I've decided to tackle Brenner's *Economics of Global Turbulence* (2006), a true masterpiece, practically a work of genius. Perry Anderson goes so far as to say, "it is plain that here, as in no other body of work today, Marx's enterprise has found a successor. To have developed as coherent, detailed, and deep-going an attempt to understand the history of the world market—where Marx left off in *Capital*—since the Second World War must be regarded, by any standards, as an extraordinary accomplishment."[1] If I don't take notes I'll forget everything. So here goes…

According to Brenner, there have been two periods in recent international economic history: prosperity from the late 1940s to 1973, and slowed growth and economic turbulence from 1973 onwards. *Why?* Orthodox economics doesn't know, barely even acknowledging the trajectory. "The major existing alternative [to orthodox neoclassical economics]…finds the source of the shift from long boom to long downturn in the increased power of and pressure from labour exerted against capital, itself the result in part of the long extension of the postwar economic upturn. But, with the benefit of hindsight, this thesis would seem to have been definitively undermined by the failure of the decisive [neoliberal] weakening of labour vis-à-vis capital during the 1970s and 1980s to bring about the restoration of system-wide economic vitality." Many commentators would argue that after the 1970s there *was* a restoration of international economic vitality, but one of the purposes of Brenner's book is to show that they're wrong. Despite appearances, the global economy has basically been in a sickly state since the early 1970s.

Brenner sees *profitability* as key to the whole story.

> The realized rate of profit is the direct measure of firms' ability to derive surpluses from their plant, equipment, and software. It is also the best available predictor of the rate of return that firms can expect on their new investment. As a result, the rate of profit is the fundamental determinant of the rate at which the economy's constituent firms will accumulate capital and expand employment, therefore of its output, productivity and wage growth, and, in turn, of the increase of its aggregate demand, both investment and consumer. From this point of departure, an initial account immediately follows. What made possible the inauguration and long perpetuation of the postwar boom in the US, Europe, and Japan was the achievement, over the period between the late 1930s and late 1940s, of elevated rates of profit and their maintenance during the following two decades. What brought the postwar boom to an end was a sharp fall in

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[1] Perry Anderson, *Spectrum* (New York: Verso, 2005), 258.

> profitability for the advanced capitalist economies taken individually and together between 1965 and 1973, focused on the manufacturing sector but extending to the private economy as a whole, beginning in the US but soon encompassing Western Europe and Japan. The reason that, as of 2000, there had been no clear revival of the global economy is that there had been no decisive recovery of the profit rate system-wide, or in the US, Western Europe, or Japan considered separately. [Brenner's analysis throughout the book focuses on the US, Germany, and Japan, as representative of the three poles of the advanced capitalist world.] The challenge posed by these results is, of course, to account for the pattern of profitability itself—both for the system as a whole and for its various regional and national components… To respond to that challenge is, simply stated, the project of this book.

Why does the rate of profit have a tendency to fall? Because of the anarchy and competitiveness of capitalist production, which "require individual capitals [i.e., businesses] to cut costs in order to survive by introducing fixed capital embodying ever more efficient technology, but to do so not only without reference to the reproductive requirements of other businesses, but by threatening their profits and indeed their very existence. The outcome in aggregate is, on the one hand, to bring about the unprecedented development of the productive forces. But it is, on the other hand, to prevent firms with higher-cost methods of production frozen in their already-existing plant, equipment, and software from realizing their fixed capital investments. This manifests itself in over-capacity and, in turn, reduced profitability."

Okay, so, a lot of theory. How do you connect it to reality? Through an intermediate conceptual link, which gives a reason for thinking that capitalist economic expansion will take the form of uneven development. Namely, Brenner argues that there will be an early-developing bloc of capital (the U.S. in this case, immediately after the Second World War) that is technologically and socio-economically more advanced, and later-developing blocs of capital (in Western Europe and Japan) that are at first backward but are "able to exploit the potential advantages of coming late and of cultivating new, hitherto less developed regions." Eventually, the later-developing blocs challenge the earlier-developing "by combining lower-cost inputs [such as labor] and equal or more advanced technology, making for an intensification of inter-capitalist competition that undermines the ability of large masses of fixed capital investments to realize themselves, leading to the onset of over-capacity and declining rates of profit." This intensification of competition occurred between 1965 and 1973, and led to falling profitability system-wide.

But if that explains, in summary form, why the downturn started, why has it lasted so long? Especially given that firms, assisted by governments, have sought to restore their profit rates "by means both of the obsessive reduction of costs, above all direct and indirect labour costs, and the transformation of their ways of doing business." Hence attacks on the working class and the neoliberalizing of the global economy since the 1970s. E.g., firms "shifted capital out of high-cost, low-profit manufacturing lines, especially into financial services, and turned increasingly to speculation." All this was meant to cope with the problem of reduced profitability. But somehow it couldn't prevent the performance of the advanced capitalist economies from *worsening* as time went on.

So what is the explanation of the length of the downturn? Simply that private sector profitability didn't recover, due to the "paradoxical persistence of chronic over-capacity in international manufacturing." What happened is that, "on the one hand, in response to falling profit rates, firms had to slow the growth of investment and employment, while seeking to reduce the level of their costs, particularly labour costs, in the multifarious ways indicated above. The outcome, in the face of the persistent failure of profitability to recover, was a chronic and worsening problem of investment, consumer, government, and therefore aggregate demand. On the other hand, contrary to expectations, the great firms of the advanced capitalist world sought only tardily and with the greatest reluctance to respond to their profitability problems by withdrawing their capital stock from oversubscribed lines of production. Instead, they defended their positions in the world market as long as possible by improving their competitiveness by expanding investment as much as they were able, even in the face of reduced rates of return." At the same time, more countries in East Asia, such as Taiwan and South Korea, entered the world economy, as Western Europe and Japan had earlier. This led to more problems: increasingly sophisticated manufacturing products were poured into already over-supplied world markets, which increased still further the stress on world manufacturing profit rates.

> Nevertheless, the intensification of over-capacity in world manufacturing markets (which resulted from both the unexpected persistence of incumbents from the advanced capitalist world and the unprecedented ingress of entrants from the developing world, especially East Asia) in the face of a deepening problem of insufficient aggregate demand (which resulted from universal cost-cutting and the slowdown of investment and job-creation consequent upon the decline of profitability) did not lead, as might otherwise have been expected, to a large-scale shakeout of high-cost, low-profit means of production by making for serious recession or

> depression. [This "shakeout" is what used to happen in the nineteenth and early twentieth centuries, when depressions got rid of unprofitable businesses *en masse*.] This was because the governments of the advanced capitalist world, led to an ever-increasing extent by the US, made sure that titanic volumes of credit were made available, through ever more varied channels, direct and indirect, both public and private, to firms and households to soak up the surplus of supply over demand, especially in the wake of the serious cyclical downturns that periodically threatened stability. Rather than system-shaking crisis, we therefore witnessed the continuation, stretching over three decades, of persistently reduced rates of profit that made for ever-decreasing economic vitality on a global scale, along with ever more destructive asset price bubbles and financial implosions, and increasingly severe cyclical downturns. The upshot was the predicament facing the world economy as it entered the new millennium: namely, the still further continuation of the long downturn against a background of over-supplied lines of production, decelerating aggregate demand, and a mountain of over-priced paper assets, all made possible by the accumulation of private and public debt at unprecedented speed and at historic levels.

On one level, then, it amounts to too much supply, not enough demand. But it's not quite that simple, because if real wages had been allowed to rise in the decades after 1973, the rate of profit would have been even lower than it was. So, from one perspective—it seems to me—it was and is useful to business and economic growth to take more and more from labor, since that increases profitability. On the other hand, suppressing demand *too much* has disastrous consequences. So it's strange: a reduction in real wages (or in the growth of real wages) can be both bad and good for the economy. But ultimately, I guess, it's bad. For individual firms it's a good policy to reduce wages, but for the economy as a whole it's bad, at least in the long run, because then the masses won't have enough purchasing power to buy the goods that are being produced. So profit-rates will decline, which will cause investment to decline, which will result in laid-off workers and reduced wages, which will further decrease aggregate demand, etc.

"The contention, so dear to the hearts of business advocates and neoliberal politicians, as well as some neoclassical economists, that the turn to ever-freer markets and ever-deeper austerity must bring, and has brought, ever-greater economic vigour is in defiance of the evidence. The fact is that, for the advanced capitalist economies taken singly or together, economic performance has worsened, business cycle by business

cycle, since the end of the postwar boom in terms of all of the main macroeconomic indicators: the growth of GDP, capital stock, labour productivity, and real compensation. Economic performance was less good during the 1990s than the 1980s, which lagged the 1970s, which was, of course, far worse than the economic performance of the 1950s and 1960s."

"Between 1970 and 1990, the manufacturing rate of profit for the G-7 economies taken together was, on average, about 40 percent lower than between 1950 and 1970… As I shall try to demonstrate, the major decline in the profit rate throughout the advanced capitalist world has been the basic cause of the parallel, major decline in the rate of growth of investment, and with it the growth of output, especially in manufacturing, over the same period. The sharp decline in the rate of growth of investment—along with that of output itself—is, I shall argue, the primary source of the decline in the rate of growth of productivity, as well as a major determinant of the increase of unemployment. The declines in the rate of growth of employment and productivity are at the root of the sharp slowdown in the growth of real wages.

"*To explain the origins and evolution of the long downturn through an analysis of the causes and effects of changes in profitability is thus the objective of this study.*" My italics.

"The fall in *aggregate* profitability that was responsible for the long downturn was the result of…the over-capacity and over-production that resulted from intensified, horizontal intercapitalist competition. The heightening of intercapitalist competition was itself brought about by the introduction of lower-cost, lower-price goods into the world market, especially in manufacturing, at the expense of already existing higher-cost, higher-price producers, their profitability and their productive capacity. The long downturn, from this standpoint, has persisted largely because the advanced capitalist economies have proved unable to accomplish profitably sufficient reductions and reallocations of productive power so as to overcome over-capacity and over-production in manufacturing lines, and thereby to restore profitability, especially given the growing presence of East Asia in world markets."

Having *outlined* the theoretical framework and objectives of the book, Brenner goes into more detail on the theory. He starts out by critiquing what he calls "supply-side" explanations of the downturn, which explain it in terms of declining labor productivity in the 1970s combined with a failure of real wage growth to adjust downward in tandem (due to workers' supposedly excessive political power, as well as to tight labor markets). Thus, rates of profit have declined because productivity growth has declined more than the growth in workers' wages has. There has been a squeeze on profits. Even many Marxists and radicals subscribe to this theory. Brenner characterizes it as Malthusian, because Malthus (and Ricardo) thought that in agriculture there is a

long-term tendency to declining growth of labor productivity. Ultimately the upshot of this was supposed to be economic stagnation or crisis. Luckily Malthus was wrong: modern science came to the rescue by making possible various agricultural technologies that increased productivity. Nonetheless, many economists (on the left and right) are still attracted to the general "supply-side" idea that a secular, or long-term, decline in productivity growth can and does cause a fall in profitability. Even Marx himself embraced the idea (according to Brenner), despite his aversion to Malthus. His explanation for the tendency of the profit rate to fall was that as mechanization increases, more and more capital inputs and fewer labor inputs go into producing a commodity, which means that less surplus-value is embodied in the commodity. (And profits, says Marx, arise from surplus-value.) As Brenner paraphrases Marx, labor productivity actually increases with mechanization, but *overall* productivity—taking into account both capital and labor inputs—declines.

Anyway, the point is that "Marxists and radicals have joined liberals and conservatives in explaining the long downturn as a 'supply-side' crisis, resulting from a squeeze on profits, reflecting pressure on capital from labour that is 'too strong' [because of strong unions in the 1960s and '70s]. In so doing, they have characterized the current crisis in terms just the opposite of those that have often been used to characterize the long downturn of the interwar period [between the two world wars], a crisis widely viewed as a 'demand-side' or 'under-consumption' crisis, resulting from an overly high profit rate, reflecting pressure from labour that was 'too weak.'" This demand-side interpretation of the Great Depression, of course, is the classical Keynesian one—although, incidentally, Marxists and other socialists were putting forward this argument before Keynes was.

So why are the supply-siders wrong about the post-1960s downturn? First, while it's true that full employment tends to result in higher wages (which squeeze profits), it also leads to higher sales, hence more profits. The latter effect may offset the former. Second, the acceleration of real wage growth tends to cause firms to substitute labor-saving capital for labor, which increases overall productivity. Third, because of the high demand for labor, immigration from abroad will probably increase, thereby reducing the tightness of the labor market. At the same time, capital will be exported to regions of the world where labor is cheaper.

But let's suppose that full employment (and higher pay) does occasionally cause a significant fall in profitability. This still won't cause a *long-term* reduction in the profit rate, because firms will inevitably respond to their reduced profitability by reducing investment. "As a result, sooner rather than later, the labour market will loosen sufficiently" to allow for the restoration of profitability. –In response to this argument, supply-siders maintain that the postwar political power of labor (through unions,

unemployment insurance, etc.) was such that the labor market couldn't function properly. Profit-squeezing wages have therefore been able to persist alongside high levels of unemployment. Brenner counters that in *given* firms or industries for *given* periods of time, labor's entrenched power might skew the operation of the labor market. But it cannot so squeeze profits as to cause a *long-term, system-wide downturn*, simply because firms can always choose to invest in some area where workers have less institutionalized power. And if they don't so invest, they'll go out of business, because other firms *will* so invest.

In any case, the fact that supply-side theorists explain the long downturn in terms of the operation of institutions and impact of policies means that they have to explain it in historically and nationally specific ways. But how can such explanations account for a *universal, simultaneous* and *long-term* downturn? Clearly they can't.

After his demolition of the supply-side account, Brenner introduces his own approach in a very abstract and dense theoretical discussion. The main point is that, contrary to the received wisdom, when a new firm that uses cost-cutting technical advancements enters an industry—or rather a "line"—dominated by firms with relatively high costs of production and sells its products at a lower price than they do (because of its lower costs of production) so as to increase its market share, the old firms *cannot* be expected to take action immediately by either adopting the new techniques of the innovating firm or leaving the line as a result of their reduced profitability (which is due to competition with the innovating firm). The reason is that *if they have fixed capital* they will, first of all, not want to leave the line immediately as long as they can continue making profits that are at least above the costs of their circulating capital (which is "the investment in labor power, raw materials, and semi-finished goods that is required to put their fixed capital into motion"). Their fixed capital is "sunk." They've already paid for it, so they might as well keep using it as long as they can get at least some profit from it. As for why they won't immediately adopt the new techniques of the innovating firm, that's because the technical interrelatedness of their plants makes it difficult to adopt specific new inventions without changing the whole structure of the plant, or scrapping it all. And the cost of doing that may be prohibitive, especially if the plant is still basically efficient. Furthermore, even *between* plants and other units in a given productive system it may be "difficult to innovate in one part without changing some or all of the others." Thus, productive systems are "inertial," which increases their vulnerability to new, lower-cost production based on new techniques.

But I haven't said the most important thing yet: because the new, innovating firm lowers the price of its products to steal market share from other firms, it actually does not make a higher rate of profit than those firms did before it entered the market. And once it has entered, the older firms have a *lower* rate of profit than they did because their

market share is lower. So what has happened is that the average rate of profit in the line has fallen. This lower rate of profit can be expected to adversely affect profits throughout the whole economy, for complex reasons I won't go into.

Brenner thinks of fixed-capital investment throughout the economy as taking place in "waves," or being "embodied in large, technically interrelated, developmental blocs." "This occurs because each investment tends to depend on others to provide the demand to its output and the inputs for its production process. Think of the interrelated rise of railroads and shipbuilding, coal mining, iron and steel production, and machine-tool production in the middle third of the nineteenth century, or the interrelated expansion of automobile, steel, iron, coal, and petroleum production, along with highway construction, in the US economy in the years following World War II." These developmental blocs are inertial, hence vulnerable to new, more productive, developmental blocs that may appear. But these large-scale processes of technical change and cost-cutting will not appear in some sort of continuous, unilineal way. Because of barriers to entry in markets, cost-cutting investors will tend to arise in new geographical regions (e.g., postwar Japan and Germany) where they don't face immediate and vicious competition with already-dominant firms. Moreover, production can be cheaper in such late-developing regions because "producers have the potential to emulate the advanced techniques of their rivals from the old bloc while availing themselves of less expensive labour and paying lower rents than in developed areas where living standards have increased in accord with the growth of labour productivity." Also, sometimes producers in these new regions have the advantage of trade protection, beneficial state intervention, etc.

In the long run, capitalists in these late-developing regions will improve and expand their productive capacity to the point that they can profitably enter already occupied markets. New blocs of capital will thereby come into competition with the old. And so the average rate of profit will decline, etc., in accord with the scheme outlined above. High-cost firms in the old bloc might well respond to the new situation by counterattacking, defending their markets by investing in new fixed capital. This strategy will tend to provoke the original cost-cutting innovators to accelerate technological change themselves, "further worsening the already existing over-capacity and over-production" (which is "over-" in relation to the previously and still prevailing rate of profit; i.e., it drives the profit-rate down). As rates of profit fall, the growth of investment, of employment, and of wages necessarily falls as well—i.e., demand falls—which makes it more difficult for firms to change to new lines. And productivity grows more slowly too, because of decreased investment. "It becomes harder to find alternative lines in which old levels of profitability can be maintained for the simple reason that such lines are emerging and expanding less rapidly."

To make things even worse, still lower-cost producers might enter the market.

> Just as the mere over-supply of a line of production cannot be counted on to force enough exit to restore its profitability, that same over-supply is insufficient to deter further entry that could bring down its profit rate further. On the contrary. The initial fall in profitability that results from processes of uneven development bringing about over-capacity and over-production can be expected to intensify the worldwide drive for even lower production costs for the same products through the combination of even cheaper labour with even higher levels of technique in still later-developing regions. To the extent this drive succeeds…it only intensifies the initial problem.

Firms will tend to respond to the hard times by taking out loans so as to increase investment or just to survive until things get better. This growth of borrowing facilitates the survival of low-profit firms and so exacerbates over-capacity and over-production, slows the restoration of profitability, etc.

Additionally, the fall in profitability *itself* generates further downward pressure on the profit rate by causing a reduced growth of productivity (due to the reduced growth of investment)—and lower productivity, of course, means lower profits.

In the rest of the book, Brenner applies these ideas to the history of the international economy after World War II. Here's a short summary.— From the early 1960s, due in part to the "dramatic reduction of trade barriers at the end of the 1950s," Germany and Japan took increasing shares of the international market at the expense of the U.S. and U.K. U.S. manufacturers found that their prices were under significant downward pressure, which meant that their rates of profit suffered. Partly because of the enormous size of the U.S. economy, aggregate profitability of the advanced capitalist economies fell in the years between 1965 and 1973. "Meanwhile, between 1969 and 1973, as part and parcel of the same processes of intensifying competition that brought down profitability in the US, the explosion of Japanese and German current account surpluses and US current account deficits—catalyzed by the rise of record US federal deficits—precipitated the collapse of the Bretton Woods system and with it a major devaluation of the dollar, leading to a dramatic restructuring of relative costs internationally in favor of US producers. The mark and the yen sustained major increases in value against the dollar, and, as a result, some of the burden of profitability decline was shifted away from the US economy and the international crisis was extended to both Germany and Japan."

"Rather than leave their lines, U.S. manufacturing corporations, aided by the even further devaluation of the dollar, sought to improve their profitability and competitiveness by launching a powerful wave of investment during the 1970s and radically reducing the growth of wage costs, direct and indirect." Given cheaper U.S. goods on the world market, German and Japanese manufacturers did the same thing as U.S. ones had, namely cut their costs, took out more loans, and *didn't* change production to different lines. Later, newly established producers in East Asia entered markets, perpetuating the downturn into the 1990s. Nonetheless, a series of major recessions did not lead to depression because of the massive growth of public and private debt, "made possible largely by the enormous expansion of government borrowing."

> From the end of the 1970s, the epoch-making turn from Keynesian debt-creation [in the postwar period] to monetarist credit restriction and intensified austerity did accelerate the destruction of redundant capital, especially in manufacturing, but it simultaneously made more difficult the necessary allocation of investment funds into new lines. Meanwhile, from the mid 1980s, on the basis of another round of massive dollar devaluation against the yen and the mark, there began a major new shift in the locus of the most competitive manufacturing production—in favor of the US and against Germany and Japan. In the US, while growth remained slow, profitability did begin to rise, dramatically so towards the mid 1990s. This was in part because wage growth was so effectively held down and the dollar so heavily devalued against the currencies of Germany and Japan. But it was also in part because the US manufacturing sector achieved a certain rationalization and revitalization, largely through shedding redundant, ineffective capital and intensifying labour.

Nevertheless, in large part because the growth of domestic demand in the advanced capitalist economies was curtailed by restrictive macroeconomic policies and other causes, "there was no transcendence of the underlying problem of reduced system-wide manufacturing profitability." Advanced capitalist economies oriented themselves increasingly toward growth in manufacturing exports as domestic markets grew much more slowly. Thus, over-capacity and over-production continued.

Now for more detail. Over the course of the 1950s and 1960s, "in one key industry after another"—textiles, steel, automobiles, machine tools, consumer electronics—Germany and Japan forged ahead of the U.S.

After World War II, the U.S.'s labor movement, unlike Germany's and Japan's, was strong enough to push up wages rapidly, "especially when cyclical upturns pushed down unemployment, as at the time of the Korean War." Wages in Germany and Japan were much lower because of large industrial reserve armies and the labor movement's suppression with the advent of the Cold War. Hence, higher profit rates. Conservative trade unions in fact gave top priority to the needs of capital accumulation. Thus, "the postwar boom in both countries was predicated more on the defeat of labour than on its recognition, more on the explicit subordination of labour than the consolidation of any putative 'capital-labour accord.'" To say it differently, "it was the long postwar expansion itself which made possible labour's substantial material gains and its ulterior (partial) socio-political integration through the emergent trade-union bureaucracies—not vice versa." German and Japanese workers hinged their fates to that of 'their own' firm. Through enterprise unions and works councils, they facilitated their firms' achievement of international competitiveness.

In the U.S., on the other hand, rapid economic growth from the late 1930s to the late 1940s "raised barriers to further improvement by leaving in its wake masses of fixed capital capable of deterring further entry and investment, by using up factor supplies, especially surplus labour, and by facilitating labour resistance." Also, the great manufacturing corporations and international bankers had an interest after World War II in helping other countries rebuild, because that's where many of the best opportunities for profit would be. So these forces got the U.S. government to support "a policy of free flow of goods and investment funds that would allow the multinationals and international bankers to make direct investments and loans abroad and allow imports to flow back into the country." Besides, U.S.-based exporters needed to allow their prospective customers abroad to sell goods to the U.S. in order to earn the currency they would need to buy U.S. goods. For these and other reasons, the government opened up the U.S. market to exports from its economic rivals while accepting their own protectionism. "It thereby helped to create the conditions for the secular decline of competitiveness of U.S. domestic manufacturing." In other words, it made possible the export-driven economic growth of Germany and Japan, which eventually undercut the markets and profits of U.S. domestic manufacturers.

One of the morals of the story is that it *wasn't* "new [Keynesian] arrangements for keeping domestic demand up with production" that were responsible for the extraordinary growth rates of Germany and Japan. Their economic miracles were based on *supply-side* advantages, including various institutional and policy advantages, not on *demand-side* facts. Indeed, their governments held down the growth of domestic demand (by imposing balanced budgets and relatively tight credit) in order to achieve low inflation in the interest of overseas sales.

In the long run, Germany's and Japan's growth of exports was self-undermining, for several reasons. An important one is that its obverse side was the "tendential decline of U.S. manufacturing competitiveness, the tendential rise of U.S. external deficits, and the tendential decline of the U.S. currency. Implied was the declining capacity of the U.S. market to absorb its allies' and rivals' goods and thus to serve as the 'motor of last resort' of their economies. The very processes by which the German and Japanese economies achieved rapid growth during the postwar boom tended to destroy the foundations of their success."

Brenner briefly argues against Paul Baran and Paul Sweezy's theory of capitalist stagnation arising from the predominance of monopoly capital. (See their book *Monopoly Capital: An Essay on the American Social and Economic Order* (1966).) It's true, as they say, that the U.S. economy grew more slowly as the 1950s progressed. But their main ideas, Brenner argues, were merely reifications of temporary and specific aspects of the U.S. economy in the 1950s. The *world* economy was not at all stagnant at this time, and the U.S. economy was only *relatively* stagnant compared to Germany and Japan. Moreover, its stagnation was simply a result of the fact that the U.S.'s "manufacturing sector offered relatively limited opportunities for profitable investment compared to those available in manufacturing outside the U.S." Firms thus invested abroad in order to generate profits, resulting in relative stagnation in the U.S. It's true, too, that in certain restricted senses "oligopolistic competition" fettered investment in the 1950s and 1960s. And as we've seen, high wage-rates decreased profitability as compared to the low wage-rates that permitted high profitability abroad.

"The slow growth of investment [in the U.S. in the 1950s] may well have been partly responsible for the reduction in the growth of labour productivity in manufacturing." I should note, incidentally, that Brenner backs up every statement with extensive empirical data.

"While the powerful surge of manufacturing productivity growth of the immediate postwar period petered out in the 1950s, wage growth failed to follow suit. The 1950s was the true golden age for the American worker… *If there was a major squeeze on profits by the action of labour at any point during the postwar epoch, it took place in manufacturing in the course of the 1950s.*" (Brenner's italics.)

"With wages rising, with slow investment growth helping to push down both labour and capital productivity growth, and with capacity utilization declining, the 1950s understandably witnessed a very major decline in manufacturing profitability. Between 1950 and 1958, the manufacturing profit rate fell by 41 percent…" As if all this weren't enough, the American economy experienced inflation in the latter part of the

decade as employers tried to pass on wage increases in the form of price increases. U.S. prices rose above those of its competitors.

Recessions occurred in the U.S. at the end of the 1950s. But the economy recovered in the first half of the 1960s. Manufacturing output grew fast, GNP grew fast, etc. Why? Because of a spectacular rise in the rate of profit. "Between 1958 and 1965, profitability in manufacturing rose by no less than 80 percent, in the private business economy by 45 percent. Increased profitability brought about increased growth by spurring a powerful boom in investment." Critical to the rise in profitability was an employer offensive against labor, made possible in part by the rise of unemployment due to recession that had itself been partially brought on by high wages' squeezing of profits. Employers defeated their workers in several large strikes, and they resisted extensions of unionization increasingly successfully, often by building new plants in the un-unionized south and southwest of the country. Unions won workplace elections less frequently, rates of unionization began to fall, there was a stepping up of supervision on the shop floor, etc. "All of these trends have continued to the present, and one cannot but conclude that the decade from the mid 1950s to the mid 1960s marked a turning point for the U.S. union movement, the beginning of a long and precipitous process of decline." The upshot of the employer offensive was a significant lowering of the rate of wage growth. Investment therefore increased, productivity increased, and exports increased.

The recovery couldn't continue forever, though, because the trends of reducing wage growth on which it was largely based could be carried only so far. And the German and Japanese economies were still growing, etc. In fact, even in the mid-1960s the U.S. saw its share of world manufacturing exports fall from 18.7 percent to 15.8 percent.

Let's look at Germany. Its impressive growth after the war was due primarily to its export dynamism, made possible by the fact that "it could use its very cheap labour and historical endowment of very highly skilled labour to emulate, and in some cases surpass, U.S. production methods and, on that basis, seize markets formerly held by U.S. manufacturers." Incidentally, the Korean War was important in jumpstarting, after a severe recession caused by a deflationary monetary policy, Germany's export-driven boom (since American demand shot up). In general, the growth of demand in the American economy, "and particularly the stabilization of demand there by means of large-scale military spending," contributed mightily to the expansion of Germany's export-oriented economy (which was itself founded on anti-Keynesian policies—i.e., budget surpluses, tight credit, and high interest rates).

In causing high demand for labor and nearly full employment, why didn't the boom lead to significant wage increases and corresponding pressure on profits? Because of the large reserves of labor in the German countryside and abroad. Also, mass emigration of skilled labor from East to West Germany helped keep the labor market loose.

"During the late 1950s and early 1960s, while the U.S. economy temporarily broke from its long-term pattern of relatively slow growth, the German economy sustained an interruption of its momentum." From the mid-1960s, the economy regained some of its former dynamism. But what caused the downturn between 1960 and 1965? Two things: "first, the rise of manufacturing producers across the advanced capitalist world prepared to challenge German producers for markets and, second, the self-limiting character of a German form of economic development that was structured to stimulate the growth of manufacturing exports at the expense of the domestic market." From the late 1950s, the German economy's costs of production rose in relation to those of its increasingly competitive rivals France, Italy, and Japan. In 1961 a revaluation of the mark exacerbated the problem by increasing relative labor costs. The growth of relative costs in turn sharply reduced Germany's capacity to export.

As for the self-limiting character of export-led growth: such growth was "buttressed by macroeconomic policy aimed at restricting the growth of demand so as to keep down prices," as I mentioned above. But the consequence of this was major current account surpluses, which in turn created strong pressures to revalue the mark (as was done in 1961). Mark revaluations, in turn, undermined competitiveness, for they tended to entail higher relative unit labor costs. "Germany's competitiveness thus threatened to self-destruct by bringing about an increase in German relative prices," either through inflation or through mark revaluation.

Now Japan. In 1950 it had very low manufacturing productivity but even lower wage rates. Cheap skilled labor was key to its postwar economic boom. It's true that the labor movement was very strong immediately after the war, as it was in Germany, Italy, France and elsewhere, but with the start of the Cold War it was crushed by political means. Between 1950 and 1960, Japanese manufacturing output grew at an astonishing pace, on the basis of equally astonishing growth in investment and hence productivity. "What made it possible to sustain such rapid growth was, as in Germany, the Japanese economy's ability to prevent the investment boom from bringing about the too rapid growth of costs." Wage pressure was minimal throughout the whole period. As a result, the profit rate soared.

Market forces, however, were not in themselves responsible for all these successes. Crucial were horizontal networks in manufacturing, to plan, reduce risk, etc.,

and the effective merger of finance and industry. Banks heavily involved themselves in the operations of their manufacturer-debtors, which enabled the latter to finance themselves to an unusual extent on the basis of debt rather than equity, which was good because stocks typically require higher rates of return than loans (due to their higher risk). “Firms were thereby [and for other reasons as well] relieved of the need to pay large dividends,” which meant that they could channel more of their profits into investment than American and other competitors could. “They were allowed, moreover, to orient their operations to long-run returns, subject only to their ability to satisfy their banker-financiers.”

The state, too, played an important role in Japanese economic growth. “Largely at the expense of workers and consumers, it provided desperately needed investment funds, either directly or through the banks, to Japan’s leading corporations and effectively guaranteed their continuing existence. By making financial advances contingent on how these funds would be used, the state was able to go far in determining the direction of the explosive process of growth that its patronage made possible.” The state also made sure that interest rates were kept low for the great manufacturing corporations. And it made huge investments in infrastructure, and gave huge tax breaks on capital investment, and established massive protectionism across almost the whole manufacturing sector, and so on. The successes of all these measures, incidentally, demonstrate the bankruptcy of neoclassical orthodoxy, which of course denounces everything that interferes with “free markets.”

One of the reasons why wages didn’t increase so as to squeeze profits is that, as in Germany, a large part of the laboring population was still in agriculture. But also, the labor movement was oriented to the needs of capital accumulation. Japanese unions, “enterprise unions,” were organized on a firm-by-firm basis. After the suppressing of labor’s militancy at the start of the Cold War, “workers saw little choice but to hitch their fate to that of their firms, and to seek to improve their condition by improving their firms’ profitability.” This system of collaborative labor relations actually served workers well, since they accrued steady wage increases (in absolute, not relative, terms) and had excellent job security. –However, only the labor force employed by leading manufacturing corporations was unionized.

Brenner sums up his discussion of the “long boom” by criticizing Keynesian explanations of it.

> [He admits that] the increased steadiness in the growth of demand [from the late 1940s to the mid-1960s], resulting from the permanently increased size of the state sector in most of the advanced capitalist economies, must have helped endow these economies with greater stability than in the past.

> It may also have made for increased confidence on the part of capitalists, encouraging them to invest and innovate. But in Germany and Japan, where the most rapid growth took place, supply-side conditions were clearly responsible for economic dynamism. In the US, by contrast, the economy grew slowly during the 1950s, despite the subsidy of demand by public deficits and the growth of the wage share, and its brief takeoff during the first half of the 1960s was made possible largely by holding down the growth of wages and increasing productivity by means of intensifying labour.
>
> Where the autonomous growth of demand *did* operate powerfully to augment investment, growth and stability, it did so, paradoxically, less within national boundaries than across them. German and Japanese manufacturers derived much of their dynamism by means of appropriating large segments of the fast-growing world market from the US and UK, while beginning to invade the US domestic market…

Now for the downturn. "The origins of the long downturn in the advanced capitalist world are to be found in the US economy in the years after 1965. Between 1965 and 1973, the rates of profit in the manufacturing and private business sectors fell by 40.9 percent and 29.3 percent, respectively." Obviously, then, the fall in profitability that set off the long downturn cannot have been caused by the oil crisis of the 1970s, as is commonly thought. So what caused it? The answer, again, is not high wages or lower labor productivity growth but increased downward pressure on prices reflecting intensified international competition. The data Brenner presents against the idea that increased workers' power, especially as embodied in a decline in labor productivity growth, led to the decline in profitability are decisive. For example, in the manufacturing sector labor productivity growth actually increased between 1965 and 1973, when profitability started declining. Nor did *capital* productivity fall in this period. It's true that labor costs increased a little in manufacturing in these years, but the main problem was that companies were not able to raise prices sufficiently to wholly offset the growth in costs. The decisive fact, then, which needs explaining, is that they were prevented from raising prices enough.

The foundation of the explanation is that from the mid-1960s, world trade dramatically increased. Manufacturing exports shot up. One consequence of this was especially rapid international economic growth, at least in Germany, France, Italy, Japan, and the U.K. Another consequence, however, was newer, lower-cost producers based in such regions as Germany and Japan taking ever larger portions of markets that had previously been dominated by U.S. and U.K. producers. This was made possible,

for example, by exceptional rates of labor productivity growth in Japan. Also, high government deficits, from the Vietnam War and the Great Society programs, caused an outbreak of inflation in the U.S. after 1965. "The sharp relative increase in US costs of production [relative, that is, to those in Germany, Japan, etc.] stimulated a further acceleration of manufacturing investment overseas by US multinational corporations, accentuating the already established trend." In short, U.S. manufacturers started to lose markets abroad and at home. But even in the markets they retained, they were prevented from raising prices to as great an extent in proportion to costs as they had been accustomed to doing, "with unavoidable consequences for profitability."

The eruption of labor militancy that took place in the late 1960s and early 1970s was not so much a cause of declining profitability as an indirect result of it. In response to pressure from abroad, employers stepped up their offensive against labor from the mid-1960s on. Union bureaucracies initially didn't respond very vigorously, so the rank and file stepped into the breach with wildcat strikes and so on. Finally in the late 1960s union leaderships organized a major wave of strikes, with limited results, however.

As for Japan and the European G-7 economies, "the final stage of the postwar boom paralleled the onset of the profitability crisis in the US." They benefited, of course, from U.S. producers' problems, by taking increased shares of their markets. "The transition to international economic downturn can thus be said to have begun, somewhat paradoxically, at a point when most of the advanced capitalist world was in full expansion, at the height of its postwar dynamism." The U.S.'s diminished vitality was about to spill over into the other G-7 economies.

In the mid-1960s the U.S. government increased its already substantial spending in order to keep the economy moving. But it failed to stimulate a corresponding increase in domestic investment and supply because of firms' declining rates of profit, relatively high costs of production in international terms, and an overall deteriorating business climate. Instead, Keynesian stimulus measures—and major tax cuts in 1964 and 1965—called forth more rapidly rising inflation and imports. This was bad for America's international position and the dollar. The Federal Reserve tried to stop inflation in 1965 by tightening up credit, but then it reversed that policy (until the end of 1967) when a recession threatened. In 1968 the Fed again raised interest rates, "but by this time a major crisis was maturing." America's trade balances with Germany and Japan were falling rapidly, and "in 1971 the US experienced its first trade deficit of the twentieth century."

As all this was happening, "the money market inevitably placed renewed downward pressure on the dollar and upward pressure on the mark and yen" in the late 1960s. As speculators attacked the dollar, the Bretton Woods system, based on the

dollar's strength, threatened to collapse (and did so in the early 1970s). In the meantime, Germany's spectacular current account balance in 1968 led to huge speculative inflows, which swelled the money supply. Thus, Germany began to experience "imported inflation." Finally in 1969 the government succumbed to the inevitable and revalued the mark, which threatened the continued growth of German exports (due to the effective increase in their prices). Japan experienced the same inflationary pressures as Germany, but it tried to avoid revaluing its currency, "inviting a wave of inflation that would eventually dwarf that of Germany."

In 1968 and 1969 the U.S. government instituted a variety of deflationary measures that briefly stabilized the international monetary situation but caused the recession of 1970. Unwilling to accept the political and economic costs of a serious anti-inflationary policy, Nixon reversed it in 1970. America's exporting of inflation therefore resumed, as short-term speculators fled the dollar because of its low interest rates. Eventually "the pressures for a reordering of international rates of exchange became unbearable," and in 1971 the mark, yen, and other currencies were revalued against the dollar. But fixed exchange rates, as in the Bretton Woods system, were still used, and that couldn't last in light of the unstable monetary situation. Inflation continued to rise in the U.S. because of expansionary policies; finally in 1973 the advanced capitalist countries established floating exchange rates, definitely ending Bretton Woods. The upshot was that between 1969 and 1973, the German and Japanese currencies appreciated against the dollar 50 percent and 28.2 percent respectively. This, of course, was good for American exports because it made them and their costs of production relatively cheaper. "The reductions in US relative costs made possible by the devaluation of the dollar, along with the gains in capacity utilization secured with the recovery from recession, had a galvanizing effect on the US economy." Profit rates increased a little, etc. Germany and Japan, on the other hand, "now began to shoulder the burden of the world crisis of profitability."

German manufacturers had to accept lower prices on their exports in order to retain market share, even as labor militancy led to rising labor costs and so even lower profit rates. Japan's story is complex, but basically manufacturers ended up facing a similar situation to German ones. The growth of the world market had slowed, and Japanese producers faced intensified competition from abroad because of yen revaluation, etc. But ultimately it was the fact that so many manufacturers around the world were producing similar goods, leading to overproduction and "over-competition," that caused the downturn in the world economy.

Short summary of the long downturn:

The oil crisis of 1974-1975 exacerbated economic difficulties. The cost of oil rose everywhere, especially in Japan. "Since wages and technology did not immediately

adjust to the rise in energy costs, rates of profit fell further, and inflation accelerated. At this point, many governments had little choice but to put on the brakes, raising interest rates and limiting the supply of credit. A sharp deflation thus followed immediately upon the inflationary crisis, bringing about another step down in profitability and the greatest recession since the Depression of the 1930s." With investment growth, hence the growth of capital stock, sharply reduced, the growth of labor productivity naturally declined as well. And, "given the reductions in productivity growth and profitability, real wage growth was bound to be constrained and fell far more rapidly than did output per person. With the growth of both investment demand, especially in manufacturing, and consumer demand so much reduced—as an expression of the slowdown of the growth of the capital stock and of the growth of wages—the growth of output had to fall too; as it did, the manufacturing sector shed much labour, and unemployment increased precipitously. Between 1973 and 1995, the unemployment rate in the G-7 economies averaged 6.5 percent, more than double the average of 3.1 percent for the years 1960-73." The growth of international trade decreased too.

From the start, of course, employers and their governments tried to offset the fall in profitability at the expense of workers. "To reduce indirect labour costs, as well as to soften up labour resistance, governments across the advanced capitalist world launched severe austerity drives—tight credit to drive up unemployment and reduced social services to weaken workers' safety net." But this didn't restore profitability. Actually, for the economy outside manufacturing such measures did allow the maintenance of high profitability—which corroborates Brenner's thesis, because the non-manufacturing sector deals with non-tradables, so that international over-capacity and over-production cannot have a direct effect on that sector, while they can on the manufacturing sector.

The main problem, to repeat, was that manufacturers across the advanced capitalist world stubbornly refused to leave product lines that had become less profitable. Historically this is how problems of overproduction have been solved—by the collapse of unprofitable firms, the development of new lines, etc. That didn't happen here for many reasons I'll describe later. It's worth noting now, though, that in Germany, Japan, and other economies (but not the U.S.), "the problem of eliminating redundant productive forces from over-subscribed manufacturing lines was made all the more difficult to the degree that this entailed transferring means of production into the service sector." The reason is that levels and rates of productivity growth were much higher in manufacturing than in services, which means that if a transfer from the former sector to the latter were to take place without a loss of profitability, reductions in wage levels and wage growth would be necessary. But for various reasons it was hard for employers in many countries to reduce service-sector wages more than they had already been reduced. "One therefore witnesses [in Germany, Japan, and even the U.S.]

a striking shift into finance, insurance, and real estate, where productivity and profitability were evidently on the rise, but difficulties of profitable entry into service-sector lines where productivity was low, such as retail trade and hotel and restaurants." By contrast, in the U.S., where employers were able to reduce wages significantly, they had an easier time recovering profitability and reducing unemployment than their competitors elsewhere.

As I stated above, too, the tremendous expansion of debt played a large role in stabilizing the world economy but prolonging the downturn (by preventing a decisive "shakeout" of unproductive and redundant capital). "Keynesianism," that is, "made the downturn both milder and longer." After its experiment with monetarism in the early 1980s, "the Reagan administration undertook the greatest programme of Keynesian pump priming that the world had ever seen. Through its record budget deficits, the US federal government massively raised demand so as to bail out yet again not just the US, but also the Japanese and German, economies from the recession of 1979-82 and to keep the whole system turning over during the 1980s."

Now for more detail on the long downturn. In the 1970s, "because profitability failed to recover, the [government] subsidy to demand [through high budget deficits and so on] that kept the system turning over could not but bring about the same succession of developments as in the late 1960s and early 1970s: the build-up of increasing numbers of high-cost, low-profit firms that in the absence of the subsidy would have gone under; a reduction in the growth of output that could be obtained by any given increase in demand due to firms' reduced access to surpluses and correspondingly reduced ability to invest; the corresponding acceleration of inflation, as any given increase in demand brought a smaller response in terms of supply than previously when profit rates were higher; rising interest rates and tight credit policies to combat inflation; and, ultimately, a new cyclical downturn. Another round of the same sort of stop-and-go cycle that had issued in the recessions of 1971 and 1974-75 thus culminated in the recession of 1979-82 and testified to the persistence of the economy's underlying problems."

In the 1970s Japan's export growth continued but at the cost of a spectacular collapse of manufacturing profitability. Because of international competition (from new East Asian firms too) and yen revaluation, firms had to keep their prices relatively low, which meant lower profits. Which meant lower investment growth, etc. But labor productivity actually increased at a respectable rate because of organized labor's self-discipline and various measures employers used to reduce labor's cost and increase its commitment to work.

At the same time, Japanese industry was restructuring itself. Because of the oil crises that hit it particularly hard, as well as all the other factors I've mentioned, the economy moved away from (or, alternatively, rationalized) heavy, energy-intensive, and labor-intensive lines and into high value-added industries like cars and "mechatronics" lines (industries that combined electronics and machinery). This process of economic restructuring was coordinated largely by the state and consortia of private companies, and was helped enormously by firms' close relationships with banks (which gave them much better access to finance than their overseas rivals).

Nevertheless, despite all these positive developments, "the Japanese economy could achieve only a limited recovery in the years after the oil crisis. This was because its expansion became even more reliant than previously on the growth of manufacturing exports, in a period in which international over-capacity and over-production were increasing as a consequence of the sharp deceleration of world trade and in which Japan's own overseas sales were proving increasingly self-undermining because inextricably bound up with the build-up of Japanese external surpluses."

Near the end of the decade Japan and Germany experimented with Keynesianism at the behest of the U.S., but, again, this was partly counterproductive in allowing high-cost, low-profit firms to remain in manufacturing and in making it more difficult to control wage costs. It tended to result in inflation more than sizable expansion of the economy. Eventually powerful interests like bankers and multinational corporations grew tired of the U.S.'s inflationary Keynesian policies that weren't even doing much to restore profitability but caused instability in currency markets, and a switch to the opposite policy occurred. The order of the day was now austerity, to rein in inflation.

An obvious implication of Brenner's argument is that when an economy starts to go bad, Keynesian policies are exactly the opposite of what governments should enact. Either they should coordinate a transference of capital from unprofitable to profitable lines, or they should allow, indeed encourage, the economy to collapse into depression —at least if their goal is long-term recovery. (And *then*, later, the government could go Keynesian.) Presumably these are the only two ways to get rid of redundant, unproductive capital. Or no, maybe there's a third option: instead of the U.S.'s "military Keynesianism" in the 1980s or an effectively half-hearted Keynesianism, the government could launch a *massive* spending program, a complete mobilization of society's resources to build up infrastructure, construct new industries, stimulate and *direct* a titanic level of investment. With the half-hearted Keynesianism of, say, the Vietnam War, the main result is a rise in prices rather than a large rise in productive

investment because profit margins remain relatively low, not high enough to justify major new investment.

The course that the U.S. government chose in the 1980s was, first, effectively to encourage the destruction of unprofitable capital by restricting credit and government borrowing between 1979 and 1982, and then, second, to embark on a sustained program of military Keynesianism, which partially revived the economy. The problem with monetarism was the opposite one of Keynesianism: it indiscriminately reduced demand, such that, while it did encourage the elimination of unprofitable capital, it discouraged firms' entrance into new and more profitable lines. That is, it hit profitable and unprofitable capital equally. By reducing aggregate purchasing power, it set off a deflationary spiral that was hard to control. Thus, while helping to rationalize the U.S. economy through its setting in motion an extended process of "industrial shakeout," it triggered the worst recession since the 1930s, "pushing the U.S. economy in particular to the brink of collapse." The German and Japanese governments (and others) continued through the 1980s and beyond with tight credit and fiscal austerity (with a few major lapses) so as to reduce domestic costs and thereby increase exports, but the U.S. government went from monetarism to nearly the opposite extreme—in *fiscal* policy at least. (The Federal Reserve moderated its monetarism after the early 1980s.)

"The supply-side programme which accompanied monetarism in the US, highlighted by record tax cuts, did succeed in transferring enormous sums of money into the hands of capitalists and the rich from the pockets of almost everyone else. But it did not lead to the upsurge of investment and entrepreneurship expected by its advocates for the simple reason that, given the generally poor investment climate, tax reductions could not create the anticipated incentives. Yet, precisely because the tax cuts totally failed to vindicate their advocates' predictions that they would pay for themselves by bringing about higher growth and thus higher tax returns, they produced the highest federal deficits of all time. This was in a way fortunate, for major deficits were evidently necessary to bail out the US, and revive the rest of the world economy." But only partially, because the underlying problem of international over-capacity and over-production persisted, with the result that competition for (over-supplied) manufacturing markets continued to be a zero-sum game. The U.S. could gain only at the expense of its rivals and vice versa.

The combination of Reagan's (and others') Keynesianism with tax cuts and the Fed's monetarism actually exacerbated the underlying problem of reduced returns on investment by leading to record-high real interest rates. "This was because the rise in demand for credit coming from governments was very much amplified by that coming from corporations and workers, and was accompanied by the slowdown in the supply of credit that resulted from monetarist restrictiveness [in the Fed's supply of money,

which continued to follow monetarist thinking], as well as the reduced rates of savings that were the unavoidable result of low profitability and low wage growth."

In the first half of the 1980s, high real interest rates and resultant dollar appreciation "spelled disaster for broad sections of US manufacturing." Exports fell, imports rocketed, etc. The service sector, on the other hand, "exploded" because of its low wages and so on. As did financial speculation.

But the competitive advantage that the high dollar gave the U.S.'s economic rivals was bound eventually to come to an end as it had in the early 1970s because, in undermining U.S. production, further driving up the U.S.'s external deficit, and pushing down the dollar, the relative value of currencies would eventually be reversed. And so in the mid-1980s the dollar's exchange rate plummeted, which caused export growth in America and decline in Germany and Japan. Moreover, dollar devaluation effectively implied a fall in international demand.

To sum up the 1980s in the U.S.: on the basis of federal deficits, the economy did achieve a long peacetime expansion from 1982 on. Nevertheless, investment growth was low, productivity growth in the private business economy was very low (partly as a result of the slowness of investment growth), and, in general, despite talk of a "Reagan boom," the economy "showed less vitality than in the much-maligned 1970s, especially when one takes into account the two major waves of high oil prices that undermined growth in the 1970s and the collapse of oil prices that promoted growth in the later 1980s." This lack of vitality was also in spite of the unprecedented attack on labor, which of course helped business enormously.

By the way, I've often wondered in what sense high government deficits "crowd out" private investment (as economists like to say). The obvious answer is that they tend to cause higher interest rates (because they raise the demand for credit), which discourages investment. Also, government deficits mean that private investors are investing in government bonds instead of the economy. Of course these objections to deficits are stupid if the government itself is undertaking more productive investments than business is.

In the 1990s profitability in the American economy finally began to approach and then surpass its level in 1973, largely as a result of decades of slow or nonexistent real wage growth combined with high exports due to dollar devaluation. Investment and productivity didn't improve much at first, but the prospects were good. Meanwhile Clinton retreated from decades of Keynesianism by pursuing balanced budgets, as he had to in light of the political and economic environment. (This had the effect of exacerbating Germany and Japan's economic problems, since these—and other—countries had relied on U.S. deficits to sustain their anemic economic growth.) The Fed

continued to stick with its austere monetarist policies because growth by the mid-1990s was thought to be gaining "excessive momentum," despite the six-percent unemployment rate. The question, therefore, is why fiscal and monetary policy in these years was so austere even though the economy was growing (by 1996) at only a mild rate. The answer is that "a mild economic expansion was just what the political and economic establishment wanted." The U.S. economy that had emerged in the 1980s and 1990s was very different from in the 1970s and before:

> US capital had become profoundly dependent on close to zero real wage growth, as well as low inflation. Employers required the repression of real wage growth inside manufacturing to help counter intense competition from their leading international rivals; they required it outside of manufacturing so that they could increase their profit shares and profit rates, despite the snail-like pace of non-manufacturing productivity growth. US capitalists needed low price increases as well as low wage increases because they had profoundly increased their involvement in finance and in speculation on the stock market, and thereby had become exquisitely sensitive to rises in prices that would undercut their returns from lending or further push up their costs of borrowing for purposes of financial manipulation.

Brenner explains in detail how this new economy emerged, but much of what he says is an elaboration of what I've written above. "During the 1970s, it will be recalled, US manufacturing corporations, encouraged by a devalued dollar and sharply reduced wage growth, as well as declining real interest rates, had launched an impressive wave of investment aimed at restoring competitiveness and profitability. Their failure to bring about significant improvement in the rate of profit by the end of the 1970s must have done much to discourage the continuation of such a strategy. In any case, under the combined impact of the deep recession of 1979-82, the very high real interest rates which largely persisted throughout the decade and into the next, and a new, if temporary, rise of the dollar, US manufacturing corporations had little choice but to cut back and change their modus operandi if they wished to survive." Especially with the major increase in imports from the East Asian "tigers," manufacturing profitability in the U.S. fell (although profitability outside manufacturing didn't do so badly because of the non-manufacturing sector's relative isolation from international competition).

In addition to all this, stockholders in the 1980s secured radically increased dividend pay-outs (which had been cut back in the 1970s). And, encouraged by the deregulation of finance, labor's vulnerability, and tax breaks that ensured higher

returns on unearned income and capital gains, "financial manipulators borrowed heavily to purchase controlling interest in companies in expectation of wringing increased returns from them—especially by way of the stepped up exploitation of labour, the speeding up of depreciation and refusal to invest, the shedding of manpower, and downsizing in all forms." Thus, corporations deeply cut investment.

Manufacturing labor productivity did, however, improve significantly from 1979 on—not because of investment, which was low, but because of the removal from operation of outdated and inefficient plant and equipment (along with the workers who had manned it), as well as from the intensification of work. *Downsizing*, therefore, led to higher labor productivity, but so did technical advance—"secured, for example, by means of robotization and the application of computer-aided production and design." And so did American firms' adoption of Japanese methods of making labor input more intense, continuous, and effective. *Outsourcing* was important too, for it allowed employers to pay lower wages.

So, as I said above, all these things in combination with dollar devaluation after the mid-1980s *finally* led to a partial restoration of manufacturing profitability at the end of the 1980s and then even more in the middle and late 1990s. As a result, investment growth finally accelerated in the late 1990s, which "opened up the potential for a decisive US economic turnaround."

But remember, from 1979 the place of manufacturing employment in the economy shrank sharply, until in 1996 it was only 16 percent. At the same time, service employment rose. These trends weren't good for the economy because labor productivity growth was much steeper in manufacturing than in non-manufacturing. In fact, the latter's productivity growth was the lowest in U.S. history. Thus, "far from an expression of economic rejuvenation, the rapid net increase in the number of US jobs during the 1980s and first half of the 1990s, all of them outside manufacturing, was a manifestation of US economic decline." Why was productivity growth so low outside manufacturing? Because extremely low wages (and no pressure from foreign competition) ensured that employers had little incentive to adopt labor-saving technology. They continued to add jobs in low-productivity sectors like restaurant services and retail sales. Aggregate unemployment did, therefore, decrease, but this was not bad for business because of low rates of unionization and low wages. "The upshot has been a truly vicious circle, in which low wages have made for low labour productivity growth which has in turn rendered 'unrealistic' any significant growth of wages and thereby provided the basis for continued low productivity growth. So much for the Reagan-Bush-Clinton 'morning in America.'"

"The other side of capitalists' refusal to place much of their capital in production was their search for alternative ways to make money. With profitability down, interest rates up, and instability heightened, investors had increasing incentive to avoid the risks associated with longer-term placements of new plant and equipment. Still, to profit merely by buying cheap and selling dear is normally no simple task: for every gain there is an equivalent loss, for every winner a loser. Capitalists and the wealthy accumulated wealth with such success during the 1980s largely because the state intervened directly to place money in their hands—enabling them to profit from their own business failure through lucrative bailouts, offering them giant tax breaks which played no small part in the recovery of corporate balance sheets, and providing them with an unprecedented array of other *politically constituted* opportunities to get rich faster through fiscal, monetary, and deregulation policies—all at the expense of the great mass of the population." The pattern, he notes, was clearly established under the Carter administration.

The details of the wealthy's increasing wealth are pretty sordid. For example, major tax cuts in the 1980s benefited the rich directly, but in increasing the federal deficit they also benefited the rich indirectly, since those with great wealth did most of the lending to the federal government. Interest payments as a part of the federal budget almost doubled in the 1980s to 13.4 percent. These payments were covered by tax revenues largely from the working class. Thus, despite their low income and standards of living, workers effectively gave their money to the government so that it could then be given to the rich—in *many* different ways, of course, not only as interest payments.

Enough about America; let's look at Japan. I've already said a little about it. In the first half of the 1980s, Japanese money poured into the U.S. Treasury because of high interest rates; this meant that less money was available for domestic investment in Japan. Then the yen soared because of high current account surpluses (as stated above), exports fell, and a severe recession threatened. Luckily the Japanese government "launched a policy of extreme monetary ease," sharply reducing interest rates, which stimulated investment and "helped to force-feed a new boom, which lasted through 1990-91." What it was trying to do was to wean Japan off its reliance on exports, since this reliance always proved self-undermining in the long run. (High growth of exports led to high external surpluses, which led to a high yen, which made exports relatively more expensive, which caused a decline in exports.) For a few years the policy was successful, causing a boom in domestic investment (partly because low interest rates also stimulated consumption, i.e., demand, by giving people an incentive not to save—because of the low returns—but to spend).

While the yen's revaluation was bad for exports, it was good for foreign direct investment. As a result, Japanese foreign investment skyrocketed in the later 1980s. In many cases firms relocated production to the U.S., both to get around import barriers and to take advantage of the U.S.'s cheap labor. They also invested in the East Asian NICs (newly industrialized countries) and even increased their exports to this region. Etc. Despite all these positive developments, however, the profitability of Japan's private business economy simply could not withstand "the increase in costs entailed by the massive revaluation of the yen." With the onset of the U.S.'s recession in 1990 and the Japanese government's raising of interest rates to gain control over the prior bubble, Japan entered its worst recession of the postwar epoch. This "recession that began at the end of 1991 and continued into the second half of 1995 was, in part, a reaction to the bubble itself. After engaging for almost half a decade in the most massive accumulation of capital stock, inventories, and labour without succeeding in raising their rate of profit, Japanese manufacturers could not but, sooner or later, cut back compensatorily on the growth of new plant and equipment, inventories, employment, and wages. The reductions had to be that much more severe because so much of the previous spurt of capital accumulation had been financed through the accumulation of debt." So, with the government's turn to higher interest rates, firms had to impose across-the-board cuts. "The resulting, extended collapse of both investment and consumer demand was at the root of the recession."

Actually, the ultimate basis of the recession was the underlying structural problem of the economy's dependence on manufacturing exports together with the secularly rising yen (which rose in the 1990s too) and the consequent inability to restore manufacturing profitability (given international competition—i.e., overproduction "with respect to the prevailing rate of profit").

What about Germany? In the 1980s and 1990s it pursued "monetarism in the name of exports." Balanced budgets and relatively tight money—i.e., holding back the growth of domestic demand—"with the goal of keeping down costs and prices and intensifying competitive pressure on domestic producers so as to spur rationalization and improvement, in the interest of promoting the growth of exports and thereby investment." This policy did succeed in reducing costs of production, such as labor, partly through downsizing, getting rid of inefficient capital and its workforce. Also holding back the growth of wages, etc. The growth of exports did accelerate, but not enough to reduce high unemployment in the late 1980s or to revivify the economy, "for the simple reason that the expansion of exports could not stimulate the required major increase in the accumulation of capital." In the absence of such an increase, labor productivity growth continued to stagnate.

As usual, a major problem with Germany's export-based economic growth was that insofar as it worked, it undermined itself. German current account surpluses led to an appreciation of the mark in the late 1980s, which reduced the international competitiveness of its exports. Manufacturing profitability therefore remained low. Firms dramatically increased their investments *outside* Germany because there were so few opportunities for profitable investment domestically. –Incidentally, as usual, *non*-manufacturing profitability stayed relatively high because of its insulation from international competition.

By the way, it seems that monetarist austerity tends to undermine the positive effects it can have on the profit rate (by reducing costs) in that it leads to higher real interest rates, which undercut gains in profitability. Also, again, monetarism is partly misguided in that, while encouraging the destruction of unproductive, unprofitable capital, it discourages the introduction of capital into new, potentially profitable lines. In Germany, monetarism led to an average of 8.5 percent unemployment between 1982 and 1990.

After a brief boom between 1988 and 1991 due to capitalist governments' expansionary policies in response to the stock market crash of October 1987, the German government cut spending, raised taxes, and "initiated an extended period of high interest rates to ensure long-term price stability." The result: an undercutting of growth in Europe, and an appreciation of the mark. These and other factors caused a severe recession between 1991 and 1995. Even after the recession, the manufacturing sector continued to shed labor and have very low investment domestically. In 1997 unemployment in West Germany was close to 10 percent.

In the last chapter (before the Afterword written in 2005), Brenner considers and refutes mainstream arguments given in the late 1990s that the U.S. and maybe the world had finally entered a new and long-term boom. For example, cheerleaders for the American economy argued that low rates of price increase and low unemployment were clear indicators of economic vitality. Brenner points out, first, that "even contemporary economic orthodoxy has failed to establish that inflation rates of up to 8 percent have *any* negative impact on the economy's vitality." Inflation isn't a terrible thing if it's kept below 8 percent. Indeed, "the grand crusade to control inflation" in the 1990s was very costly to most people, as monetarism always or almost always is, benefiting only the owners and lenders of capital.

Actually, the low rates of inflation and unemployment were simply the results of the extraordinarily slow growth of both demand and wage costs. "Nor is the slow growth of aggregate demand a mystery; it is the direct expression of the slow growth of investment demand, arising from low profit rates and secularly high real interest rates,

the stagnation of consumer demand resulting from the long-term stagnation of wages, and the collapse of governmental demand stemming from the sharp turn to budget balancing under Clinton."

Another good point: "Most indicative of the real condition of the US economy has not been its ability to control prices, but its dependence on controlling the price of labour, its *incapacity* to accommodate virtually any real wage growth."

Despite all this, it's true that by 1997 the economy's profit rate had finally returned to its level in the late 1960s. Even the manufacturing sector's profitability was high. In the mid-'90s manufacturing investment growth accelerated, as did productivity growth and export growth. These trends, naturally, were based primarily on long-term wage repression, dollar devaluation, and "rationalization [of manufacturing] and technical change." But in 1997 real wages rose noticeably for the first time in five years, though not enough to put a squeeze on profits.

So the U.S. economy seemed to be doing pretty well. But in order for the long downturn to be transcended, a *system-wide* recovery of profitability would have to take place. It didn't. Japan and Germany were in almost as bad a condition as ever; U.S. gains in exports were made at their expense, because of their appreciated currencies. – Remember how important exports had become to all these countries by the 1990s. Domestic demand had contracted in the advanced capitalist countries (which means that the world market had contracted) because of semi-monetarist policies intended to slow direct and indirect wage growth and weed out unprofitable capital. Had monetarism worked the way it was supposed to, by eventually stimulating a surge of new investment by surviving firms, the market would not have contracted but expanded. But governments and corporations weren't willing to tolerate recessions severe enough to get the job done (i.e. to reduce wages sufficiently, kill enough redundant capital, etc.), instead relying on various forms of credit and Reagan's military Keynesianism to prop up the world market—policies that, because of continued monetary restrictions, caused a sharp rise in real interest rates, discouraging investment. The upshot was that a system-wide investment boom never materialized; instead, there was declining growth of aggregate demand that exacerbated manufacturing over-capacity and over-production, and sharpened the tendency of international trade to take a "zero-sum" character. One country tended to gain at the expense of another.

Brenner sketches an optimistic scenario for the world economy, according to which the U.S. boom in the late 1990s triggers export expansions in Europe and Japan (as it in fact did a little) such that the classic Smithian scenario is realized of "mutually self-reinforcing growth through [international] specialization and the gains from trade."

Complementarity would override competition. Europe and Japan would export to the U.S., which would export other goods to them, etc. He finds this possibility unlikely, however. "The fundamental point is the obverse of the Smithian hypothesis just referred to—that since virtually all of the world's leading economies are seeking to emerge from their difficulties through major, simultaneous increases in their reliance on the world market, based on still another and deeper phase of wage repression and macroeconomic austerity, the inevitable flood of exports is more likely to issue in redundancy of output, intensified competition, and over-supplied markets than in the mutual gains from trade."

One piece of evidence for the latter scenario is that the 1995 currency accords that raised the value of the dollar in order to prevent Japan's economic collapse had by the late '90s caused an erosion of the U.S.'s decade-long export boom. But the resultant increase in exports from Germany and Japan did not catalyze economy-wide expansions. In Germany, the reason is that the cost-cutting and monetary austerity that made possible a new export boom shrank domestic demand. In Japan, the government for some reason raised indirect taxes even as the currency devaluation was failing to secure complete economic recovery, with the result that a new and severe recession arrived. It was temporarily alleviated in 1998 by major fiscal stimulus.

Meanwhile, the other economies of East Asia descended into crisis. They had benefited from the yen's high value by exporting to markets previously held by Japanese producers—because the NICs' currencies were pegged to the dollar, so that the dollar's devaluation (in relation to the yen, etc.) from the mid-1980s until the mid-1990s helped them. Japanese multinationals were also investing in these countries because of their export boom. But then the yen was devalued in 1995, and things went downhill for the NICs. They "suffered sharp reductions in their export growth and/or profits, especially under the impact of intensified Japanese, as well as Chinese, competition…" When it became clear that their future wasn't bright, "Western and Japanese banks rushed to withdraw their mostly short-term capital, precipitating a run on the money markets." Foreign lenders withdrew their money in a panic, and eventually the affected currencies were devalued—which worsened the crisis by making it harder for manufacturers to repay their huge loans.

"It was here that the IMF stepped in. The IMF might have attempted to get the international banks to agree formally 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 many Asian firms was the insufficient international demand for their goods, not the inefficiency of their production, let alone their dependence upon (nonexistent) government deficit spending. Some firms would no doubt have had to be trimmed

back; others would have had to go under. But the whole regional economy did not have to go down. As it was, the IMF, mainly concerned that European, US, and Japanese banks be repaid in full, demanded, in Hoover-like fashion, that credit be tightened and austerity imposed, radically exacerbating the debt crisis and ensuring a devastating depression." (The IMF also took the opportunity "to break down and open up the East Asian statist and organized capitalisms, notably in Korea." Naomi Klein discusses that in *The Shock Doctrine*.)

Brenner predicts (in 1998) that among the consequences will be cheaper exports from East Asia (because of the currency devaluation) and a shrinking of the world market because of the depression-induced shrinking of demand in the affected countries. In other words: the intensification of international competition and over-production.

At the same time, China was becoming a growing presence on the world market, even as its consumer demand was growing slowly (which is not good).

Japan, by the way, was itself severely damaged by the East Asian crisis because, among other reasons, East Asia was a huge market for its goods. An indirect consequence was that Japan's aggregate demand shrank.

The 2005 Afterword of Brenner's book reviews the history and updates it.

"The turn by the Federal Reserve to monetarist tight credit at the start of the 1980s was aimed, in the first instance, to force up unemployment so as to further reduce wage pressure and break the back of inflation. But it was also intended, with the help of big tax breaks for the corporations and a major dose of financial deregulation, to detonate a major restructuring of the US economy—by eliminating the huge overhang of high-cost low-profit means of production that continued to hold down manufacturing profit rates, by dealing a death blow to unions so as to make increases in real earnings ever more difficult, and by opening the way for a reallocation of means of production out of industry into financial services. In fact, the cataclysms and shifts that were detonated by the Volker quake did set the US economy on a new course—toward manufacturing revival, the expansion and consolidation of a low-wage economy outside of manufacturing, and the dramatic ascent of finance." The "gargantuan shakeout" caused by the Volker recession "established the necessary condition for the revival of the manufacturing profit rate and thereby that of the private economy as a whole"; as a result, between 1985 and 1995, U.S. manufacturers were able to achieve a dramatic turnaround. Very important to this turnaround was the Plaza Accord of 1985, in which the G-5 powers, "acting in response to the devastation of US manufacturing capacity wreaked by record high real interest rates and the rocketing currency, detonated a decade-long plunge of the dollar." I've reviewed all this above.

Between 1989 and 1993 the Fed brought "the real cost of short-term borrowing in the US close to zero"; "the real cost of long-term borrowing had, meanwhile, continued its long-term slide." Under these conditions, the U.S. manufacturing sector "was finally ready to shake off its lethargy. Manufacturing investment, output, and exports all suddenly thrust forward, initiating an extended acceleration and providing a major stimulus to the rest of the economy."

Unfortunately the U.S. had to deal with a world economy, which wasn't doing very well. Here's a good summary:

> As a consequence of the continuous, precipitous fall in profit rates that resulted from the worsening of global over-capacity and intensifying international competition between the later 1960s and early 1980s, there emerged, in classical fashion, a dual problem of weakening aggregate demand and weakening productivity growth, which tended to be self-perpetuating. In order to restore profit rates, firms across the advanced capitalist economy moved immediately and decisively to reduce the growth of real wages, while government cut back sharply on the increase of social spending. Because, as an expression of reduced profitability, firms could secure only declining surpluses for any given increase in their capital stock, they were simultaneously obliged to reduce the growth of investment, as well as employment. As a result, the growth of consumption, investment, and government demand were all forced down, leading to the reduced growth of purchasing power economy-wide. Meanwhile, because firms, in the face of declining profits and prospects, neither wished to nor could expand their plant, equipment, and software as rapidly as before, a decline in the rate of growth of productivity naturally resulted. Of course, the slower growth of productivity further threatened profits, leading firms to exert further downward pressure on wages and, thereby, aggregate demand… Slower growth of aggregate demand itself undermined profit rates further and firms responded by reducing capital accumulation and wage growth even more, leading to the further reduction of productivity and aggregate demand growth, and, in turn, profitability…a self-sustaining, indeed self-intensifying, process. Between the late 1960s and 1995, as profit rates fell and failed to recover on a system-wide basis, private investment (capital stock) for the US, Japan, Germany, the eleven members of the EU taken together, and the G-7 grew ever more slowly, business cycle by business cycle, as also did

productivity, employment, and real wages, as well as private consumption and government demand, along with GDP.

Because of the ever-increasing downward pressure on the growth of productivity and aggregate demand, "the advanced capitalist economies were obliged to rely, as they had already begun to do in the middle to late 1960s, on ever larger government deficits to keep them expanding. From the mid-1970s, US federal deficits were responsible for pulling the world economy out of every cyclical downturn." Only with Clinton's "epoch-making" turn to budget-balancing and Europe's macroeconomic tightening in the run-up to the Maastricht treaty did the advanced capitalist countries "shift in earnest toward governance by way of the free market." Private-sector initiative became more important than ever. But in a situation of low aggregate demand, the way to restore profitability was not to increase investment and employment but to downsize and suppress wage growth. This "made for the weakening of purchasing power system-wide and deepening recession in much of the world economy between 1991 and 1995."

In 1995 the "reverse Plaza Accord" happened, i.e., the revaluation of the dollar and devaluation of the yen and mark. This was a reversal of policy for the Clinton administration (though probably an inevitable one), because it meant a reduction of manufacturing competitiveness. The new economic trajectory was "based on cheap imports, rising asset prices, and the influx of foreign money to buy US Treasuries, corporate bonds, and corporate equities" (because they were worth more now, given the higher value of the dollar). In broad terms, what the Clinton administration was doing was embracing the political economy of the Reagan administration. "As in the first half of the 1980s, financiers would be favoured not just by low inflation enforced by inexpensive commodities from overseas, but by asset prices that would be driven up in international terms with the value of the dollar. Businesses that relied on imports, either for inputs into production or to sell directly, not least wholesalers and retailers, would also stand to benefit…"

"The reverse Plaza Accord of 1995 turned out to be the turning point for the US economic expansion of the 1990s and thereby the world economy, as it both set off the 'New Economy' boom and ensured that it would have feet of clay. The stepped-up purchases of US Treasury instruments by foreign governments drove down long-term interest rates, even as the Federal Reserve simultaneously reduced the short-term cost of borrowing (to stabilize the economy in the wake of the Mexican peso crisis). The stepped-up purchases of dollars that these purchases required drove up the dollar's exchange rate against the yen and the mark. Taken together, these two trends—toward cheap credit and an expensive dollar—would persist through the end of the decade and shape the path of economic development on a global scale." As we saw, among the

consequences was a decline in the U.S. manufacturing profit rate and a decline in East Asian manufacturing profit rates leading to financial crisis. Also, consequences included "the greatest stock market bubble in American history; an accelerating economic expansion driven by the wealth effect of rocketing equity values; and a radical worsening of already existing manufacturing over-capacity, which resulted from a massive wave of mis-investment in high-tech industries set off by the bubble in New Economy equities."

After 1997 the manufacturing profit rate declined precipitously, "depriving the economic expansion of the 1990s of what had hitherto been its main objective foundation." The expansion actually speeded up because of the spectacular take-off of the stock market—but this was a classic bubble, since corporate profits *declined* between 1997 and 2000. Again, a major reason for the rapid increase in equity prices—an increase that wasn't justified by corporate profits—was the easing of credit brought about by the reverse Plaza Accord.

Alan Greenspan's Federal Reserve did its part to encourage the stock market bubble. After the reverse Plaza Accord and Clinton's shrinking federal deficits—both bad for investment (in the latter case because federal deficits had boosted aggregate demand)—Greenspan evidently decided he had to do something to keep the U.S.'s expansion going. So he turned to the equity markets and their wealth effect to stimulate demand. "Indeed, the strategy that he evolved during the second half of the 1990s—and has continued to implement ever since [up to 2007 at least]—might usefully be called 'stock market, or asset-price, Keynesianism.' In traditional Keynesian policy, demand is 'subsidized' by means of the federal government's incurring of rising *public* deficits so as to spend more than it takes in taxes. By contrast, in Greenspan's version, demand is increased by means of corporations and wealthy households taking on rising *private* deficits so as to spend more than they make, encouraged to do so by the increased paper wealth that they effortlessly accrue by virtue of the appreciation of the value of their stocks, or other assets." Thus, Greenspan kept equities rising by means of ever-easier credit: between 1995 and the middle of 1999 he failed to raise interest rates except once in 1997. His purpose, again, was to keep the economic expansion going by compensating for insufficient demand in the "real" economy.

(But surely—this is me talking, not Brenner—low interest rates are good not only for stock market investment but more substantive investment too. Greenspan kept interest rates low because he wasn't worried about inflation anymore, since the reverse Plaza Accord, the decimated labor movement, and low federal deficits had killed off inflation. His real concern, as Brenner says, was to keep the economy going; and obviously a good way to do that is to keep interest rates low. For all kinds of investment, not only for equity markets.)

Between 1995 and 2000, "profits became increasingly hard to come by." Nevertheless, "corporations were able to fund stepped-up capital accumulation with consummate ease on the basis of runaway stock values that bloated market capitalization and thus apparent collateral beyond recognition." Borrowing increased too: "by the end of the decade, they were using borrowing to fund capital accumulation at the highest rates in history."

Households—especially the top 20 percent of them in terms of income (which owned 95 percent of all financial assets)—"also treated the rapid rise in equity prices as an opportunity for radically stepped-up borrowing and, on that basis, spending… As the flip side of the coin, they felt free to sharply reduce their rate of savings as a proportion of consumption, so as to raise their rate of spending… As one pundit put it, the boom of the later 1990s was the first in US history to be heavily driven by yuppie expenditures."

In the second half of the 1990s, "non-financial corporations allocated as much of the huge sum that they borrowed to buying shares as to accumulating capital… Through share repurchases funded by borrowing, corporations avoided the tedious process of creating shareholder value through actually producing goods and services at a profit, and directly drove up the price of their own equities for the benefit of their stockholders, as well as their corporate executives who were heavily remunerated with stock options. Higher equity values made for still more collateral, further borrowing, greater stock purchases, and so forth. The same sort of process would soon be at work once again in the escalation of housing prices." The New Economy boom was underpinned in this way by the wealth effect of rising equity prices on both businesses and households.

Rising equity prices accounted for between one-quarter and one-third of the increase in GDP between 1995 and 2000. And one-third of the increase in consumption.

At the same time, retail trade and wholesale trade did very well due to the consumer spending spree and cheap imports (a consequence of dollar revaluation). So did the FIRE sector of the economy. The construction industry too, benefiting from an "astonishing, seemingly unending, increase in the demand for homes," enjoyed what would turn out to be a decade-long boom. And with the abolition of Glass-Steagall, huge conglomerates that combined commercial banking, investment banking, and insurance emerged, such as Citicorp and J.P. Morgan Chase. In 2000, the profits of the financial sector amounted to almost 40 percent of total corporate profits.

"The years between 1995 and 1997 constituted a brief era of overlap and transition, between the extended period of manufacturing-led profitability revival culminating in economy-wide revitalization between 1993 and 1997 and the period of

stock-market-driven expansion leading to New Economy boom and profitability crisis between 1995 and 2000. Due to the lagged effect of the revaluation of the dollar, the recovery of manufacturing profitability had not yet ceased to impart its momentum to the economy. The wealth effect of the equity price boom was already, moreover, providing its own impetus. As a consequence, the economy displayed a vitality not seen in decades."

But then things went bad in East Asia, as we've seen. "As the rising dollar, accompanied by easy credit, enhanced US asset prices and thereby US economic growth from 1995, while shifting the weight of international over-capacity and reduced profitability from Japan and Germany to the US, similar forces brought about similar effects and a similar pattern in the economies of East Asia at the very same time, setting off a chain reaction of crisis that would ultimately engulf the US itself." Stock prices rose in East Asia (excluding Japan) while profit rates declined (because of revalued currencies and the consequent reduction in earnings from exports). "The growing divergence between falling profits and rising asset prices was unsustainable. As export remittances fell sharply, East Asian producers found it ever more difficult to repay loans." From the beginning of 1997, financial-industrial conglomerates in South Korea started to go bankrupt. "In expectation that loans would henceforth be more difficult to collect, funds began to quit the region, and with ever greater speed. As a consequence, asset prices began to crumble, which accelerated the outflow of funds and soon made for downward pressure on the local currencies. But devaluation only raised the dollar value of foreign debts in terms of the local currencies, making them that much more difficult to repay. Central banks raised short-term interest rates to stem the exodus of capital and prevent currencies from collapsing. But this caused financial institutions, which depended on borrowing from central banks, to go bankrupt, leading to the collapse of asset prices and the panicked flight of capital."

The crisis got worse in 1998. Currencies collapsed and the price of East Asian goods fell with them, "placing great pressure, direct and indirect, on the rest of the world economy" (presumably because of a decline in exports and/or a necessary reduction in their prices in order to compete with exports from East Asia, and a resultant loss in profits). "During the summer of 1998, the East Asian crisis spilled over into the less-developed countries. In August, the Russian government defaulted on its debt. The Brazilian economy started to melt down shortly thereafter…"

Page 302 nicely summarizes the reasons for Japan's stagnation and recession in the 1990s. I'll just say that the East Asian crisis hurt Japan too because that region was the main market for its exports. It collapsed into recession again, which further crippled East Asia and thereby boomeranged back onto Japan.

The annual increase in U.S. exports dropped virtually to zero in 1998. Other bad things happened too, so the Fed stepped in to bail out a hedge fund, lower interest rates, etc., with the result that markets were not only rescued but "sent into orbit." The new U.S. expansion "pulled the rest of the world from its recession and motivated a new global expansion, most especially in East Asia." U.S. demand was huge, and by 2000 even Western Europe had emerged from stagnation, "driven by its German dynamo." The U.S.'s exports could not remotely compete with its imports (partly because of the currency revaluation of 1995), so trade and current account deficits skyrocketed. "These external deficits brought with them enormous downward pressure on manufacturing profits, making a crisis for the manufacturing sector unavoidable."

"In the end, there was no escaping the fact that the explosion of investment and consumption that drove the last phase of the US expansion—as well as the major uptick in productivity growth to which it gave rise—was heavily dependent upon a historic increase in borrowing, which was itself made possible by a record equity price run-up that was powered by speculation in defiance of actual corporate returns." There was a titanic misallocation of funds into high-tech paper assets, and a consequent misdirection of new plant, equipment, and software into over-subscribed manufacturing and related lines, especially information technology. This was all largely a result of the deregulated financial sector's necessity of chasing short-term profits because that's what shareholders *et al* wanted. "As equity prices began to rise strongly from 1995-1996, fund managers were thus under heavy pressure to buy, even if, in light of the growing gap between stock prices and profits, they doubted the long-term viability of their purchases." Their competitors were doing the same thing, so if in the end the assets they'd purchased went sour (as they did), they wouldn't be held responsible. The Fed's behavior contributed to all this by reassuring investors.

Between 1997 and 2000, total corporate profits after taxes *fell* by 20 percent even as the index of the NYSE rose by 50 percent.

"From July 2000, ever-worsening earnings reported by corporations precipitated a stock-market collapse and, in turn, a sharp cyclical downturn, both by reversing the wealth effect and by revealing the mass of redundant productive capacity and the mountain of corporate indebtedness that constituted the dual legacy of the bubble-driven boom." Firms found it harder to get loans—and in many cases they didn't even want to, being overburdened by debt already. With loans and profits harder to come by, the growth of jobs and new plant and equipment was cut back, undercutting both investment and consumer demand and triggering a self-sustaining downward spiral. "The crisis of profitability had, in classical fashion, brought about a crisis of aggregate demand."

> The rest of the world followed the US downward. Just as the stock market's last upward thrust had rescued not only the US but also the world economy as a whole from the international financial crisis of 1997-98, setting off a short-lived hyper-boom, the collapse of US equity prices and investment reversed the process. As the economy rapidly lost energy, US imports plunged, with the result that the economies of Japan, Europe and East Asia lost steam as fast as the US, while the developing world, notably Latin America, was, after a brief honeymoon, projected back into crisis. A mutually reinforcing international recessionary process was thus unleashed, rendered all the more problematic by the degree to which the rest of the world had, over the previous two decades, in the face of stagnating domestic demand, oriented their economies to exports—and thus perforce to the US domestic market. As the rest of the world, deprived of its US motor, sank ever further into recession, the US could look only to itself to launch an economic recovery upon which most of the global economy depended.

The center of the storm was in the manufacturing sector, especially in high-technology lines. Because of their immense over-capacity, capacity utilization plummeted. In the year following July 2000, 4200 high-tech companies lost more money than *all* the profits they had realized during the five-year boom of 1995 to 2000. "As one economist wryly noted, 'What [this fact] means is that, with the benefit of hindsight, the later 1990s never happened.' So much for the New Economy boom."

Outside of manufacturing, the economy actually did pretty well during the recession, because the non-manufacturing sector wasn't plagued by systemic over-capacity or intensifying international competition. Critical in the long run was its ability to take advantage of the recession to reduce the growth of real wages. But it was also able to raise prices, unlike manufacturers.

Nevertheless, because of the shock to manufacturing, the growth of GDP, investment, and exports declined faster than in any other twelve-month period since 1945. So the Fed intervened and lowered the cost of borrowing so much that the real Federal Funds rate was *below zero* for three full years. This didn't help much. "Vastly oversupplied with means of production and overburdened by debt, corporations had little incentive to increase hiring or step up the purchase of plant, equipment, and software…no matter how far interest rates came down." Instead, they eliminated millions of jobs.

Nor were households able to increase their borrowing and thereby consumption (and stimulate the economy that way), because jobs were disappearing and wage

growth was falling. But the Fed was forced to rely on them anyway because its measures were having little influence on private businesses. So it turned again to "asset-price Keynesianism." This time, though, instead of pumping up corporate equities to spur corporate borrowing and investment as well as household borrowing and consumption, it had to do what it could to "force down mortgage rates and inflate the value of residential housing so as to facilitate stepped up household borrowing and, in that way, amplify personal consumption. Thanks in large part to the Fed's actions, long-term borrowing costs did fall significantly and housing prices did rise precipitously [in *real* terms]… These changes together laid the basis for the cyclical upturn."

At the same time, Bush substantially increased military spending, which did a little to help the economy stay afloat, and pushed through enormous tax cuts for the rich, which didn't help much because it only encouraged them to buy financial assets and not to raise their consumption. As a result, "the economy would have to continue to rely mainly, as it had been doing since the later 1990s, on asset-price Keynesianism."

"Households did assume the vanguard role assigned to them. Between 2000 and 2004, they took advantage of rocketing housing values and falling interest rates to raise their annual borrowing as a percentage of personal disposable income to an unheard-of 11.8 percent." Personal consumption expenditures thus accounted for *all* the growth of GDP from 2000 to 2004.

As the real economy outside manufacturing was doing pretty well because of households' consumption, the financial sector was doing great too. The housing market simply replaced the equity market. "…Like the stock-market bubble, the real-estate bubble fed upon itself, and increasingly so, with increased borrowing facilitated by rising paper wealth and easy credit making for greater housing demand and still higher real-estate values, which provided the collateral for still more borrowing making for more demand and higher housing prices, and so on." What set the whole process in motion apparently was the rise in asset values of houses, which allowed homeowners to borrow more and so spend more, etc.

"On the basis of the huge on-paper appreciation of the value of their residences, households were able to withdraw dramatically increased funds from the home equity —by selling their houses at prices surpassing their mortgage debt, buying new ones, and still having cash left over; by refinancing and increasing the size of their existing mortgages, extracting cash in the process; and by taking out new home equity loans in the form either of second mortgages or lines of credit." Because of housing's contribution, the average annual growth of GDP between 2000 and 2005 was 2.4 percent instead of 1.7 percent.

In his wisdom, Brenner remarks that "nevertheless, it is hard to see how housing's huge subsidy to the economic expansion can long sustain itself." After 2008, we know he was right.

Between 2000 and 2005, U.S. external deficits kept the world economy going, as always. Its imports greatly exceeded its exports, and its share of the world market in manufactures shrank to its lowest level of the postwar epoch (9 percent). This happened despite the dollar's decline in value. In large part this was due to the annual growth of China's exports (over 25 percent). The turning point in the expansion of China's trade occurred in the first half of the 1990s, "when the government opened the way for banks to impose a major tightening of credit…while itself implementing a major devaluation of the renminbi."

Unlike Japan and the NICs in their periods of development, China did not "tightly control foreign direct investment in statist and mercantilist fashion." Instead, it welcomed a huge influx of foreign-owned companies and foreign investment. "By 2004-05, foreign firms had come to account for no less than one third of Chinese manufacturing output and 55-60 percent of its exports." Brenner goes on about China for a few pages, but it's mostly Greek to me. In the book's final pages he gives more reasons for pessimism about the world economy, such as the slow growth of investment and job creation resulting from not-high-enough profit rates. –Of course superficial commentators will say that's absurd, that recent corporate profits have reached celestial levels, but Brenner could retort that the West's recovery from 2008 has been basically a jobless one. Corporate profits have resulted from laying off millions of workers and keeping wages stagnant—which is not the sign of a healthy and dynamic economy. Moreover, about 30 percent of these profits have been made by the financial sector, not through investment in the real economy. We're clearly in for a long era of stagnation and crisis—arising out of global over-competition, overproduction, and low aggregate demand sustained only by colossal debt. (See, e.g., the 2009 Introduction and the second chapter of Robert McElvaine's *The Great Depression* for obvious parallels between the present and the political economy that caused the 1930s.)