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The Long Downturn

The Roots of the Crisis in the Real Economy

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The administration has made economic policy as if it believes that once financial institutions and financial markets are restored, credit will start flowing and growth will follow. This would be in keeping with its analysis of our economic problems, but ignores the deeper roots of the crisis, which lay not so much in the incapacity of financial institutions to lend, as in the overcapacity that has long gripped the global economy.

The crisis unfolding in the world economy is, without close comparison, the most devastating since the Great Depression, and could conceivably come to approach it in severity. This is because it manifests huge unresolved problems in the real economy that have been literally papered over by debt for decades, as well as a financial crunch of a depth hitherto unseen in the postwar epoch. It is the mutually reinforcing interaction between weakening investment and employment and the disintegration of the financial sector that has made the downward slide so intractable for policymakers, and its potential for catastrophe so evident.

Analysts of the crisis naturally took the meltdown in banking and the securities markets as their point of departure. Wall Street was the initial site of the implosion, and its ensuing collapse dealt a devastating blow to the global system. But from Federal Reserve Chairman Ben Bernanke and Treasury Secretaries Hank Paulson and Timothy Geithner on down, economists have, with few exceptions, denied the need to look beyond the financial sector itself (and perhaps international financial imbalances) to uncover the roots of the disaster. They have insisted that, until the financial crisis began to affect it, the real economy was strong, the so-called "fundamentals" beyond question. As Paulson told National Public Radio in March 2008, "we had six years of very solid economic growth" before the subprime crisis hit, and the Bank of International Settlements echoed his conclusion the following June.

In September-October 2008, as financial markets disintegrated and Paulson proposed his mammoth bailout of the banks, more than one hundred academic economists, many from Harvard, Chicago, and MIT and including a number of Nobel Prize winners, warned Congress in an open letter: "For all their recent troubles, America's dynamic and innovative private capital markets have brought the nation unparalleled prosperity. Fundamentally weakening those markets [through government incursions] in order to calm short-run disruptions is desperately short-sighted." That remains the consensus, and even now only a minority of professional economists openly challenges it, even if a large number, like Barack Obama's chief policymakers, probably accept the necessity of what they see as emergency state intrusions. In the words of Obama's economic czar Larry

Summers, "The notion that the market economy is self-stabilizing is usually right, but it is wrong a few times a century and this is one of those times."

The implication for policy is straightforward: Since an ostensible freeing up of markets, particularly financial markets, from government intervention is supposed to have brought renewed vitality to the U.S. economy, ushering in a new era of technological advance, while a once-in-a-lifetime crash of those markets is viewed as the main source of the current crisis, the rescue and revitalization of the same financial arrangements and mega-banks that were implicated in the collapse, plus a cosmetic dose of regulation, is the requirement for transcending the crisis and returning to economic dynamism. Today's much-ballyhooed turn to state intervention and Keynesian remedies is thus understood as temporary, its goal nothing more nor less than the restoration of the finance-centered free market order, the pre-crisis status quo. Nevertheless, this prescription will not return the economy to health, since the analysis-cum-diagnosis could hardly be more misleading.

Far from achieving unparalleled prosperity thanks to the freeing up of capital and commodity markets that has taken place over the last quarter century, the advanced economies have performed decreasingly well since the end of the long postwar boom around 1973, and their performance during the years from 2001 to 2007 was the worst for any comparable period in the last half a century. **(See Table 1 below.)**

As a consequence, rather than declaring its independence from state interference, global capitalism has been obliged to rely on ever larger, more dramatic, and increasingly reckless government interventions to keep the economy turning over—rising state-sponsored borrowing to overcome the chronic insufficiency of aggregate demand, plus an endless succession of bailouts of the financial sector to rescue it from one major crisis after another—from the Third World debt crisis of the early 1980s to the savings and loan, commercial real estate, and corporate debt crises of the late 1980s, to the commercial banking and Mexican peso crises of the early-mid 1990s, to the equity market crash of the early 2000s. To interpret the plunge of the world economy simply in terms of the meltdown of the financial sector and its effects is thus to understand an earthquake by investigating the pattern of destruction around its epicenter, while ignoring the long term shifts and devastating slides of tectonic plates below. Anything but a bolt from the blue, the current crisis is rooted in the steadily declining vitality of the advanced capitalist economies over more than three decades—a long downturn which finds its fundamental source in the decline and stubborn failure to recover of the average rate of profit in the private sector as a whole.

What was behind the fall in the rate of return? Its main, though not its only, cause has been a persistent tendency to overcapacity in global manufacturing industries, which originated with the intensification of international competition between the mid-1960s and mid-1970s. Overcapacity emerged, was reproduced, and has been further deepened by way of an extended process of uneven development, in which a succession of newly-emerging manufacturing powers has been able to realize the potential advantages of coming late—Germany, Japan, the Northeast Asian Newly Industrialized Countries (NICs) and the Southeast Asian Tigers, and, finally, the Chinese behemoth. These countries deployed interventionist states and highly organized capitalisms to subordinate the financial sector to the needs of domestic production, limit household consumption, and enforce high rates of household saving in the interest of high rates of business investment. On this basis, they have been able to grow at historically unprecedented speeds by combining relatively low-cost, relatively skilled labor with ever more advanced means of production so as to orient production toward exports.

TABLE 1: DECLINING ECONOMIC DYNAMISM, 1960-2007

(average annual per cent change)

GDP	60-69	69-79	79-90	90-95	95-00	90-00	2000-07
US	4.2	3.2	3.2	2.5	4.1	3.3	2.3
Japan	10.1	4.4	3.9	1.5	1	1.3	1.4
Germany	4.4	2.8	2.3	2.2	2	2.1	1.2
Euro 12	5.3	3.2	2.4	1.6	2.7	2.2	1.9
Private Real Non-Residential Capital Stock (plant and equipment)							
US	3.9	3.7	3.0	2.0	3.8	2.9	1.8
Japan	12.5*	9.4	6.1	5.4	3.6	2.9	1.1**
Germany	6.7	5.2	3.3	3.4	1.5	2.4	1.2
Industrial	5.0	4.2	3.1	5.3	3.6	3.3	2.1
Total Economy Labor Productivity (GDP/worker)							
US	2.3	1.2	1.3	1.3	2.2	1.7	1.7
Japan	8.6	3.7	3	0.8	1.4	1.1	1.8
Germany	4.2	2.5	1.3	2.8	2.1	2.5	1.5
Euro 12	5.1	2.9	1.8	2.2	1.7	1.9	0.9
Total Economy Real Compensation (per employee)							
US	2.7	1	0.8	1	2.6	1.9	0.6
Japan	7.5	3.9	1.7	1.2	0.8	0.8	0.1
Germany	5.7	3	0.8	2.8	2.2	2.3	0.2
Euro 12	5.8	3.2	0.6	1.6	1.4	1.1	0.4
Real GDP Per Capita	**60-69**	**69-79**	**79-90**	**90-95**	**95-00**		**2000-07**
US		2.2	2.1	1.1	2.7	1.9	1.4
Japan		4.1	3.2	1.8	0.6	1.4	1.5
Germany		2.9	1.9	1.3	1.5	1.5	1.2
Euro 15		2.8	2.0	1.2	2.3	1.9	1.6
Private Total Real Compensation		**(employment times compensation per employee)**					
US	4.4	3.5	2.5	2.7	3.7	3.2	1.3
Japan	6.9	6.4	2.9	2.3	1.3	1.8	0.7
Germany	2.5	-0.4	1.6	2.2	1.2	1.7	-0.3
Private Employment	**60-69**	**69-79**	**79-90**	**90-95**	**95-00**	**90-00**	**2000-07**
US	1.8	2.1	1.9	1.4	2.4	1.3	0.9
Japan	1.4	0.8	0.9	0.7	-0.1	0.2	-0.3
Germany	0.2	0.3	1	-0.1	0.8	0.4	0.2
EU-12	0.2	0.4	0.7	-0.2	1.5	0.7	1.1
Real Personal Consumption Expenditure							
US	4.4	3.2	3.5	2.64	4.4	3.5	2.9
Japan	9	4.7	3.7	2.3	0.8	1.6	1.4
Germany	5.1	3.4	2.1	2.5	1.8	2.2	0.3
EU-12	5.6	3.7	2.3	1.5	2.62	2.1	1.6

But the problem has been that the commodities that the later developers have produced for sale abroad have tended increasingly to duplicate and compete with, rather than complement, goods that the earlier developers were already producing, though at higher cost. The result has been too much supply with respect to demand in one industry after another, which forced down prices compared to costs and in that way profitability. Compounding the problem, the great corporations that had hitherto dominated the market but now experienced the squeeze on their profits did not meekly leave their industries. On the contrary, they sought to hold their place by falling back on their capacity for innovation, speeding up investment in new technologies. But their determination to fight rather than switch has only exacerbated the tendency to excess capacity and reduced profitability.

What the decline in the rate of return meant was that firms could (on average) derive smaller profits from putting into play the same amount of capital—of plant, equipment, and software—as before. As a consequence, they found themselves with relatively smaller surpluses available to expand and a reduced incentive to do so, which tended to slow investment, as well as employment. At the same time, in order to restore profitability, they held down employees' compensation, while governments reduced the growth of social expenditures to the same end. The resulting decrease in the demand for capital goods, for consumer goods, and for government services made for a persistent weakness of demand in the aggregate. The insufficiency of aggregate demand has long been the immediate cause of the advanced capitalist economies' weakening performance in terms of growth, investment, and productivity, and the fall, and failure to recover, of the rate of profit has been behind this deficiency. **(See Table 2.)**

TABLE 2: PROFIT RATES: U.S., GERMANY, JAPAN
(business cycle averages)

Private Business Sector	**1949-59**	**1960-69**	**1970-79**	**1980-90**	**1991-2000**	**2001-2007***
US Non-Financial Corporate Profit Rate	0.133	0.146	0.105	0.098	0.108	0.100
Germany Profit Rate		0.177	0.132	0.128	0.094	0.095
Japan Profit Rate		0.190	0.126	0.119	0.085	0.086
Manufacturing Sector						
US Profit Rate	0.250	0.245	0.134	0.118	0.164	0.141
Germany Profit Rate		0.189	0.124	0.104	0.052	0.122
Japan Profit Rate		0.364	0.297	0.198	0.103	0.083

(* 2001-2006 for Japan; Germany=West Germany thru 1990)

Historically, all else equal, the buildup of overcapacity could have been expected to lead, sooner rather than later, to serious recession, in which redundant capital and labor were eliminated from the system, opening the way for a new expansion. But as we know, since the end of the postwar boom, it hasn't happened that way. Instead, governments turned to Keynesian deficits to provide the aggregate demand that the private economy could not muster on its own. Yet although increased government borrowing reduced the advanced capitalist economies' instability, it also brought ebbing economic vitality. Rising government deficits "subsidized" aggregate demand and in that way prevented profitability from falling even further, keeping the economy turning over, especially by dragging it from a succession of cyclical downturns that were far deeper, and more threatening, than any experienced during the first postwar quarter century. But that same government subsidy to demand also slowed the shakeout of high-cost, low-profit enterprises and means of production that was required to eliminate excess capacity, and it prevented real wage growth from falling further, while making for the buildup of debt. It thereby prevented profitability from recovering, while rendering the economy less responsive to stimulus and more vulnerable to financial crisis.

The Origins of Bubblenomics

During the 1980s, government borrowing as a percentage of GDP rose to unprecedented heights in the U.S. and in the advanced capitalist economies taken together, but economic growth nonetheless decelerated, as governments could secure ever-less output growth for any given increase in deficit spending—"less bang for the buck" in the jargon. The growth of plant, equipment, and software, as well as the growth of wages and social spending, continued to decline from 1973 through the first half of the 1990s throughout the advanced capitalist world. In effect, the system traded off growth and dynamism for greater stability.

It was only during the early 1990s that the Clinton administration, and then its E.U. counterparts, in a much-heralded attempt to break the addiction to borrowing, committed themselves to balanced budgets, a goal that was realized before the end of the decade. The economy would henceforth be liberated from the dead hand of the state, and driven ever upwards by the all-knowing market. But far from unleashing long-suppressed economic energies, as in the Clinton administration-Wall Street narrative, the swerve to what Clinton himself called "Eisenhower economics" laid bare the system's underlying weakness. Firms responded to the decline in government demand and the intensification of competition brought about by the reduction of the federal deficit by seeking to cut costs by way of holding down wages, reducing investment in new plant and equipment, and slowing job creation. The resulting hit to aggregate demand system-wide—which was made worse by Germany's turn to austerity in the wake of the inflation that accompanied unification, and the bursting of Japan's equity price and land market bubbles—ushered in the worst performance between 1990 and 1995 by the advanced capitalist economies, and indeed the world economy as a whole, up to that point for any comparable interval since 1950.

But now, the global system faced an impasse, and U.S. policymakers an acute dilemma. During the previous decade, against the background of decelerating growth system-wide, the American economy had secured a major increase in international competitiveness and export dynamism. On this basis, it had achieved a major, if still incomplete, recovery of the profit rate for the economy as a whole, which was entirely accounted for by an enormous 65 percent rise in the rate of profit for the manufacturing sector. By 1993-1994, the U.S. looked stronger than it had in two decades, and appeared to be initiating a major economic revival. Nevertheless, this quite significant improvement in the United States' international position had been derived to a very large extent from a radical, decade-long decline in the value of the dollar against the yen and the deutschmark, which had been detonated with the 1985 Plaza Accord among the leading capitalist governments. That same steep devaluation of the greenback had rendered the recessions that took place in Japan and Germany during the first half of the 1990s especially severe—in effect shifting much of the weight of system-wide overcapacity and profitability decline onto their shoulders in a zero-sum game that was to become ever more familiar. In Japan and Germany, the profit rate in both manufacturing and the private economy as a whole hit their lowest levels up to that juncture in the postwar era. In the early months of 1995, in the wake of the Mexican peso crisis, the exchange rate of the yen with respect to the dollar soared to its highest point of the postwar era, destroying the competitiveness of Japanese producers, and the Japanese export-dependent manufacturing economy seemed on the verge of freezing up.

To stave off the threat of international crisis, in spring 1995 the U.S. government, with the Reverse Plaza Accord, entered into agreement with its Japanese and German counterparts to push up the exchange rate of the dollar vis-à-vis the yen and mark so as to improve the competitiveness of its leading commercial rivals and partners and get their export-dependent manufacturing economies expanding again, in much the same way as Japan and Germany had agreed to revalue their currencies against the greenback so as to revive the U.S. economy a decade previously. But with the value of the dollar now suddenly skyrocketing instead of falling, the U.S. manufacturing sector that had just played such a central part in revitalizing the American economy could be expected to suffer a major drop-off in competitiveness and profitability and see its capacity to contribute to growth sharply decline. And this is exactly what began to happen—with the usual 18-24 month lag—before the end of 1997. To make things more difficult, the ever-greater U.S. government deficit spending upon which the rest of the world had relied for the better part of a quarter century to sustain its expansions was now politically ruled out. What was going to propel the U.S., and world, economies forward?

In 1995-1996, stock prices took flight, driven upward by the big rise in the exchange rate of the dollar and the steep fall in long-term interest rates that had (in both cases) been detonated by the enormous purchases made by the Japanese of dollar-denominated U.S. financial assets, mainly Treasury bonds, to implement the Reverse Plaza Accord…not to mention the Fed's succession of short-term interest rate cuts in the same period. By December 1996, Alan Greenspan was famously warning, at least in public, of "irrational exuberance." In private, however, it was a different story. As we know from the transcripts of the meetings of the Federal Open Market Committee (FOMC) taking place at this same moment, conservative members of the board, led by Lawrence Lindsey, were warning of a stock market bubble and demanding action to prevent the distortions it would likely engender in the economy. Greenspan did not hesitate to admit that, yes, there was definitely a bubble expanding and to grant that, yes, the Fed could, if it so desired, certainly burst it by increasing margin requirements for borrowing to invest in the stock market. But Greenspan admonished the Board that it would be dangerous to knock down share prices, and argued strongly against doing so. It was far from sure that the economic recovery had consolidated itself, and, in view of uncertainty about the economy's strength, provoking a fall in equity prices could very well cut it short. As usual, the Fed chairman won the day.

To stop the bleeding and ensure growth, the Federal Reserve Board was turning, willy-nilly, to the desperate remedy pioneered by Japanese economic authorities a decade previously, under remarkably similar circumstances. Private corporations and households, rather than the government, would henceforth subsidize demand and sustain growth by means of titanic bouts of private borrowing and deficit spending on capital and consumer goods, made feasible by historic increases in their (on-paper) wealth, themselves enabled by record run-ups (bubbles) in asset prices, the latter animated by low costs of borrowing. Private deficits and expenditures— corporate and household—enabled by the "wealth effect" of state-assisted financial bubbles thus replaced public deficits. The key to the whole process would be an unceasing supply of cheap credit to fuel the asset markets, ultimately insured by the Federal Reserve.

Against this background, financial markets in general and Wall Street institutions in particular took center stage and rose to new heights. Motivated by the profits virtually assured them by the Federal Reserve's commitment to keeping short-term interest rates low and to warn them in advance if it was going to increase them—not to mention the ample fees they could accrue per financial transaction—banks and other non-bank lenders played an indispensable intermediary role in driving the successive asset price run-ups of first stocks and then residential real estate, and the amplified economic expansions that the latter made possible. As asset prices rose into the firmament, these lenders in effect accepted at face value the resulting increases in on-paper wealth—and thus capacity for taking on debt—of financial investors, as well as of non-financial corporations and households. They thereby facilitated the increases in borrowing that allowed investors in the asset markets to drive asset prices higher, opening the path for the still further increases of borrowers' apparent wealth, of private indebtedness, of financial investment, of asset prices, and so on, all of which enabled each bubble to self-inflate in the manner characteristic of such manias throughout history. On that basis, the bank and non-bank lenders underwrote the historic run-ups, first of corporate indebtedness in the late 1990s, then household indebtedness in the 2000s, which were underpinned, successively, by the equity price bubble, then the housing bubble, and which sustained, respectively, the business investment-led boom of the later 1990s, then the household consumption- and residential investment-based expansion of the 2000s. What we therefore witnessed in the decade and a half or so leading into the economic-financial meltdown of 2007-2008 was the extraordinary spectacle of a world economy that had come, quite literally, to depend for its indispensable subsidies to demand upon historic surges of speculation in the asset markets, nurtured and publicly rationalized by state policymakers, the Fed, and government regulators working in close collaboration with an ever more powerful, parasitic, and corrupt financial sector. What is good for Goldman Sachs—no longer General Motors—is what is good for America...and, in view of its dependence on the U.S. market, for the rest of the world as well.

But the fact remains that the substitution of what can be called "asset price Keynesianism," or simply "bubblenomics," for the stodgy old-fashioned version from 1995-1996 was unable, any more than its predecessor, to reverse the underlying trend toward system-wide economic weakening. It could not, however, but profoundly increase the system's exposure to crisis. Between 1995 and 1999, the Fed refused to raise interest rates (except for a lone one-quarter-point increase in early 1997), but lowered them every time the stock market appeared in danger. Share prices soared in historic fashion and powered Alan Greenspan's "New Economy" boom, setting off a prodigious wave of investment and consumption of a sort not seen since the long postwar boom. But, expressing as it did the search for gains on speculation in asset markets, rather than any underlying increase in the rate of return in the real economy, the stock market bubble and the record wave of corporate borrowing and corporate investment it made possible could only serve to bring about greater overcapacity, while underwriting a vast misallocation of resources to "New Economy" industries—to technology, media, and telecommunications (TMT), as well as manufacturing more generally. The ostensible remedy for insufficient aggregate demand ended up increasing excess capacity.

Already by summer 1998, with the dollar soaring and the crisis originating in East Asia assuming global proportions, both non-financial corporate profits and share prices fell sharply and the U.S. economic expansion began to run out of gas. The most frightening financial meltdown up to that juncture in postwar history followed in the autumn, the dress rehearsal for the current collapse. The world economy seemed headed for a deep cyclical downturn, or perhaps much worse.

By means of an epic series of rate reductions, as well as other measures to ease credit—not to mention the dramatic bailout of the famous LTCM hedge fund—the Fed did succeed in overcoming the financial crisis, electrifying equity markets, and in that way sustaining the stock market run-up and the economic expansion for almost two more years. Led by TMT stocks, share prices soared to heights not reached since the 1920s, making possible still greater borrowing and still more investment. America grew at its fastest pace of the decade, its market pulling the rest of the world—not least the crisis-bound, manufacturing-centered, export-oriented economies of East Asia—out of the doldrums and into a spectacular, synchronized, export-led global boom. But even as the U.S. boom and the U.S. bubble reached their peaks, profitability plunged, pressed down by worsening world-wide overcapacity in manufacturing in general and New Economy industries in particular, and squeezed by real wages that finally began to increase rapidly in the final years of what turned out to be the longest expansion of the postwar era. As former Fed chair Paul Volcker pithily described the scene, "The fate of the world economy is now totally dependent on the growth of the U.S. economy, which is dependent on the stock market, whose growth is dependent upon 50 stocks, half of which have never reported any earnings."

By Spring-Summer 2000, the ever increasing disparity between equity prices and corporate earnings could no longer be sustained, and the stock market bubble was punctured by a series of disastrous profits reports. Led downwards by Chairman Greenspan's vaunted information technology sector, the equity markets entered a long, steep crash, depriving the economy of its indispensable prop and revealing for yet another time its reliance upon investment and consumer demand that was itself heavily dependent upon corporate (and household) borrowing made possible by rising asset prices that lacked a counterpart in rising profits to sustain them. As profit rates fell and the wealth effect went into reverse, the U.S. economy plunged into recession, the U.S. domestic market contracted, and the rest of the world went from boom to downturn as quickly as it had emerged from crisis a couple years previously. The reliance of global growth on the U.S. could hardly have been more starkly revealed.

To stem the tide, the Fed lowered the cost of short term borrowing with historically unprecedented rapidity, reducing the Federal Funds rate from 6.5 percent in January 2001 to 1.75 percent in February 2002. But Greenspan was pushing on a string. In 2001, the average rate of profit for non-financial corporations fell to its lowest level of the post war epoch (except for 1980). Businesses had little choice, therefore, but to focus on reviving their rates of return. Facing a huge overhang of redundant means of production and of employment left over from the bubble years, as well as record levels of corporate debt resulting from their record borrowing, they cut back sharply on investment and employment, especially in manufacturing and TMT; reduced costs by holding down wages and impelling their workers to labor more intensely; and took advantage of reduced interest rates to bring down what they owed. Nevertheless, the result of corporations' efforts at austerity and cost-cutting was to reduce both household and investment demand, repressing demand in aggregate and undermining further their own incentive to expand. And the pattern was similar throughout the advanced capitalist world.

Saved by Weakness

The advanced economies were in effect saved by their own weakness. The system-wide slowdown of capital accumulation in the opening years of the new century, following upon the crises of the world economy of 1997-1998 and 2000-2001, ushered in a major decline in corporations' demand for credit. The supply of credit was meanwhile increased, when East Asian sovereign lenders, led by Japan and China, made possible still another record-breaking U.S. stimulus program by covering at below-market rates the government and external deficits that inevitably accompanied its implementation. Real long-term interest rates thus continued a sustained, epoch-making decline that had begun in the last half-decade of the old millennium, and they provided—in combination with the Fed's huge reduction of short term rates—the basis for a new round of asset price Keynesianism, this time in housing and leveraged lending.

The fixed, 30-year interest rate that was quasi-universal in the U.S. housing market now fell dramatically, as an expression of the general decline in the cost of long-term borrowing, and the results were dramatic. Contrary to popular perceptions, throughout the whole of the postwar period, housing prices had grown at roughly the same speed as prices in general, so in real terms had barely risen. Nor had they ascended faster than rents for any significant period of time. But, suddenly, starting in the late 1990s, prices for residences began an entirely unprecedented ascent, initially driven upward by the migration of money made on the stock market into the housing market and sustained during the opening years of the new century by the falling cost of mortgage borrowing.

Between 2001 and 2007, real wages for production and non-supervisory workers, about 80 percent of the labor force, remained essentially flat, while median family income also failed to rise. But with the prices of their houses, and thus their on paper wealth, rapidly ascending, just as the value of stocks had skyrocketed between 1995 and 2000, households could borrow as never before against the value of their residences. Between 2000 and 2006, housing prices in real terms rose by an astonishing 60 percent and in the same brief period, household on-paper wealth in the form of residential real estate doubled—rising by $10.5 trillion, almost the level of U.S. GDP—and provided the collateral to allow never-before seen levels of household borrowing. So called "Mortgage Equity Withdrawals" (MEWs) now rose in record fashion, as households used their apparently more valuable residences like the proverbial ATM. By the time the expansion had run its course, MEWs were amounting to almost $1 trillion annually, about 8 percent of personal disposable income. On this foundation, household borrowing as a percentage of household income was able to smash all records, averaging an extraordinary 12 percent of personal disposable income from 2003-2006.

The unprecedented levels of household borrowing made possible a major increase in the growth of personal consumption and residential investment, and personal consumption and residential investment basically drove the expansion...not least through sustaining the greatest boom in the construction industry in postwar U.S. history. In view of the stagnation of employment and investment that overtook the economy in these years, households' plunge into debt could hardly have come at a more opportune moment, for it enabled them to make up for the defection of business in powering the economy. Personal consumption plus residential investment would account for more than 90 percent of the increase of GDP that took place over the course of the business cycle, which began it the start of 2001. Just as the housing bubble replaced the equity price bubble, the "wealth effect" of rising home prices took over from that of rising share prices in driving growth.

Nevertheless, the enormous boost to demand provided by the wealth effect of soaring housing prices could neither cure nor long make up for the economy's underlying weakness. Even by 2003, despite the housing price run-up, non-residential investment, employment, exports and non-financial corporate profits were still below their levels of 2000. For the three years between 2000 and 2003, GDP growth had averaged just 1.6 percent per annum and had it not been for housing, specifically the increase in mortgage equity withdrawals and expenditures on home construction and furnishings in that interval, it would, according to Moody's Economy.com, have been a miniscule 1.1 percent. To make matters worse, in 2003, as housing affordability began to weaken in the face of skyrocketing home prices and stagnating real wages, annual mortgage originations reached their peak for the business cycle and began to fall the following year, threatening a quick end to the ascent of household paper wealth and thus the household borrowing, personal consumption, and residential investment that was underpinning economic expansion. Just as in 1998, it would require the spectacular intervention of the Federal Reserve to keep the bubble inflating and the economy growing.

Already in November 2002, concerned that the recovery was running out of gas almost before it started, the Fed had felt compelled to reduce short term interest rates another half point, but the economy had barely responded. So in June 2003, it cut its rate a further quarter point to 1 percent, its lowest level since 1958, and left it there until the following June 2004. The effect was to take real short term rates (adjusted by the consumer price index) below zero for two full years. A few months later, Alan Greenspan called for new forms of more affordable mortgages, while also recommending that households seriously consider adjustable rate instead of fixed rate mortgage loans, despite the greater inherent risks of the former. It was surely no coincidence that, for the most part, interest rates on subprime mortgages were adjustable, nor that the Federal Reserve and the Bush administration averted their eyes from the spectacular plunge in lending standards that took place during the next several years.

Between 2003 and 2004, the result was an extraordinary spike in the origination of non-conforming mortgages—subprime mortgages and their close cousin Alt-A mortgages (sometimes known as "liars' loans" because of the minimal documentation they usually required). From 2004 onwards, originations of conforming (prime) mortgage loans plunged, but originations of non-conforming mortgages continued to soar, sustaining the housing market and the housing price run-up and, in that way, the rise of personal consumption and residential investment. Once again, the Fed had saved the expansion by saving the bubble.

Still, to argue that the boom in non-conforming mortgages sustained the economic expansion by sustaining the housing bubble poses a major problem, indeed the problem. It is easily understandable how lowering short-term interest rates and reducing the requirements for securing a mortgage could have expanded the housing market and driven up prices by welcoming in a whole new layer of working class families that had previously been excluded. But, in view of the fact that these borrowers were so much less qualified than before and could only borrow on terms less favorable to lenders, the question is, why would lenders sell mortgages to them?

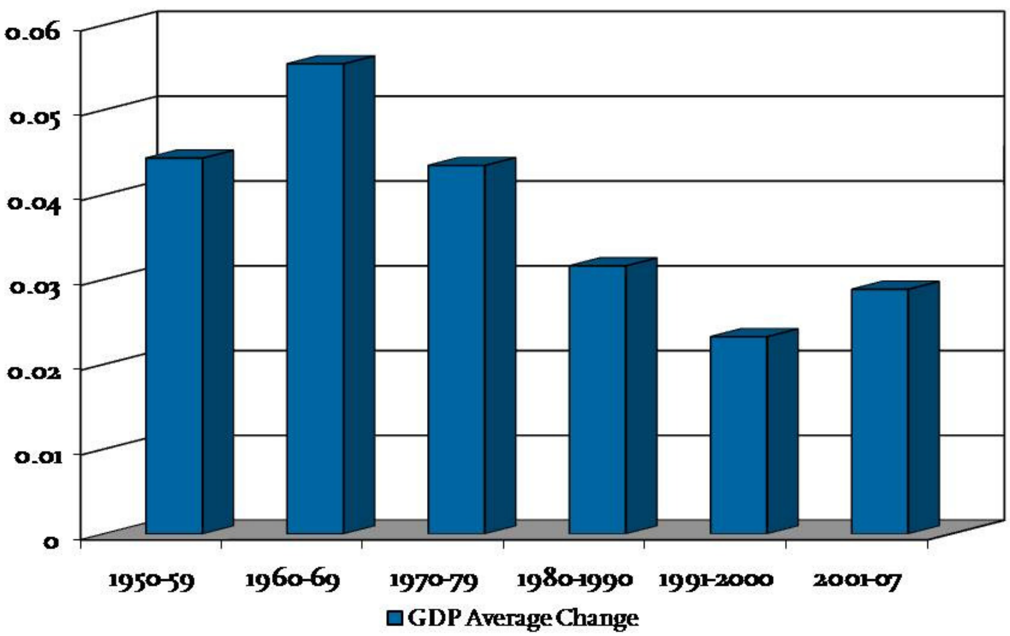
The answer in brief lies in the same decline in the cost of borrowing that drove the housing bubble in the first place. The fall in the price of loans that was so favorable to borrowers meant a decline in the rate of return that squeezed lenders, and financial investors more generally, driving them on a frenzied search for higher yields. It was the illusion of elevated rates of return apparently available from securities backed by non-conforming loans that induced pension funds, insurance companies, hedge funds, local governments, and banks the world over to purchase them in unending quantities, keeping the housing bubble expanding. Still another historic explosion of speculation, this time in global credit markets, thus proved indispensable to keep the real economy turning over.

But it was testimony to just how lame the economy actually had become that, despite the greatest peacetime economic stimulus in U.S. history, economic performance in the U.S., Japan, Germany, and much of continental Western Europe during the business cycle that ran from the start of 2001 through the end of 2007 was palpably weaker than during any other comparable interval in the last half century in terms of virtually every leading macroeconomic indicator—the growth of GDP, GDP per capita, plant and equipment, employment, real wages, and so forth. Nor, despite exaggerated claims, was the world economy as a whole much to write home about, despite China's spectacular growth. According to the WTO, the average annual increase of world real GDP in the years 2001-2007 was slower than that recorded in any other similar period since 1950 (aside from 1991-2000), and did not begin to approach the figures racked up during the much-maligned 1970s, let alone the postwar boom of the 1950s and 1960s. **(See Graph 1.)**

Speaking only of the U.S., upon whose domestic market the rest of the world had become so reliant, the increase of GDP, at 2.3 percent per annum for 2001-2007, was well below the previous post-war low for any other comparable period, and so was the growth of plant and equipment. Over the seven years, the private sector essentially failed to raise employment (measured in terms of hours worked) at all, something previously unheard of. Whereas private non-farm employment rose by 14.5 percent between 1980 and 1987 and by 13.4 percent between 1990 and 1997, it increased by a barely noticeable 0.5 percent between 2000 and 2007. Astonishingly, but all too symptomatically, even this dismal level of economic vitality was achieved only thanks to the Bush administration's Reaganesque budget deficits, the ultra-low interest rates provided for most of the expansion by the Federal Reserve, and, above all, the unprecedented levels of bubble-driven household borrowing…which were themselves only made feasible by massive subsidized lending to the U.S. by East Asian countries to cover the unprecedented trade and current account deficits that inevitably resulted.

The bubble-driven housing sector, by way of its effect in raising expenditures on personal consumption and on home construction and home furnishings accounted, according to Moody's Economy.com, for more than 30 percent of the quite minimal increase in GDP that took place between 2000 and 2005. Housing-related employment accounted, moreover, for 40-50 percent of jobs created in the same period, according to Merrill Lynch. It should therefore have surprised no one that, when housing prices began to descend starting in the middle of 2006—as they inevitably had to since they lacked much foundation in the growth of incomes—the motor that had driven the economy forward throughout the business cycle did not just shut down but went savagely into reverse, setting off a vicious cycle in which declining residential property values undermined the real economy and vice versa.

GRAPH 1: WORLD REAL GDP GROWTH (1950-2007)



World GDP Growth = Weighted Average of Economies' Real GDP Growth
Weights = Shares of Economy in 2000 World Nominal GDP Converted to Dollars at Market Exchange Rates
Source: WTO

Households' borrowing binge had saddled them with a mountain of debt, which had doubled as a percentage of their disposable income during the previous seven years. Yet the on-paper value of their homes was now plunging almost as fast as it had risen, at a velocity never before recorded. They therefore had little choice but to drastically reduce their borrowing and begin to save with a vengeance, driving down the spending on consumption and residential investment upon which the economy had relied. Already by 2007, household borrowing had fallen by a third and in 2008 collapsed to zero. Through the whole of the postwar epoch into the early 1990s, households had, on average, saved about 10 percent of their income after taxes and Social Security contributions, and never less than 7 percent. But during the subsequent period of equity and housing price run-ups, they had let their rising on-paper wealth do their saving for them, and during the years 2005-2007 the personal savings rate fell to its lowest level of the postwar era, averaging 1.8 percent. But by 2008, it had come back to 2.7 percent and jumped to 4.4 percent in

2009. Without bubble-based-borrowing/dis-saving to support it, consumption could not but dive, and, by the second half of 2008, it was contracting and taking GDP down with it.

Private business had contributed little to growth by way of additions to plant and equipment and employment between 2000 and 2007. When household-driven consumption and residential investment, hitherto financed by households on the basis of rising house prices, began to decline in 2006, profitability did as well, and firms naturally cut back on job creation, as well as investment in new means of production. In 2007, the growth of employment was already falling, and, from the start of 2008, employment simply fell off the cliff, propelling the economy into a vicious downward spiral, in which falling demand from households drove down profits, making for falling non-residential investment, employment, and wages, leading to further declines in aggregate demand thus profits and so forth.

What turned the specter of a severe cyclical downturn or worse into the reality of catastrophic systemic crisis was the rise of the "shadow banking system" in the financial sector, of which few, even insiders, were aware. According to Wall Street mantra, the frenzy in the asset markets actually entailed little systemic danger, for the great banks upon which the economy depended for credit were ostensibly securitizing the mortgages that they had originated or purchased and selling them far and wide, dispersing risk among thousands if not millions of discrete investors across the globe. Yet when the dust cleared in the aftermath of the initial credit crunch of early August 2007, it quickly became evident that the reality was just the opposite. In response to intensifying competition and falling (risk-adjusted) returns on financial investment—and manifesting levels of greed and over-confidence amazing even for Wall Street—the country's greatest financial houses had managed to hold on to a stunningly large portion of the mortgages and mortgage-backed instruments that they had issued, either on or off balance sheet, and were, astoundingly, funding these same assets by way of wave after wave of borrowing in the short-term credit markets. So when the dizzying fall in housing prices had worked its way through the originate-and-securitize daisy chain, a large number of these institutions found themselves effectively deprived of their capital and without access to credit, de facto in bankruptcy. This would have been poetic justice, except for the fact that, as usual, the leading executives of these institutions managed to insulate themselves personally from the fate of their own corporations, and the horrific losses redounded primarily upon the heavily working class and minority purchasers of non-conforming mortgages and of course taxpayers by way of massive bailouts.

The financial market meltdown undermined banks' capacity to advance funds to corporations and households at a time when they had already been tightening their lending standards in the face of the weakening of the economy set off by the housing bust. In this way, it very much sped up the unfolding crisis of consumption, profits, employment, and investment in the real economy. The latter, by exacerbating the fall in the prices of residential real estate and thus of securities backed by residential mortgages, rendered the crash of the financial sector even more disastrous and less containable. It was the banks' inability to lend to one another, as much as their doubts about the capacity of their counterparts within the financial sector to repay their loans, that brought about the paralyzing freeze up of inter-bank lending, as well as to the real economy.

But, in the end, the inability of the banks to supply credit was only part of the story. The deeper problem was that non-financial corporations and households were in no position to demand it, or qualify for it. Households had rescued the economy over the previous seven years with their historic burst of borrowing, consumption, and residential investment. But, confronted by plummeting home prices and the mountain of debt that they had accumulated, as well as a sinking labor market, how could they be expected to do anything but pull back on borrowing and spending and, by choice or necessity, to start once again to increase their rates of saving? Non-financial businesses had done little investing or employing, and thus minimal borrowing for purposes of expansion, throughout the entire business cycle. How could they be expected to start now, in the face of collapsing household demand making for plunging profits? The economy entered a downward slide of extraordinary intensity, in which the signals of the market told private businesses and households, and thus financiers as well, to pull back as sharply as possible on spending, borrowing, and lending.

Faced with the worst economic downturn since the Great Depression, President Obama's economic team has focused its rescue efforts first and foremost on saving the banks from themselves. An alphabet soup of Treasury and Federal Reserve programs has offered the financial sector more than $10 trillion in support, keeping many institutions from almost certain collapse, at least for the time being. Meanwhile, the Fed has held its short-term interest rate near zero, to facilitate bank profit-making and ease credit in the broader economy. But when it came to directly addressing the sharp pullback of business spending on plant and equipment and job creation, the administration's official stimulus package was woefully inadequate, and by the time it was signed into law in February 2009, it was also outdated. Even on the administration's highly optimistic assumptions, the program was to save 3.5 million jobs over two years. Yet the economy had already lost 4.4 million jobs since the official start of the recession in December 2007, and would before the end of 2009 lose almost 4 million more. In the same period, non-residential investment has plunged, and the housing sector, where the crisis originated, remains in deep trouble, further darkening prospects. So far the only thing that's taken off is the stock market, pressured upward for still another time by cheap credit, and still again without the benefits of non-financial profits to match…but this time lacking the titanic bubble-driven wealth effects that underpinned the last two expansions. The administration has made economic policy as if it believes that once financial institutions and financial markets are restored, credit will start flowing and growth will follow. This would be in keeping with its analysis of our economic problems, but ignores the deeper roots of the crisis, which lay not so much in the incapacity of financial institutions to lend, as in the overcapacity that has long gripped the global economy.

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