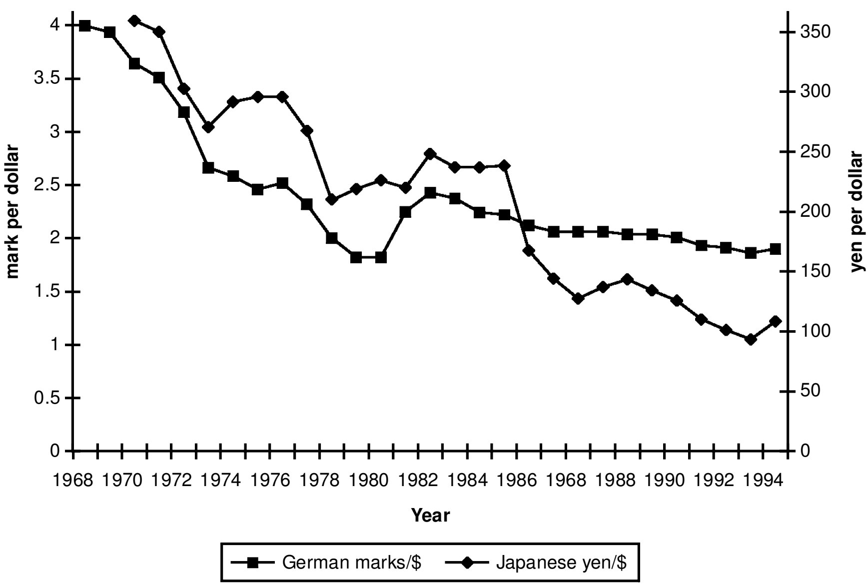

Figure 3 Exchange rate of the dollar *vis à vis* the mark and the yen, 1968–1996

but had been temporarily interrupted by the imposition of high interest rates and accompanying rise of the currency between 1979 and 1985. Between 1985 and 1997, US exports grew more than 40 percent faster than they had between 1950 and 1970 and, little by little, they began to drive the manufacturing sector forward and thereby the whole economy.[4]

The path was very different outside manufacturing. There, one witnessed the vast multiplication of low-productivity service jobs, as average annual productivity growth outside manufacturing for the two decades after 1975 fell to its lowest levels by far during the twentieth century. This trend appears to have been driven, to a large extent, by the stagnation, or even reduction, of real wages, which encouraged the substitution of labour for capital. Between 1979 and 1995, real wages for the bottom 60 percent of the labour force fell, on average, by 10 percent (Mishel *et al.*, 1999). It was, indeed, only the repression of wages that made possible the maintenance of the profit rate outside of manufacturing (Brenner, 1998: 204–207).

The trends toward US manufacturing revitalization and the low wage economy outside it, as well as to an ever greater focus on finance, were ratified and deepened with the advent of the Clinton and Rubin in 1993. Especially in the absence of the usual macroeconomic stimulus, which resulted from the administration's turn to budget balancing, the US economy was able to emerge from the recession of the early 1990s only very slowly, sustaining the so-called 'jobless recovery'. But the slow increase of GDP, accompanied by slowing inflation and, above all, zero wage growth, fit very well the needs of a transformed US economy, marked by a huge service sector with very low productivity growth, an increasingly central inflation-sensitive financial sector and a manufacturing sector that was consistently exposed to tough international competition.

Outside of manufacturing, although productivity growth continued at record-low levels, a zero real wage growth for the 10 years between 1985 and 1995, allowed for a slow but steady rise in profitability (the profit rate had, in any case, fallen relatively little in non-manufacturing). But the decisive changes took place in manufacturing. As it had from 1985, the manufacturing sector continued to reduce its relative costs in international terms and, until just before mid-decade, it did so, as before, without the benefit of much investment growth, relying instead on the ongoing shakeout of low profit, high cost means of production, the large-scale devaluation of the dollar *vis-à-vis* the yen and the mark, and, of course, the continuing repression of wage growth. The outcome was of seminal importance.

By 1995, manufacturing profitability, while still far from full recovery, had nonetheless risen, for the first time since the start of the long downturn, decisively above its level of 1973, at which point it had fallen by

40 percent from its 1965 peak (see Fig. 1. The profit rate for the business economy as a whole was therefore finally able to closely approach, if not quite reach, its boom-time peaks, with enormous consequences for the economy as a whole. Thus, from 1993–4, investment growth took off, and blossomed into a full-fledged boom, which has entailed not just high rates of capital accumulation, but the spectacular increase of expenditures on computers and software, at about 20 percent per year. By 1999, computers and software were taking more than 35 percent of total private non-residential investment, up from 27 percent in 1990 and under 20 percent in 1980 (US Council of Economic Advisors, 2000: 326, Table B-16). From about the same time that investment growth accelerated and almost certainly as a consequence, manufacturing labour productivity growth also accelerated: from 1994 to the present it has been growing as rapidly as in any other period of comparable length during the post-war epoch and some 50 percent faster than it grew on average during the post-war boom, from 1950 to 1973. During the second half of the decade, the manufacturing productivity growth binge seems to have been heavily responsible for what appears to be a notable improvement in productivity growth for the economy as a whole.[5]

Finally, by mid-decade, the stock market boom was giving the now accelerating cyclical upturn an extra fillip by way of the wealth effect and the economy as a whole was poised to take on the sort of dynamism it failed to display since the early 1970s.

From US revival to German and Japanese crises

The US economic revival, which had its origins in the mid-1980s and slowly gathered force during the first half of the 1990s, found its reflection internationally in deep recession, growing instability and extended economic stagnation. Especially in the context of the heavily zero-sum struggle for international export markets that ensued in the wake of ever tightening worldwide economic austerity, the further improvement in US international competitiveness imposed excruciating pressures on manufacturing exporters throughout much of the rest of the world.

The Japanese and German economies thus experienced deepening difficulties from the time of the Plaza Accord and especially after 1990. Even before 1985, high US interest rates had weakened the Japanese and German cyclical recoveries from the recession of the early 1980s by attracting funds away from domestic investment into US assets, especially Treasury bonds. During the decade after 1985, major increases in Japanese and German real wages relative to US wages and enormous increases in the value of the yen and the mark relative to the dollar made for incipient crisis for both the Japanese and German manufacturing.

Both economies were thus plagued, throughout the post-war epoch by the same Achilles Heel, the tendency for their currencies to rise as an expression of their dependence on exports. In Germany, export dynamism was sustained by restrictive fiscal and monetary policy aimed at slowing the growth of domestic demand and keeping down the growth of prices. But the unavoidable outcome was relatively high interest rates and rising trade balances that tended to produce an ever-rising mark. In Japan, export dynamism was sustained by manufacturers commitment to purchasing their inputs from the other members of their industrial groups, as well as a certain amount of implicit protectionism, along with the holding down of household consumption. The resulting repression of import growth made for chronically growing trade surpluses and a rising yen. Especially as the growth of the US market slowed down, the inability of either economy to break from their established patterns of growth led them inexorably into crisis.

By 1986, Japan was on the edge of serious recession due to the sudden collapse of exports, resulting from the Plaza Accord and the exploding yen. The Japanese government sought to respond by precipitating the financial 'bubble' of the late 1980s. It sharply reduced interest rates and promoted the massive step up in private borrowing in order to artificially raise the value of Japanese manufacturers' assets in land and equities, with the goal of stimulating sufficient investment not only to restore export competitiveness but also to begin to re-orient the economy toward the home market. A huge expansion of the capital stock did materialize but it was insufficient to compensate through productivity increase the increase in costs brought by the rising yen. Meanwhile, Japanese banks became exceedingly vulnerable, due to massive lending that had failed to revive their debtors' profitability or prospects.

The German economy witnessed a somewhat analogous pattern of export impasse, followed by temporary government stimulus. Through most of the 1980s, the government sought, as usual, to stimulate growth through dynamizing exports by keeping down domestic costs through tight credit and fiscal stringency. But, because the resulting domestic deflation brought an implacably rising currency, exports could not really take off, and the economy stagnated. Toward the end of the 1980s, the economy began to benefit from the macroeconomic loosening that took place across the advanced capitalist economies in the wake of the stock market crash of 1987. Then, in response to unification, the German government unleashed a massive programme of subsidies aimed at reconstructing the East German economy. The ensuing transfer of funds from West to East Germany provided a major shot in the arm to West German firms, pumping up the call for their goods. Nevertheless, the record-breaking government deficits that financed the expansion could not but issue in a major flare-up in inflation, so that the days of the German upturn were numbered.

In the end, both the Japanese and German government were obliged to sharply raise interest rates to gain control of their respective runaway booms. But, in so doing, they precipitated major cyclical downturns, especially by bringing about still another extended period of the revaluation of their respective currencies. The situation was made that much worse when the US refused to assume its usual role of providing the macroeconomic stimulus required to bail out the world economy from recession. German and Japanese export growth, already reduced after 1985, fell sharply from 1991 causing the collapse of manufacturing profitability and the onset of the most serious recessions of the post-war epoch in both places, which extended through mid-decade (see figs 3 and 4).[6]

3 FROM INTERNATIONAL CRISIS TO WORLD RECOVERY, 1995–2000?

By the spring of 1995, the yen had risen to 80 to the dollar and the Japanese economy appeared in deep trouble. The G-3 powers agreed to coordinated action to push the dollar up. The yen did fall more or less immediately and so also did the mark and in 1995–6, the Japanese and German economies emerged strongly from their recessions. But the process did not end there.

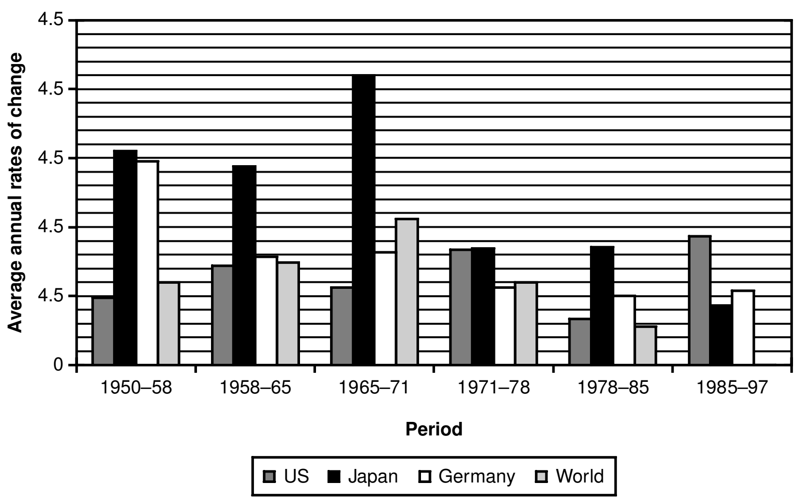

Figure 4 Growth of real exports of goods and services, 1950–97

The fall of the dollar from 1985 had detonated a slowly-developing chain reaction. In its wake and within the context of a world economy plagued by over-capacity and over-production, one economy after another economy would see its manufacturing sector brought down by rising exchange rates. The Japanese and German economies had, of course, been struck first, when the dollar fell. But when 'the reverse Plaza Accord' of 1995 set off the devaluation of the yen, the other East Asian economies, with their own currencies tied to the dollar, could not but be hard-hit. The ensuing crisis would, moreover, soon boomerang back against Japan and ultimately strike hard at the US as well.

East Asia had been the only region of the world economy to enjoy truly dynamic expansion during the decade 1985–95, helped by a whole series of developments. Japanese manufacturers were, in this period, attempting to respond to their competitiveness and profitability problems by way of a large-scale reorientation to East Asia and they made enormous direct investments in the region, while stepping up their exports there of capital and intermediate goods, so as to pave the way for increased penetration of both the US market and the fast-growing Asian 'domestic' market. The economies of South East Asia had, for their part, from the end of the 1980s deregulated their financial markets to allow ease of capital outflow as well as capital inflow and had affirmed the peg of their currencies to the dollar to make for exchange rate stability. The goal of course was to attract bank loans and portfolio capital to the region and massive short-term flows did materialize, very much amplified by the huge growth in world liquidity of these years. The latter was engendered at the start of the 1990s by the US Federal Reserve's deep reduction of real short-term interest rates to cope with recession and financial fragility; it was maintained by the Japanese government's attempts to reflate the economy, after the bursting of the bubble. The attractiveness of investment in the region was made all the greater by the decade-long decline in the value of the dollar and thus of most of the region's currencies, *vis-à-vis* the yen. A spectacular boom ensued throughout the region, fuelled to the point of overheating by speculative inflows which exacerbated the already existing regional and international over-capacity in manufacturing and which, in its later stages, precipitated stock market, land and construction bubbles (Bello, 1998; Bevacqua, 1998; Bernard, 1999; Eichengreen, 1996: 186–91).

But when the yen fell precipitously beginning in the second part of 1995, hard on the heels of the devaluation of the Chinese currency in 1994, the super-fast growth that had come to be taken for granted throughout the region was put in jeopardy. It is, of course, a good question what would have happened had the East Asian economies resisted the lure of cheap, short-term credit and gone off the dollar peg. But, in the interest of what appeared to be a never-ending flow of cheap short-term loans, they did not and the international financial crisis of 1997 was a foregone conclusion.

The general response throughout most of East and South East Asia to intensified competition and weakening demand for their goods was to pour even more money into new plant and equipment. This appears paradoxical but in view of the impossibility of a profitable reorientation to the home market in the short term, manufacturers in the region had little choice but to try to improve their export competitiveness through greater investment, even at the risk of exacerbating over-capacity. Virtually all of these economies suffered sharp reductions in their export growth, current account balances and profit rates, under the impact of intensified Japanese, as well as Chinese competition, not only in other markets but in Japan itself, as the growth of overseas sales in the region as a whole fell from 20 percent in 1995 to 4–5 percent in 1996–7. As it became obvious that growth prospects had been significantly reduced and as corporate financial problems began to manifest themselves – even though local construction and stock market booms temporarily continued, driven by currencies that were rising with the dollar – the influx of outside funds slowed, leading to speculative attacks on local currencies, which forced very major, competitive devaluations across the region (Brenner, 1998: 258–60).

In this situation, Western and Japanese banks, which had been pouring in money to finance both manufacturing over-production and domestic over-building, suddenly began a rush to withdraw their mostly short-term capital, precipitating a run on the money markets. East Asia found itself suffering from the familiar domino effect that marks an accelerating debt crisis, the same sort of downward spiral that is experienced in a stock market panic. Each foreign lender feared that all the others might withdraw their money and tried to get out as quickly as possible. The result was the self-fulfilling disappearance of overseas credit from the economy of the region, which made it impossible for producers, used to routinely rolling over their loans, to honour their commitments. The situation was made very much worse by the fact that Asian borrowers were having to repay their foreign loans with currencies that had lost much of their value and that exceedingly high debt-equity ratios were common throughout the region.

At this juncture the IMF, directed by the US Treasury, stepped in. The IMF might have attempted to get the international banks to agree to act together to keep their money flowing into Asia so as to counteract the panicky withdrawal of credit, for pouring in money is the normal remedy for a liquidity crisis. After all, the underlying problem facing Asian firms was, in the main, the insufficient international demand for their goods, not the inefficiency of their production, let alone their dependence upon (non-existent) government deficit spending. But concerned as it had been during the Latin American debt crisis mainly to see that US, European and Japanese banks would be repaid in full and that the region's economies would be opened up and liberalized, the IMF demanded in Hoover-like fashion that credit be tightened and fiscal austerity be imposed, radically exacerbating the domestic economic crisis and thereby the debt crisis and inviting devastating depression (Furman and Stiglitz, 1998; Radelet and Sachs, 1998; Wade, 1998; Wade and Veneroso, 1998).

The crisis in East Asia, which broke out in the summer of 1997 steadily worsened over the following year. During the summer of 1998, it spilled over into the less developed world, precipitating financial collapse in Russia and crisis in Brazil during the summer of 1998, which threatened the heartlands of capitalist development.

The Japanese economy had sought to surmount its own problems of reduced competitiveness in the face of world over-capacity by means of a profound reorientation of direct investment, trade and bank finance to East Asia. Especially in response to the ever-ascending yen and the correspondingly declining East Asian currencies, Japanese corporations had, after 1985 and even more after 1990, launched a huge wave of foreign direct investment in the region, relocating significant portions of their lower end production facilities in Thailand, Malaysia and the Philippines and bringing their networks of suppliers with them. They thereby not only gained better access, by indirection, not only to the crucial US market, but were able to profit enormously from the spectacular takeoff of the East Asian domestic market. Simultaneously, their Japanese-based plants secured growing markets for their capital goods and intermediate goods from East Asian importers, including their own overseas subsidiaries. Finally, as the East Asian boom gathered speed, Japanese banks found a seemingly endless demand for their credit. But, the entire effort backfired in the face of the contradictions built into world over-capacity and over-production in manufacturing: when Japan, with the help of the US and Germany, devalued the yen to pull itself out of its recession, it set off the crisis in East Asia, cutting off its own path to recovery. As East Asian markets contracted and East Asian currencies collapsed, Japan's growth motor once again stalled (Bevacqua, 1998).

The US economy, which had been experiencing a fairly unimpressive cyclical recovery through mid-decade, suddenly gathered speed in 1996. The boom had its roots, as noted, in rising manufacturing profitability, which was strongly buttressed by accelerating manufacturing exports and which led to accelerating manufacturing investment. But it was increasingly driven as well by the enormous growth of domestic consumption, which was itself heavily derived from the 'wealth effect' that resulted from the runaway rise in equity prices, which increasingly lost contact with the gains in profits that supposedly underpinned them from 1995. Big capital gains, sharply reduced rates of saving and the spectacular growth of private debt, both corporate and consumer – all based on rising stock values – put more money in consumers' pockets, making for spectacular growth in domestic sales. By 1997, it looked as if a growing US boom, still heavily based on exports – if increasingly subsidized by stock market-based consumption – might finally set off an upward spiral of international growth, pulling the world out of its stagnation and thereby creating a growing market for its goods and so on.

Nevertheless, as the mark and especially the yen underwent large-scale devaluations from the second half of 1995 and the dollar began a new ascent, US manufacturing competitiveness was, once again, increasingly threatened. When the Asian crisis hit, US producers faced not only stepped up competition from their chief rivals in Japan and Germany and elsewhere in Western Europe but also the collapse of their East Asian export markets and the flooding of US markets by cheap East Asian exports. During the course of 1998, US export growth, the essential motor of the boom, fell almost to zero and the key US manufacturing sector was set for a fall. The manufacturing profit rate could not but decline, as it did during the course of 1998 and this fall in earnings was, from the middle of the year, registered in sharply falling US share prices. The stock market decline threatened to end the US boom by bringing to an end the binge of consumption, which, in the wake of the collapse of export growth, was the boom's main source of support. Since the US was the world's consumer of last resort, a recession in the US threatened to plunge the rest of the world economy, already in crisis (outside of Europe), into real depression.

Between the end of July and the end of September, as much of the less developed world entered into crisis, the US stock market fell by 20 percent and by October a liquidity crisis was unfolding. It was at this point, as noted earlier, that Federal Reserve Chief Alan Greenspan stepped in, engineering the bail-out of the LTCM hedge fund and famously raising interest rates on three occasions. This marked a turning point, for it gave a clear signal to equity markets that they would not be allowed to fall, since the US Fed now looked to rising equities to dynamise the economy by fuelling consumption and in that way providing the basis for international economic stability. Share prices not only rebounded, but reassumed their skyrocketing trajectory and the US economic boom was thus enabled to continue.

Nevertheless, it cannot be over-stressed that by this time the manufacturing sector and in particular manufacturing exports had ceased to drive the US economy, as they had done through 1997, especially since neither the manufacturing profit rate nor manufacturing export growth at all recovered in 1999 from their major 1998 drop-offs. The ongoing expansion now depended for its vitality on exploding consumer demand, itself driven by an unprecedented explosion of household debt, which was ultimately rooted in, and in turn, fuelled runaway share prices. It had something of the character of a financial chain letter, but it made for continuing expansion. It should be added that the debt-driven growth of US consumption sucked in imports at a phenomenal pace, while the stagnation of much of the world's economy limited US export growth. The inevitable outcome was record-breaking US trade and current account deficits. But these have kept the world economy turning over and begun to produce a new upturn in both East Asia and Europe. In effect, a new form of artificial demand stimulus by means of *private* deficits – both corporate and consumer – made possible by the Fed's assurance to the stock markets, was substituted for the old Keynesian public ones. By the same token, it is mainly the stock market boom, buttressing the consumption boom, that stands in the way of a new recession and perhaps worse.

CONCLUSION: CAN THE BOOM BE SUSTAINED?

There can be no doubt that the current US economic boom has real roots. Above all, the rate of profit in the manufacturing sector, long depressed, came back during the 1990s to its level at the end of the 1960s and though still significantly below its mid-1960s peaks, it brought the rate of profit for the private business economy as a whole within shouting distance of its levels at the height of the post-war boom. Indeed, the *after tax* profit rate for the corporate economy as a whole, benefiting greatly from the tax breaks of the late 1970s and 1980s, by 1997 about equalled its peak of 1965–66. The recovery of the rate of profit has made for a significant increase in investment, starting around 1993 and this is perhaps the most irrefutable sign of the boom's power. It is also undeniable that, after experiencing an unimpressive expansion during the first half of the decade, the economy took off from 1996 and during the next four years, all of the major macroeconomic indicators including real wages, increased rapidly, while unemployment fell to its lowest levels in 30 years. Most significant perhaps, manufacturing productivity growth seems to have leapt forward and from 1996, productivity growth for the non-manufacturing economy also accelerated.

Amid all the hype, the actual dimensions of the current boom must be kept in perspective. In an outburst of enthusiasm for country and capitalism, US Federal Reserve chair Alan Greenspan crowed that 'It is safe to say that we are witnessing, this decade in the US, history's most compelling demonstration of the productive capacity of free

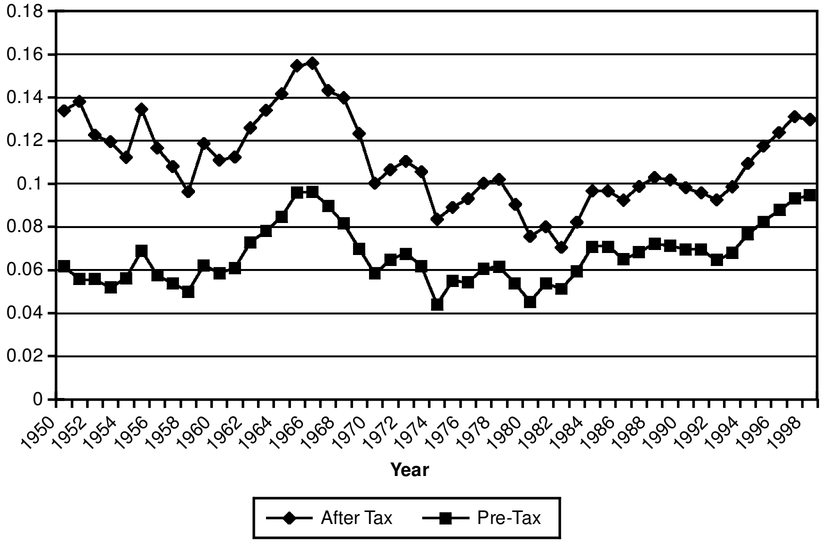

Figure 5 Corporate net profit rate

peoples operating in free markets'. This is far from the truth. The performance of the US economy in the 1990s did not remotely compare to that of the first *three* decades of the post-war era. Even during its supposedly epoch-making *four-year* economic expansion between 1995 and 1999, the business economy as a whole was unable to match its *twenty-three year* economic expansion between 1950 and 1973 in terms of the average annual growth of GDP (4.0 percent versus 4.2 percent), labour productivity (2.5 percent versus 2.7 percent) or real wages (2.1 percent versus 2.7 percent), or the rate of unemployment (4.7 percent versus 4.2 percent). Of course, between 1950 and 1973, US economic performance did not come close to that of most of Western Europe and Japan. Still, it cannot be denied that the economic expansion of the 1990s as a whole, when the burst of growth from 1996 is taken into account, did mark an improvement over that of the 1980s and 1970s and the recent boom is indeed impressive. Will it continue?

In terms of the argument advanced here, the answer to this question ultimately depends on whether systemic over-capacity and over-production in manufacturing has been overcome. Have the deep recessions and crises of the 1990s – in Germany and Japan in the first half of the 1990s, then in Asia and elsewhere from 1997 – resulted in a sufficient shakeout of oversupplied lines – the elimination of redundant means of production so as to pave the way for their replacement by complementary ones – to create the basis for a powerful cyclical boom and beyond that a new long upturn? Has the apparently dramatic reallocation of resources to newly developing high-technology lines that appears to have been made possible by the recent US investment boom contributed significantly to the same effect? Especially in view of the inevitable lag in the appearance of up-to-the-minute data, it is no doubt too early to tell. But there are reasons for doubt. Above all, the Japanese economy has continued to stumble, having been hit once again by a major revaluation of the yen. The German economy similarly dependent upon manufacturing exports though not in recession like the Japanese, has been slow to emerge from the 1998–99 slowdown. Even the US has been barely able to increase its exports during 1998 and 1999.

According to a survey by the *The Economist* taken early in 1999, 'Thanks to enormous over-investment, especially in Asia, the world is awash with excess capacity in computer chips, steel, cars, textiles, and chemicals. . . . The car industry, for instance, is already reckoned to have at least 30% unused capacity worldwide – yet new factories in Asia are still coming on stream'. *The Economist* goes on to assert, along lines analogous to those argued here, that 'None of this excess capacity is likely to be shut down quickly, because cash strapped firms have an incentive to keep factories running, even at a loss, to generate income. The global glut is pushing prices relentlessly lower. Devaluation cannot make excess capacity disappear; it simply shifts the problem to somebody else'. The upshot, it concludes, is that the world output gap – between industrial capacity and its use – is approaching its highest levels since the 1930s ('Could It Happen Again?' *The Economist*, 22 February 1999).

It has been the aim of the US Federal Reserve and the Treasury Department to pump up US economic growth sufficiently to enable the world economy to transcend the crisis of 1997–98, and international over-capacity and over-production more generally, by stepping up exports to the US. It has sought to achieve this end, as stressed, by driving up share prices, with the goal of unleashing – through providing both consumers and firms with greater assets and thus better access to finance – both a consumption boom and an investment boom. In its own terms, it has succeeded gloriously on both counts. By Alan Greenspan's own reckoning, the rise in share prices has added, via the 'wealth effect', about one percent per year to GDP over the past four years. GDP has therefore been enabled to grow in this period by a full 33 percent more than it would have in the absence of the stock market boom, at an average annual rate of 4 percent. Moreover, since the average annual growth of domestic consumption has outrun GDP by a full percentage point in this period – to grow an average annual rate of around 5 percent – imports from overseas have had to expand at the extraordinary annual average rate of 12 percent, making a pivotal contribution to the revival of economic growth on the world scale. Investment has simultaneously accelerated, making possible faster productivity growth and, through opening the way for rising profit rates, holding out the prospect of a self-sustaining investment expansion. The US authorities hope that US consumption demand will thus jump start a true boom in the world economy, allowing US exports to rise and that US investment demand will relieve the US economy itself from its dependence on rising consumption. The fact remains that the by-product of this burst of growth has been a series of 'imbalances' that threaten to bring it to a brutal end.

Above all, the stock market boom has issued in a runaway bubble, in which rising stock values have made possible the assumption of increasing debt to buy equities and drive the stock market still higher. Investors were quick to note that Alan Greenspan's intervention in the credit markets as the international economic crisis threatened to envelope the US in autumn 1998 was not the first of his bail-outs of the financiers and the corporations. In October 1987, he had intervened to counter the stock market crash and in 1990–1 he had reduced real interest rates to zero to rescue failing banks and deeply indebted corporations, in the wake of the leveraged mergers and acquisitions debacle. Nor did it escape their notice that the US treasury department went out of its way to rescue the international banks at the time of the Latin American debt crisis of 1982, US investors who stood to suffer huge losses as a result of the Mexican debt crisis of 1994–5 and the international banks once again in the case of the Asian crisis of 1997–8. They therefore drew the conclusion that Greenspan simply will not allow stock prices to fall too far, all the more so because they realize how dependent the current economic expansion had become on consumption and thus the bull market (Miller *et al.*, 1999). Believing that the risks of holding stocks had been sharply reduced – that the Fed would intervene if equity prices fall to far too fast – they continued to pile into the market with 'irrational exuberance', even as equity prices increasingly lost contact with the company profits that could justify them. Between 1982 and 1994, the rise of the S&P 500 Index and the New York Stock Exchange Composite Index did not very much outrun the rise of corporate profits. But, from that point on, the former entirely lost contact with the latter and in Spring 2000, the S&P 500 price-earnings ratio hit the unprecedented level of around 45: 1, a good 30 percent above the level of 1929 (Shiller, 2000: 6).

To make possible their consumption and their share purchases, both individuals and corporations have assumed unprecedented levels of debt. As is notorious, US personal savings, already low by international standards and falling during the 1980s, plummeted to zero from 6 percent during the 1990s. With their assets apparently rising sharply due to the appreciation of their stocks, individuals have been borrowing at a record pace. During the last four to five years both personal and consumer debt as a percentage of GDP have been at their highest levels in history.

Corporations have resorted to debt no less than have individuals. Taking up where they had left off during the leveraged mergers and acquisitions craze of the 1980s they have done so, moreover, almost entirely for the purpose of buying stocks. The resumption of the mergers and acquisitions movement accounts for a good part of this purchasing. But, it reflects also the desire of corporate executives – who receive a good part of their income in stock options (and typically not in dividends) – to drive up company stock values by buying back company shares and to do so by resorting to debt. In 1998, non-financial corporations borrowed a total of $343 billion: they used $80 billion of this total to finance plant and equipment expenditures that their retained earnings were insufficient to cover; they used the remainder, an extraordinary $267 billion, to buy back their own equities. Put another way, 100 percent of their stock purchases were debt-financed. Since this latter figure represented more than 50 percent of total net equity purchases made during 1998, it may be seen what a major role the corporations have played in driving up their own stock prices. Financial institutions and especially the banks, have themselves massively increased their liabilities in order to get in on the business of lending to purchasers of stocks, making for a huge growth in the supply of money, which has been accommodated by a passive Federal Reserve Board. In short, a boom in stock prices entirely out of line with any reasonable estimate of potential earnings has fed upon itself and now rests upon a tremendous pyramid of debt. Because of the debt build-up, there is a serious potential that, after a point, any decline in stock prices could snowball, as investors are forced to sell. Were such a fall to become at all serious, it would rein in the runaway growth of US consumption, threatening to turn off the motor driving the world economy.

Because spending has so outrun saving and domestic consumption has so outpaced domestic consumption, a significant proportion of the liabilities that have been incurred in the US have been to investors overseas. In 1999, the current account deficit as a proportion of GDP hit 4 percent, to exceed the previous record established during the Reagan administration. In effect – though not of course by design – foreign investors have been helping to finance the US consumption boom in order to stimulate their own economies. During the period of international crisis between 1997 and 1999, money flowed to the US as a safe haven. The low interest rates that have been adopted in recent years by governments in Europe and especially Japan to pull their economies out of stagnation and recession have also tended to drive money toward the US. The extraordinary success of US equity markets has, in addition, increasingly attracted overseas money. But, it is far from clear for how much longer it will continue to do so.

To the extent that the world economy does not actually expand, in part in response to the stimulus provided by the US, it is difficult to see how interest rates abroad can fail to rise. Were they to do so, funds would likely flow away from the US, which would either oblige US authorities to raise interest rates in turn or would force down the dollar and drive up interest rates through that channel. Either way, it is difficult to see how an increase in the cost of borrowing could be avoided. Alternatively, if over-priced equity prices were to fall significantly, money would likely flow rapidly abroad, again forcing up interest rates. But if interest rates were to rise significantly, as they seem likely to do, they would seriously threaten not only the bull market and the growth US consumption, but the boom itself . . . threatening the world economic revival. In 1987, in the context of similarly bloated current account deficit, a falling dollar drove up interest rates and precipitated the crash of the great bull market of the 1980s. Something similar could be in the offing in the current conjuncture, but there would be no cash-rich Japan waiting to bail out the stock market and thereby stabilize the real economy.

In the last analysis, US economic policymakers are counting upon the consumption-led boom to enable the US economy to place itself upon a firmer footing and thereby stave off any really serious decline in equity prices, keeping the international economy expanding. In their favoured scenario, growing US consumption will stimulate export-led booms throughout the world economy. It will thereby enable US producers to regain the high levels of export growth that they achieved through 1997, on that basis raise their profit rates, their investment growth and their productivity growth significantly further and thereby both reduce the current account deficit and better justify elevated equity prices (that have perhaps in the meantime have sustained a 'correction,' but have been prevented from crashing). For this to happen, the hoped-for increases in exports internationally will have to take place, in classic Smith fashion, by means of mutually self-reinforcing growth through specialization and the gains from trade. But the latter would require that the products that each region places upon the world market would mainly complement one another rather than compete and prove redundant, a pattern that has, however, proved elusive for at least a couple of decades. In other words, the systemic over-capacity and over-production that has long made for stagnation and crisis will have had to be transcended. Whether it actually has or not remains the ultimate question.

NOTES

This article was submitted and completed in March 2000.

1 See also my 'Uneven development and the long downturn: the advanced capitalist economies from boom to stagnation, 1950–1998', New Left Review no. 229, May–June 1998.

2 See below and cf. Brenner, 1998: 24–29.

3 It should be added that representatives of the French Regulation School advance an additional, supplementary thesis to support the general idea that faster rising costs was behind the fall of profitability that lay behind the onset of the long downturn (Aglietta, 1979; Boyer, 1986; Boyer, 1998; Lipietz, 1990). Specifically, they argue that the declining rate of profit resulted from a crisis of the Fordist technological paradigm, defined by them as, nothing more than Taylorism plus mechanization' (Leborgne and Lipietz, 1988: 6 emphasis added). It was thus the product of a 'crisis of productivity,' which manifested employers' declining capacity to derive productivity gains from increasing control over the intensity of labour, the break-up of tasks into their component parts, the standardization of operating practices, the separation of design and manual labour, the application of machinery, and ultimately the introduction of the assembly line. But this interpretation is hard to credit. Why should the economy of the US, which derived more or less steady gains from mechanization for at least a century before the late 1960s suddenly cease to be able to do so. How could it have been that, between 1965 and 1973, an 'exhaustion of Fordism' could have struck simultaneously economies at such different stages of industrial evolution as those encompassing the G-7? Given that the Japanese economy was so notoriously successful in securing accelerating gains from mechanization from the 1950s onwards – and offered to the world a pattern to emulate – why should there have been a crisis of mechanization? By the same token, why should the crisis of profitability have struck Japan so harshly as it in fact did, when Japan was so obviously enjoying increasingly rapid productivity growth?. Finally, why should one focus so single-mindedly on mechanization as the source of productivity gains, when it is so obvious that for over a century, industrial improvements were increasingly derived, beyond mechanization, from the application of scientific knowledge to technology, in field after field, including especially in such core sectors of the 'second industrial revolution' as petrochemicals and electricity. Nor is there significant empirical support for the idea of a 'crisis of fordism'. There is no evidence of a relatively slow, secular decline in productivity, as there should have been, if productivity problems had derived from an 'exhaustion of Fordism.' Even though the great bulk of the fall in profitability took place in the manufacturing sector, there is no evidence that manufacturing productivity growth fell at all in either the US or in the G-7 economies taken together between 1965 and 1973. When productivity growth finally did clearly decline, as it did after 1973, it fell precipitously not gradually, as it should have, if it were actually reflecting a decreasing capacity to derive productivity gains from mechanization. Indeed, since the fall in productivity growth was delayed until after 1973, it appears most sensible to interpret it as a result, not a cause, of the profitability decline . . . deriving from the sharp fall in the growth of investment precipitated by the fall in the profit rate. (Brenner and Glick, 1991, esp. pp. 96–105; Brenner, 1998).

4 See also below, Bar Graph: The Growth of Exports (Fig. 4)

5 It must be cautioned that the precise dimensions of the productivity growth acceleration remain uncertain, due to problems in interpreting the data that have arisen as a result of major recent changes in the methods and definitions used by the government in compiling the productivity figures. My inclination to give some credence to the government's revised data and to assert that there has indeed been a significant improvement in

productivity growth in the past six or seven years is based heavily on the belief that the significant acceleration of investment growth that has followed on the heels of the profitability improvement has likely borne fruit.

6 For the developments in the Japanese and German economies outlined in the previous four paragraphs, see Brenner, 1998: 213–234.

REFERENCES

Abramovitz, M. (1979) 'Rapid growth potential and its realization: the experience of capitalist economies in the post-war period', in E. Malinvaud (ed.) *Economic Growth and Resources. Proceedings of the Fifth World Congress of the Economic History Association*, vol. 1, New York: St. Martin's.

Abramovits, M. (1994) 'Catch-up and convergence in the post-war growth boom and after', in William Baumol *et al.* (eds) *Convergence and Productivity*, New York: Oxford University Press.

Aglietta, M. (1979) *A Theory of Capitalist Regulation. The US Experience*, London: Verso Press.

Armstrong, P. *et al.* (1991) *Capitalism Since 1945*, 2nd edn, Oxford: Blackwell.

Bello, W. (1998) 'East Asia: on the eve of the great transformation?' *Review of International Political Economy*, 5(3).

Bello, W. (1998) 'The rise and fall of South-East Asia's economy', *The Ecologist* 28(1).

Bernanke, B. S. and Campbell, J. Y. (1988) 'Is there a corporate debt crisis?', *Brookings Papers on Economic Activity*, no.1.

Bernanke, B. S. and Lown, C. S. (1991) 'The credit crunch,' *Brookings Papers on Economic Activity*, no.2.

Bernard, M. (1999) 'East Asia's tumbling dominoes: financial crises and the myth of the regional model', in L. Panitch and C. Leys (eds) *The Socialist Register 1999*, New York and London: Monthly Review Press.

Bevacqua, R. (1998) 'Whither the Japanese model? The Asian economic crisis and the continuation of Cold War politics in the Pacific Rim', *Review of International Political Economy* 5(3).

Blair, M. M. (1993) 'Financial restructuring and the debate about corporate governance', in M. M. Blair (ed.) *The Deal Decade. What Takeovers and Leveraged Buyouts Mean for Corporate Governance*, Washington, D.C.: Brookings Institution.

Block, F. (1977) *The Origins of International Economic Disorder*, Berkeley: University of California Press.

Boddy, R. and Crotty, J. (1975) 'Class conflict and macro-policy: the political business cycle', *Review of Radical Political Economics* ii.

Bowles, S. *et al.* (1983) *Beyond the Wasteland*, New York: Anchor Press.

Boyer, R. (1986) *La Theorie de la Regulation: Une Analyse Critique*, Paris: La Découverte.

Boyer, R. (1988) 'Technical change and the theory of 'regulation', in G. Dosi *et al.* (eds) *Technical Change and Economic Theory*, London: Pinter Press.

De Cecco, M. (1976) 'International financial markets and US domestic policy since 1945', *International Affairs* 52.

Eichengreen, B. (1996) *Globalizing Capital. A History of the International Monetary System*, Princeton: Princeton University Press.

Furman, J. and Stiglitz, J.E. (1998) 'Economic crisis: evidence and insights from East Asia', *Brookings Papers on Economic Activity* no.2.

Glyn, A. *et al.* (1990) 'The rise and fall of the Golden Age', in S. Marglin and J. Schor (eds) *The Golden Age*, Oxford: Oxford University Press.

Greider, W. (1987) *Secrets of the Temple. How the Federal Reserve Runs the Country*, New York: Simon and Schuster.

Henning, C. R. (1994) *Currencies and Politics in the United States, Germany, and Japan*, Washington, D.C.: Institute for International Economics.

Hudson, M. (1972) *Super Imperialism. The Economic Strategy of the American Empire*, Winston, New York: Holt, Rinehart.

Kaldor, N. (1971) 'Conflicts in national economic objectives', *Economic Journal* 81, March.

Kindleberger, C. P. (9167) *Europe's Post-war Growth*, Cambridge, Mass.: Harvard University Press.

Leborgne, D. and A. Lipietz (1988) 'New technologies, new modes of regulation: some spatial implications', *Environment and Planning D. Society and Space* 6.

Lipietz, A. (1990) 'Fallacies and open issues about post-Fordism', *CEPREMAP Paper no. 9009*, Paris.

Litan, R. E. (1991) *The Revolution in US Finance*, Washington, D.C.: Brookings Institution.

Long, W. F. and Ravenscraft, D. J. (1993) 'Decade of debt: lessons from the LBOs in the 1980s', in. M. M. Blair (ed.) *The Deal Decade. What Takeovers and Leveraged Buyouts Mean for Corporate Governance*, Washington, D.C.: Brookings Institution.

Maizels, A. (1963) *Industrial Growth and World Trade*, Cambridge: Cambridge University Press.

Miller, M. *et al.* (1999) 'Moral hazard and the US stock market: has Mr. Greenspan created a bubble?'. Unpublished MS.

Mishel, L. *et al.* (1999) *The State of Working America 1998–99*, Ithaca and London: Cornell University Press.

Morgan, A. D. (1980) 'Export competition and import substitution: the industrial countries 1963 and 1971', in R. A. Batchelor *et al.* (eds) *Industrialisation and the Basis for Trade*, Cambridge: Cambridge University Press.

OECD (1987) *Structural Adjustment and Economic Performance*, Paris: OECD.

Parboni, R. (1981) *The Dollar and Its Rivals*, London: Verso.

Radelet, S. and Sachs, J. (1998) 'The East Asian financial crisis: diagnosis, remedies, prospects', *Brookings Papers on Economic Activity*, no. 1.

Sachs, J. (1979) 'Wages, profits, and macroeconomic adjustment', *Brookings Papers on Economic Activity*, no. 2.

Shiller, R. J. (2000) *Irrational Exuberance*, Princeton: Princeton University Press.

US Council of Economic Advisors. (2000) *Economic Report of the President 2000*, Washington: D.C. US GPO

Wade, R. (1998) 'The Asian debt-and-development crisis of 1997-?: Causes and Consequences', *World Development* 26(8).

Wade, R. and Venerso, F. (1998) 'The Asian crisis: the high debt model versus the Wall Street-Treasury-IMF Complex', *New Left Review*, March–April.

White, L. J. (1992) *Why Now? Change and Turmoil in U.S. Banking*, Group of Thirty, Washington, D.C., Occasional Papers, no.38.