

RICHARD DUNCAN

*Interview*

A NEW GLOBAL DEPRESSION?

*You were one of the very few analysts to predict the full enormity of the financial crisis, writing as early as 2003 of a coming credit crunch that would have ramifications throughout the asset-backed securities sector, necessitating giant bail-outs for Fannie Mae, Freddie Mac and financial-insurance companies, and a possible meltdown in the multi-trillion-dollar derivatives market. This prescience was in stark contrast to the complacency of most mainstream economists. Could you describe how you came to write *The Dollar Crisis*—what was the course of your intellectual development and what did you learn from your experience as a Far East securities analyst?*

**I** GREW UP IN Kentucky and went to Vanderbilt University. My plan was to go to law school, but I didn't get in. Plan B was to go to France for a year, picking grapes. I got a job as a chauffeur in Paris, driving rich Americans, and made enough money to backpack around the world for a year, in 1983 and 84. So I was lucky enough to see the world when I was very young. I spent a couple of months in Thailand, Malaysia and Singapore—and even a couple of months there was long enough to realize: go east, young man.

*Go east, because?*

Economic opportunity. It was obviously booming—there were big skyscrapers going up, and people couldn't read maps of their own street. So I went back to business school in Boston, at a time when there was of course very little economic growth in the United States. When I finished business school, going to Asia seemed the obvious thing to do. I found a job in Hong Kong, as a securities analyst with a local, Hong Kong–Chinese stock-broking company. This was 1986. In the first twelve

months I was there, the Hong Kong stock market doubled—then I woke up one morning and learned that Wall Street had fallen 23 per cent overnight, and Hong Kong immediately fell back to where it had started. By 1990 I had joined James Capel, the oldest and largest UK stock-broking company at that time, and they sent me to Thailand to manage their research department there. We had ten analysts watching all the companies on the Bangkok stock market. At first, there really was something of a Thai miracle—the growth was solid and fundamental. But very quickly, by 1994, it was obviously a bubble and I started being bearish on the market. I wasn't saying it was going to collapse, but the growth was going to slow down. But it just kept accelerating, and the bubble turned into a balloon. When it did finally pop, in 1997, Thailand's GDP contracted by 10 per cent and the stock market fell 95 per cent in dollar terms, top to bottom.

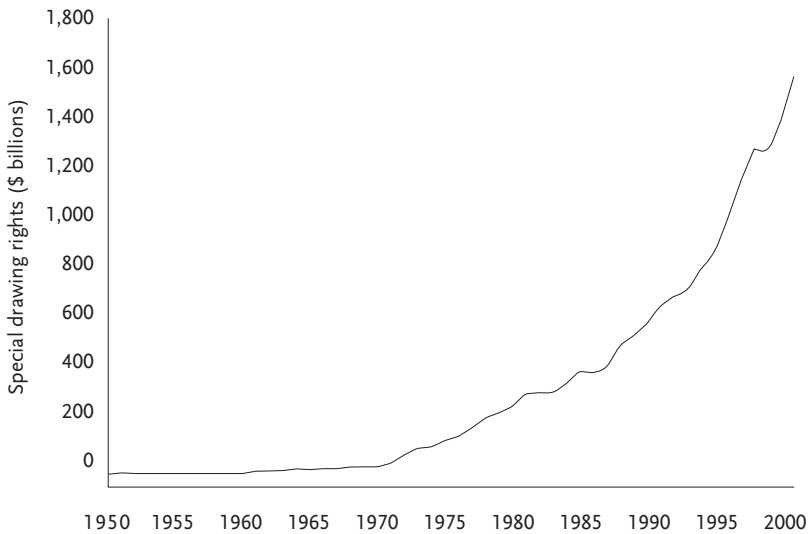
So I witnessed at close quarters a very big boom-and-bust cycle, over a very short period of time. And while I was wrong for several years, I had plenty of time to think about *why* I was wrong. I started reading a lot of macro-economics: Keynes, Schumpeter, Milton Friedman's monetary history of the US, the classic works. There was also a sort of lightning-flash moment, around 1994. Five years earlier I had taken a group of fund managers on a trip around the Pearl River Delta, from Hong Kong up to Canton, and back down the other side to Macao. What we saw, all along this vast delta, were miles and miles of factories, as far as the eye could see, full of nineteen-year-old girls earning \$3 a day. It was in 1994 that the meaning of this really became clear to me: globalization was not going to work. The US would have a bigger and bigger trade deficit, and the American economy would continue to be hollowed out. It was unsustainable—the demographics made it impossible for this system to work. *The Dollar Crisis*, which came out in 2003, examined the way those global imbalances were blowing bubbles in the trade-surplus economies, and how the money boomeranged back into the US. I came to see that the unlimited credit expansion enabled by the post-gold, post-Bretton Woods international monetary system was where it all began.

*Yet you're not advocating a return to gold?*

No. That is, I think that if the US had remained on the gold standard, it wouldn't now be teetering on the edge of collapse. The global economy would be much smaller than it is; China would look nothing like

it does. There would have been much less growth, but it would have been more stable. But now that we're here, there's no going back. If the US was to go back, the sort of deflation that would be required to take us there would be absolutely unbearable—like 1926 in Britain. But it's important to understand what the effects have been of abandoning the automatic adjustment mechanisms inherent in the gold-linked Bretton Woods system and the classical, pre-1914 gold standard—they automatically served to correct large-scale trade imbalances and government deficits. Officially, the international monetary system that emerged after 1973 and the breakdown of Bretton Woods still doesn't have a name. In the book I called it the 'dollar standard', because the US dollar became the medium for the world's reserve assets, in place of gold. *The Dollar Crisis* focused on how this system had enabled worldwide credit bubbles to be created. Total international reserves, the best measure of global money supply, soared by almost 2,000 per cent between 1969 and 2000 (Figure 1), with the central banks creating paper money on an unprecedented scale.

FIGURE 1: *Total International Reserve Assets, 1949–2000*



Source: IMF, *International Financial Statistics Yearbook 2001*

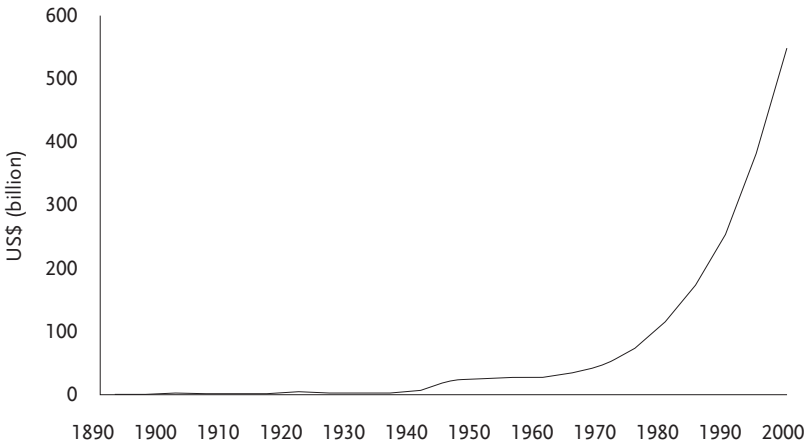
From: *The Dollar Crisis*, Fig. 1.1, p. 6

The quantity of US dollars in circulation soared (Figure 2). One of the main features of the dollar standard is that it allows the US to incur a huge current-account deficit, as it pays for its imports in dollars—of which the Federal Reserve can print as many as it needs, without having to back them with gold—and then gets these dollars back from its trading partners when they invest them in dollar-denominated assets—Treasury bonds, corporate bonds, equity, mortgage instruments—as they must do, if they are to earn any interest on them. The French economist Jacques Rueff once compared this process to a game of marbles in which, after each round, the winners give their marbles to the losers. The larger the US current-account deficit has become, the larger the amount of dollars that wash back into the US through its equally vast financial-account surplus (Figure 3). The other option for America's trading partners—the one US pundits are always calling for—would be to exchange the dollars they're earning for their own currency, which would drive up its value and thereby make their exports too expensive for the US market, knocking them out of the game.

*The post-Bretton Woods era had been plagued by financial crises long before 2008—Latin America in the 1980s, Japan in 1990, Scandinavia in 1992, the Asian Crisis of 1997, Russia, Argentina, Brazil, the dot.com bust. What is your explanation for this?*

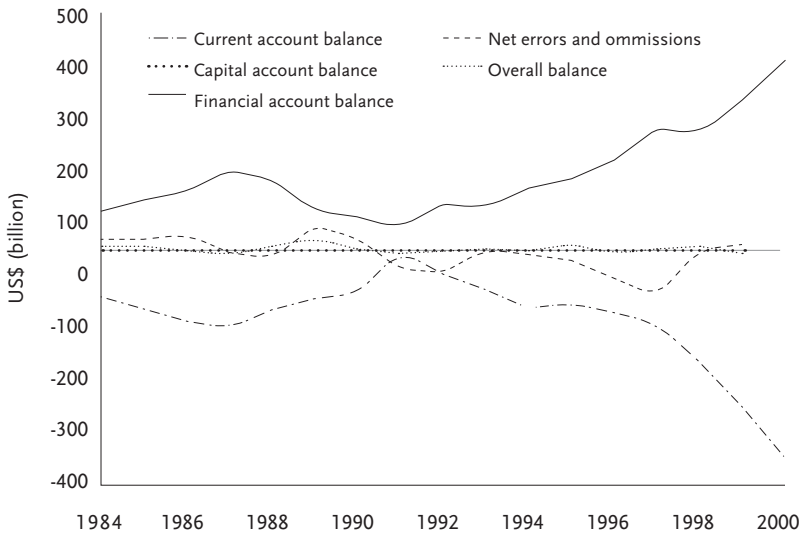
The Austrian economists were basically right in their understanding of the role credit plays. As long as it is expanding, credit will create an artificial boom, driving an upward spiral of economic growth and inflating asset prices, which create further collateral for yet more credit expansion. But the day always comes when ever-faster economic overheating and rising asset prices outstrip the growth of wages and incomes, to such an extent that these can no longer service the interest on the credit. Bubbles always pop and when that happens, it all begins to spiral into reverse: falling consumption, falling asset prices, bankruptcies, business failures, rising unemployment and a financial sector left in tatters. The depression begins—which, according to the Austrians, is the period in which the economy returns to some sort of pre-credit equilibrium. Nothing drops forever; at some point the asset price comes more closely in line with the income of the public, and the economy stabilizes. What changed under the 'dollar standard' was the advent of vastly greater quantities of credit, creating harder and faster boom-and-bust cycles. In fact the first boom-and-bust crisis of the post-Bretton Woods era was sparked

FIGURE 2: *US Currency Held by the Public, 1890–2000*



Sources: 1890–1970: US Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970*; 1975–95: IMF, *International Financial Statistics*, IMF Statistics Department; 2000: Federal Reserve, *The Flow of Funds*, Table L.108. From: *The Dollar Crisis*, Fig. 1.5, p. 12

FIGURE 3: *United States: Breakdown of the Balance of Payments, 1984–2000*

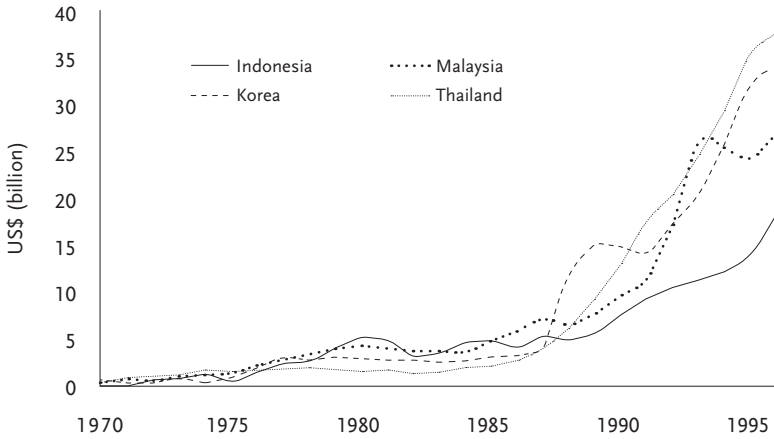


Source: IMF, *International Financial Statistics*  
 From: *The Dollar Crisis*, Fig. 3.1, p. 45

off in the 1970s, when the New York banks recycled petro-dollars from the OPEC states as loans to South American and African countries, flooding their economies with credit. When the 'miracle' booms deflated into busts, this created the Third World debt crisis of the 1980s.

But destabilizing credit creation really took off once the US started to run current-account deficits of over \$100 billion, from the early 1980s; a few years later it began running large government budget deficits, too, which it could fund through the resulting financial-account inflows. It could run the deficits because it could print all the dollars it needed. As these dollars entered the banking systems of countries with a current-account surplus against the US, they acted as 'high-powered money'—that is, the original amount could be lent and re-lent by the banks, many times over—setting off an explosion of credit creation that would generate economic overheating and soaring asset prices, first in Japan in the 1980s, then in the 'Asian Tiger' economies in the 90s. In countries like Thailand, in particular, inflows of 'hot' capital attracted by the initial growth served to blow the credit bubble even bigger. Eventually, over-investment produced over-capacity and over-supply, followed by a downward spiral of falling profits, bankruptcies and stock-market crashes, leaving their banks laden with non-performing loans and their governments deep in debt. After the 1997 Asian Crisis, a surge of capital inflows washed back into the US, creating the 'new economy' stock-market bubble and credit boom there.

Now, there's no doubt that Japan, for instance, derived tangible economic benefits from its export-led growth. Without the purchasing power that came from its trade surpluses with the US, its economy would have grown at a much slower rate through the 60s and 70s. But what's less appreciated is the expansionary impact those surpluses had on domestic credit, once they entered Japan's banking system. It was this that helped inflate the great Japanese bubble economy—the ratio of domestic credit to GDP rose from 135 per cent in 1970 to a massive 265 per cent in 1989. Japan actually tried to export large amounts of capital in the mid-80s, to avoid its economy overheating: after 1985, faced with the sharp appreciation of the yen, there was a big relocation of Japanese manufacturing capacity to other East Asian economies, setting off the growth of the 'Asian tigers', Thailand, Indonesia, South Korea, Malaysia (Figure 4). But after so many years of trade surpluses, rising international reserves and swelling money supply, it was impossible to stop a further surge

FIGURE 4: *Total Reserves minus Gold, Selected Asian Countries, 1970–96*

Source: IMF, *International Financial Statistics*  
 From: *The Dollar Crisis*, Fig. 2.18, p. 42

causing drastic overheating in the late 80s. After the Japanese bubble popped in 1990, property prices fell by more than 50 per cent and the stock market by 75 per cent; twenty-two years later, its banks are still laden with bad loans and government debt is the highest in the world—230 per cent of GDP.

*What was your assessment of the IMF's handling of the Asian Crisis?*

I'd left Thailand before the bubble popped in 1997, but after six years studying the market there I felt I had a good understanding of what was happening, so I started calling up the IMF, the World Bank and the US Treasury Department, and harassed them until the IMF hired me as a consultant in May 1998. I flew over to Bangkok with them—there was a group of about thirty people from the IMF and the World Bank, and we all stayed at the very nice Oriental Hotel on the river. For three weeks I got to spend a little time with them, and got a glimpse into how they worked and what their thinking processes were. I have to say I was shocked at how little they seemed to know about Thailand's economy and the nature of the crisis there. Maybe I'm being a bit unfair, because I'd had so much intensive experience there, but I had assumed that the IMF would be at least as knowledgeable as I was. They were a lot of very

intelligent people, who had a great deal of experience in many economies around the world, but they didn't seem to know much about what was happening in Thailand. At one meeting they decided—without any particularly good reasons that I could determine—to project a 3 per cent contraction for the Thai economy that year. I spent the next week writing reports explaining why I thought the economy would shrink by 9 per cent in 1998 and 9 per cent the following year, if it continued with the same IMF-imposed policies that were being pursued at that time. In the end, the economy did contract by about 10 per cent in 98, but then it rebounded the following year. By that time, they'd reversed many of the initial policies the IMF had demanded in the early days of the crisis. What really made the difference was a massive devaluation of the currency—from 25 baht to the dollar to 50 baht, at one point—which was very helpful in allowing Thailand to grow its way out of the crisis, by exporting into the still relatively booming global economy.

After that, I got a full-time job with the World Bank in Washington for two years, starting in October 98, and that was also very interesting. Both these Bretton Woods institutions had been created to replicate the automatic stabilizers of the gold standard, to help countries to re-establish an overall balance-of-payments equilibrium when they ran out of cash. The end of Bretton Woods and the expansion of global trade imbalances transformed the situation; but at the time of the East Asian crisis, I don't think the IMF and World Bank quite understood how destabilizing the larger and larger cross-border capital flows had become. They didn't understand how the capital inflows that had washed into Thailand during the 80s and 90s had completely changed and distorted the economy and blown it into a bubble—and when all the money washed back out, the economy really deflated. It would have destroyed all the banks and all the Thais' savings, had they carried out the harsh policies that might have been appropriate in the 1950s or 60s.

*To go back for a moment to the growing US trade deficit, which you see as at the root of the explosion of credit creation: the deficit had begun to widen in the early 80s, but by 1985 in fact the US was pushing for a sharply lower dollar, as agreed with Germany and Japan in the 'Plaza Accord', and this did succeed in boosting American manufacturing and narrowing the deficit. By 1995, though, that policy had gone into reverse. Why do you think the US did not continue to push for a lower dollar over the longer run, and what would the effects have been had it done so?*



I'm not sure I know a complete answer to that question. By 1985, the US trade deficit was something like 3.5 per cent of GDP and this was very alarming, not only to US policy-makers but around the world, because the economies of the surplus countries, primarily Japan and Germany, were getting over-heated. The agreement at the Plaza Hotel in 1985 was that the dollar would be devalued against the yen and the mark, and over the next two years the dollar fell by roughly 50 per cent. That was enough to bring the US trade deficit more or less back into balance by around 1990. But by that point, Japan and Germany were no longer the problem. It was the Asian Tigers that were increasingly becoming large exporters to the US, with growing trade surpluses, followed by China. Once China really got going, its trade surplus became larger and larger. But the US didn't have the same sort of control over China's currency as it did over Japanese and German policies. In fact in 1994, China had a massive devaluation of its currency, which made the situation much worse in terms of the US trade deficit.

*So the rise of China came athwart the US low-dollar export policy?*

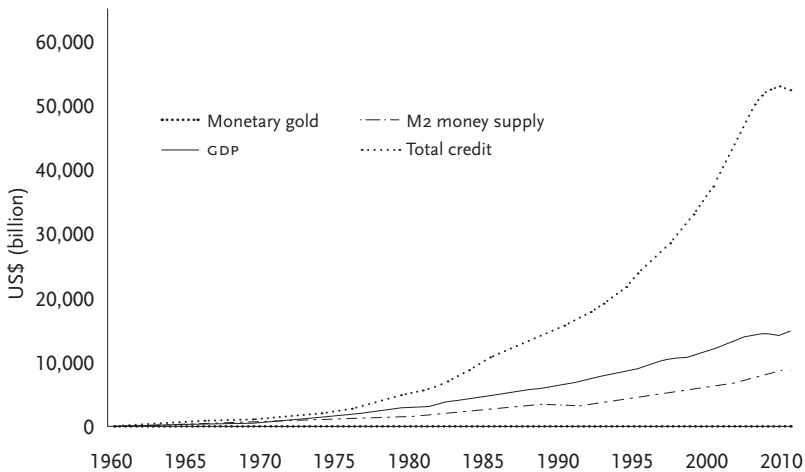
It's a very complicated subject, but I think that, as time went by, American industry gave up on American manufacturing, and realized that they could make a profit by manufacturing outside the US in ultra-low-wage countries. And so it began. Eventually, more and more corporations realized that they could do very well by outsourcing. A tipping point came in the early 90s, when it was actually in the interest of major sectors of American society to have a strong dollar and a weak Chinese currency, or weak currencies in all the other countries from which American firms were exporting goods back to the US. The issue with Germany and Japan in the 80s had been different, because the workforces of those countries already had relatively high wages compared to the US. It was really only after the rise of the Asian Tigers, and above all when they were joined by China in the 90s, that American industry realized that it could make a lot more money just by making everything offshore. From 1997, the US deficit widened dramatically (Figure 3, p. 9 above).

*More generally, how has the 'dollar standard' affected the US economy itself?*

Once the constraint was removed of the US needing to have 25 per cent gold backing for every dollar that it issued, it also lifted any constraint on how much credit could be created. It had been easy for the US to maintain

gold backing in the first post-war decades, because it owned most of the world's gold. But with multinationals relocating industry abroad and growing government spending, it finally came up against that binding constraint in 1968. So Congress simply changed the law, at Johnson's request, removing any requirement for a gold link. But with no restraint on credit, either, credit growth exploded. Of course, credit and debt are simply two sides of the same coin. In the US, total debt—government, household, corporate and financial-sector debt, combined—expanded from \$1 trillion in 1964 to over \$50 trillion by 2007 (Figure 5). Credit growth on this scale has been taken for granted as natural; but in fact it is something entirely new under the sun—only made possible because the US broke the link between dollars and gold. This explosion of credit created today's world. It made Americans much more materially prosperous than we would have been otherwise. It financed Asia's strategy of export-led growth and it ushered in the age of globalization. Not only did it make the global economy much bigger than it would have been otherwise, it changed the nature of the economic system itself. I would argue that American capitalism has evolved into something different—in my latest book, *The New Depression*, I call it 'creditism'.

FIGURE 5: US Total Credit, Money and GDP



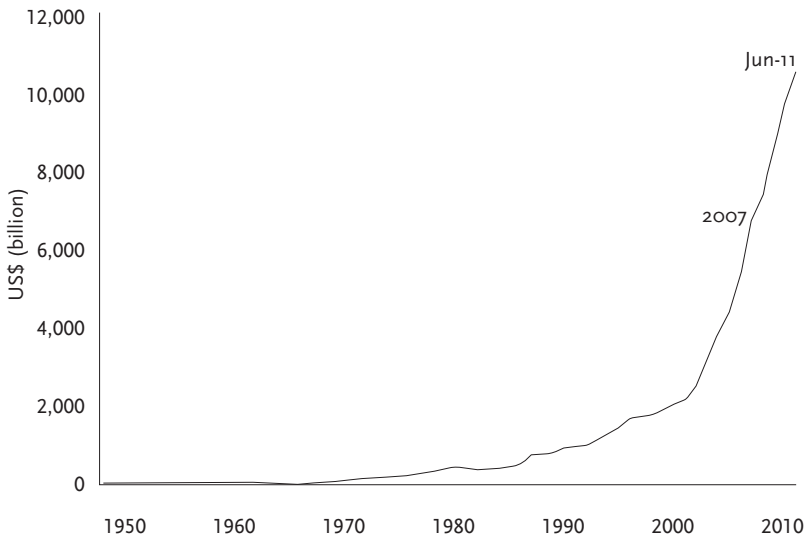
Source: Federal Reserve

From: *The New Depression*, Fig. 1.1, p. 2

*How would you define the chief features of 'creditisim'?*

First, an expanded role for the state. The US government now spends 24 per cent of GDP—one out of every four dollars. All the major industries are state subsidized, one way or another, and half the US population gets some sort of government support. Now, one can argue that capitalism was a 19th-century phenomenon that's been dead since World War One; but clearly, this is not how capitalism's supposed to function. Secondly, the central bank now creates the money and manipulates its value. Thirdly, and more interestingly, perhaps, the growth dynamic is entirely different now. Under capitalism, businessmen would invest, some would make a profit, which they'd save, in other words accumulate capital, and repeat: investment, saving, investment, saving. It was slow and difficult, but that was how economic growth worked. But for decades, the growth dynamic of the American economy, and hence increasingly the world economy as a whole, has been driven by credit creation and consumption. Total reserve assets had already swelled by almost 2,000 per cent between the end of Bretton Woods and the late 1990s (see Figure 1, p. 7 above). Since then, they've quintupled (Figure 6).

FIGURE 6: *Total World Foreign-Exchange Reserves, minus Gold, 1948–2011*

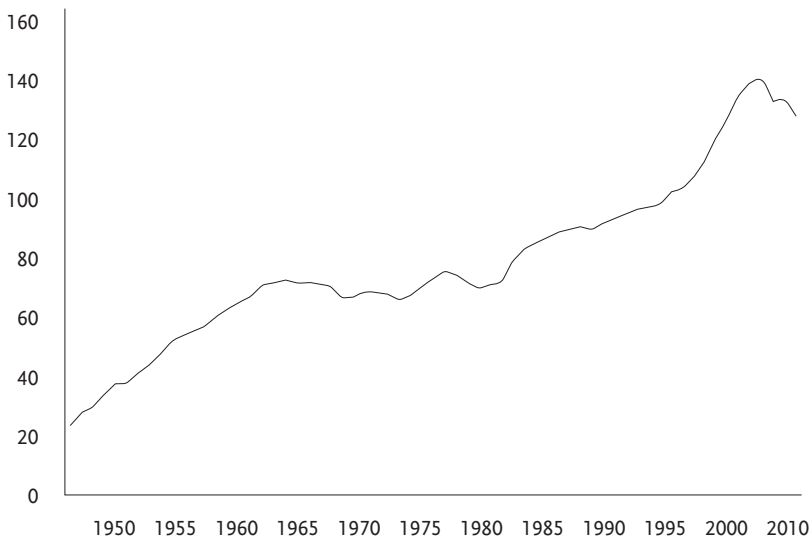


Source: IMF, *International Financial Statistics*  
 From: *The New Depression*, Fig. 5.9, p. 83

The problem is that ‘creditism’ can no longer create more growth because the US private sector can’t sustain any more debt. The ratio of household debt to disposable personal income was around 70 per cent, from the mid-60s to the mid-80s; since then, it soared to reach nearly 140 per cent in 2007, on the eve of the crisis (Figure 7). At the same time, median US income is declining and the level of owners’ equity as a percentage of household real estate has plunged to a record low (Figure 8). In 2010, American households owed \$13.4 trillion—92 per cent of US GDP (Table 1).

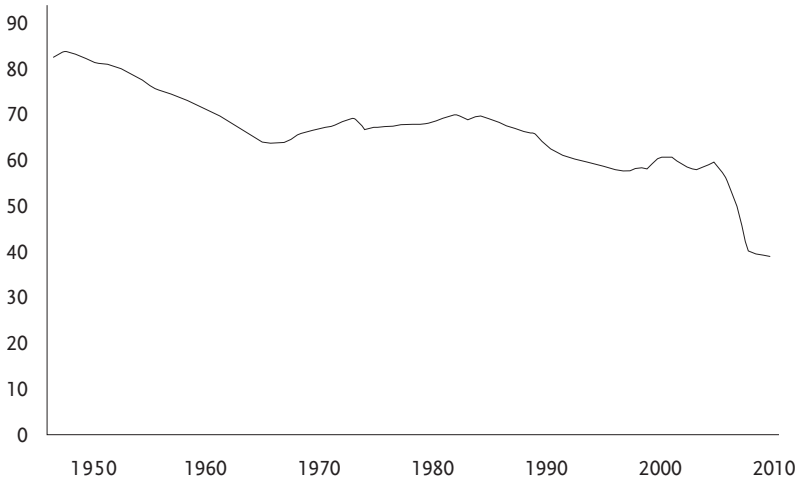
*May we press you a bit on this concept of creditism, as a successor to capitalism. Firstly, of course, agencies of credit—banks, factors, money lenders—existed in the 19th century, on quite a large scale. Secondly, capitalism itself has developed through a series of historical phases, but arguably it has never been entirely ‘pure’ and free from state support; it has always been ‘mixed’ to some degree and there have been times when capital was a good deal more constrained than*

FIGURE 7: US Household Debt as Percentage of Disposable Personal Income



Source: Federal Reserve, *Flow of Funds Accounts of the United States*, second quarter 2011, Table B.100. From: *The New Depression*, Fig. 6.3, p. 90

FIGURE 8: Owners' Equity as Percentage of US Household Real Estate



Source: Federal Reserve, *Flow of Funds Accounts of the United States, second quarter 2011*. From *New Depression*, Fig. 6.4, p. 91

TABLE I: US Debt by Sector, 2010

	Debt owed in \$ trillion	% of total debt	% of GDP
Household sector	13.4	25	92
Financial sector	14.2	27	98
Corporate sector	7.4	14	51
Noncorporate businesses	3.5	7	24
Federal government	9.4	18	65
State and local government	2.6	5	18
Miscellaneous others	2.1	4	14
Total credit market debt	52.6	100	363

Source: Federal Reserve, *Flow of Funds Accounts of the United States, second quarter 2011*. From *New Depression*, Fig. 6.2, p. 89

*it is today. Nineteenth-century American capitalism was protected by high tariff walls and aided by US military expansionism, conquering territory and resources—iconically, the US Cavalry massacring the indigenous Americans, to clear the way for the railroads. Unprofitable sectors of American industry may be heavily subsidized today, but isn't it precisely capitalism in general—however wrecked in parts—that Federal funds are supporting? There seems to be an argument for retaining the classical concept, which has been a trusty tool of analysis for both left and right, as long as the broad relations of private capitalist ownership and wage labour still persist. 'Creditism' may be a corruption of capitalism, but isn't capitalism still there, underneath?*

Yes and no. In the US, at the biggest level, it's not, because every major industry is subsidized one way or another, by the government—all the manufacturing that's still there, much of it related to military spending. All the hospitals and pharmaceutical companies benefit from Medicare and Medicaid. The universities also get subsidies from the government in the medical and military industry. Farmers get subsidies from the government. Price levels are still generally determined by market forces, but government spending directs those market forces—at the bottom, they allow the price system to work, but at the top level it's all directed and supported by government spending. I think that the biggest impediment to fixing this crisis is the misconception that we *have* a capitalist economy. Fox News watchers in America all think, red, white and blue, we're a capitalist economy, the government is evil and there's nothing it can do that would help the situation.

They don't understand what a large role the government plays—and that if government spending is reduced, the economy immediately collapses. I think it would help if they understood that we don't have capitalism to begin with, we have a different kind of economy now. This is not a crisis of capitalism, it's a crisis of creditism, and we have to work with the system that we have. And while it would be nice to rein in the bankers, if you rein them in too hard it's going to blow up the whole system—the banks are so worthless that the losses would be enormous, if they were actually exposed; all the savings in the world would be destroyed as the banking sector failed. Creditism as a system requires credit growth to survive, and only the government can provide the credit growth now—the private sector can't bear any more debt.

*So there's a polemical character to the concept of creditism, in the sense that it's targeted at a policy level?*

Right. And I would like to persuade not only policy-makers, but the general public as well. It's not impossible to swing public opinion away from where it is now, which is stuck in a very boring debate between austerity and Keynesianism, neither of which, as it's presented, makes any sense whatsoever.

*Another term that's been applied to this latest stage is 'financialization', or financialized capitalism, and it would be interesting to know how you'd compare that to creditism. It's been suggested that, as the momentum of the American economy began to falter, the government stepped in in the 1990s with a form of privatized Keynesianism, or asset-price Keynesianism: that credit was used, in other words, to maintain the level of demand when it threatened to flag, rather than the big public programmes of classical Keynesianism.*

I think that's probably true, if you look at the way Alan Greenspan encouraged the expansion of credit and the way they all denied there was any kind of bubble: that benefited the bankers and the policy-makers, but it also benefited the people, as long as everything was expanding, because this was against the background of increasing globalization, which put strong downward pressure on US wages. The way to buy off the voting public, who were losing their jobs and not seeing any wage increases, was to make their asset prices go up—their houses increased in value, so they could spend more even if their wages didn't go up. This worked very nicely for ten or fifteen years, and the authorities seem to have wanted to keep it going even longer—but bubbles always have to pop, in the end. So yes, I think that's probably right, though it's hard to know whether this was actually what was planned or whether it just evolved that way, as it could have done, because that was the easiest way to go.

But it's worth emphasizing that the credit expansion in the US from the 1990s on couldn't have taken place without the disinflationary impact of manufactured imports from extremely low-wage economies: low inflation permitted low interest rates. The scale of the income gap is enormous: Mexican GDP per capita is around 20 per cent of the US rate; Chinese GDP per capita is only 11 per cent. But another effect of globalization

was that the expansion of credit was beginning to produce diminishing returns in economic growth in the US, well before the 2008 crisis. In *The New Depression* I show how total credit growth has correlated with economic growth in the US since the 1950s (Figure 9). Whenever total credit expanded by less than 2 per cent, the US economy fell into recession—or nearly did, in 1970. But from the early 1980s, the difference between the two growth rates became much more pronounced: total credit soared, but economic growth continued to weaken, cycle by cycle, apart from a slight increase during the late 90s ‘new economy’ boom. Part of the explanation for this must be that while credit growth did stimulate demand, that demand was largely met by imports, so there was little of the multiplier effect that US production would have achieved.

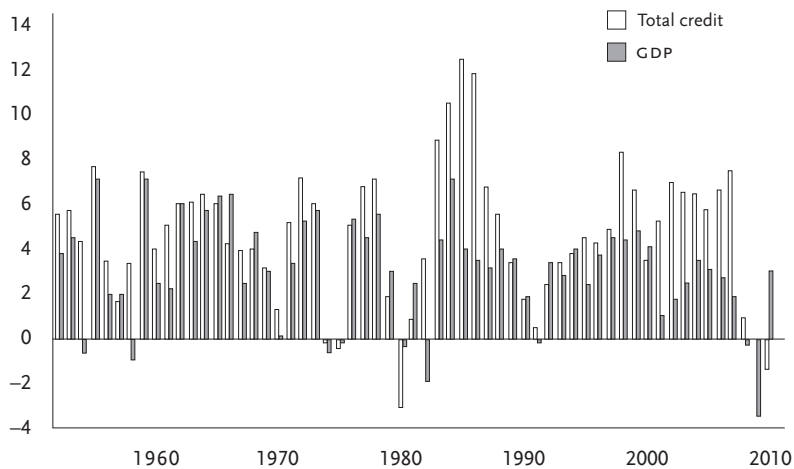
On top of this, the excess productive capacity created by years of credit expansion and capital misallocation has been a further disinflationary factor. It’s easy to increase aggregate supply in an economy: simply increase the flow of credit to the manufacturing sector—this is what happened with the ‘new economy’ boom in the United States (Figure 10). But once industrial capacity is put in place, it doesn’t go away again just because demand for its products doesn’t keep up; instead, excess capacity puts a downward pressure on the price of goods, even as capacity utilization slackens. It’s much more difficult to increase aggregate demand, which is ultimately linked to the public’s purchasing power. Over the past thirty years, the expansion of credit has produced a vast expansion in global industrial productive capacity—witness the Pearl River Delta—but the purchasing power of the world’s population has not risen at anything like the same pace. So we’re facing a glut of industrial capacity on a world scale.

*In The Dollar Crisis you suggested a radical solution to the problem of aggregate global demand . . .*

One of the cures I suggested was a global minimum wage, starting with raising the wages of Chinese workers in foreign-owned factories by a dollar a day, every year—it wouldn’t break Apple or Foxconn. To be diplomatic, I suggested that the poor developing countries could form a labour cartel, the way that OPEC has formed an oil cartel; but in reality that wouldn’t work—everyone would cheat. The most effective way to make it happen would be for the US Treasury Secretary to go on TV and announce to the world: if you cannot prove to us that you pay your

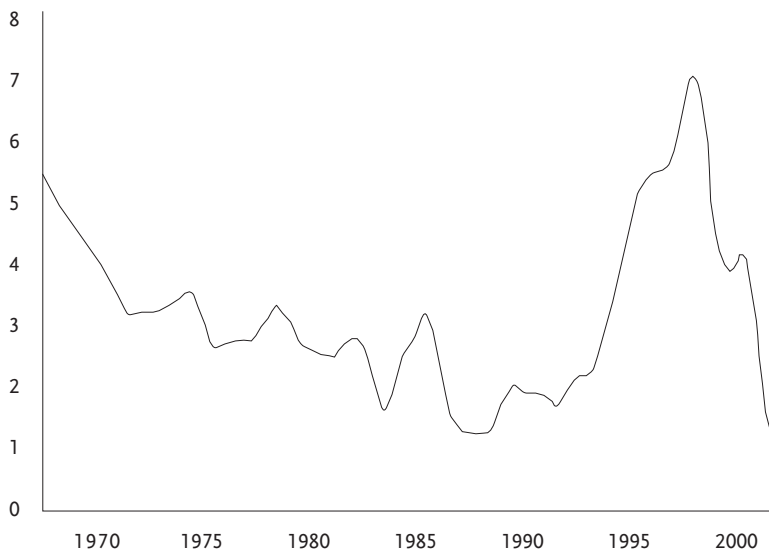


FIGURE 9: Percentage Change in Total Credit and GDP, 1952–2010



Source: Federal Reserve, *Flow of Funds Accounts of the United States*; Bureau of Economic Analysis. From *New Depression*, Fig. 6.I, p. 86

FIGURE 10: US Industrial Capacity, Percentage Change, 1968–2002



Source: Federal Reserve Statistics, *Industrial Production*. From *Dollar Crisis*, Fig. 8.17, p. 162

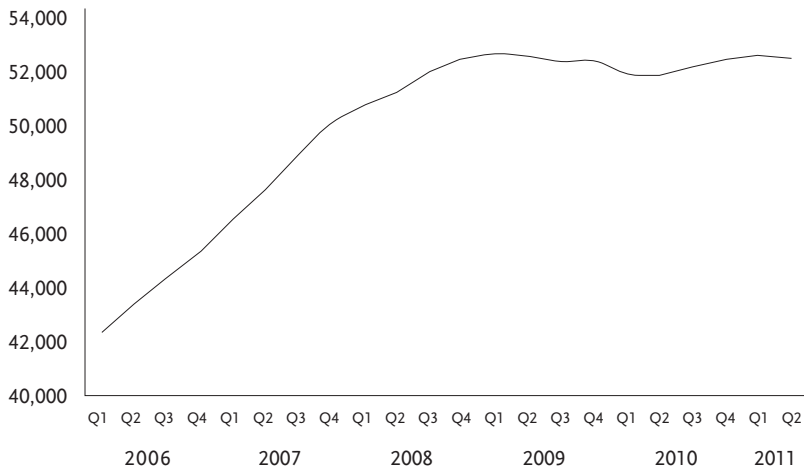
workers six dollars a day, instead of five, then we're going to put a 20 per cent tariff on your imports. And we're going to ask the workers to report on whether it's really being paid. That was written ten years ago, and if it had been implemented, by now the minimum wage would have tripled, from five dollars to fifteen, and that would have created much more aggregate demand to absorb all of this excess capacity.

So yes, it's crucial to find a way to increase purchasing power at the bottom of the pyramid—otherwise the world economy will be heading back to what it was like at the beginning of the industrial revolution, when workers only earned subsistence wages and couldn't afford to buy what they were making. In a sense, that's the world economy in the age of globalization. As new manufacturing countries enter the world market, especially China, the ability to produce has skyrocketed; but wages don't go up anymore. They're going down in the West, and demographic trends, the sheer numbers of young people looking for jobs, don't let them go up quickly enough in developing countries. That's at the core of the global crisis. For a good fifteen or twenty years, that gap was filled by inflating US asset prices, which allowed the Americans to withdraw equity and spend it, consume with it, to import and to fill the gap that couldn't be filled with normal wage income. But now that game seems to be over. Americans can't sustain any more debt; home prices have dropped 34 per cent, on average, across the US. The only thing that's filling the gap is government spending—that's all that's preventing the US from spiralling into depression.

*What have been the US government's aims in handling the crisis? How would you assess its policies to date?*

The aim of US government policy has been to perpetuate the credit expansion, to prevent a collapse. So far it's more or less been able to sustain the level of total credit market debt (Figure 11). It's done so by racking up around \$5 trillion in budget deficits, which it probably wouldn't have been able to finance if the Federal Reserve had not printed \$2 trillion dollars and injected that into the economy. Initially, in 2007 and 2008, the financial sector bail-out and the \$787 billion stimulus for the economy were funded by selling government bonds. But that initial round of support for the financial sector already cost around \$1 trillion—some \$544 billion in loans to US banks, \$118 billion to Bear Stearns and AIG, \$333 billion to the Commercial Paper Funding Facility and more. So the Fed

FIGURE II: Total Credit Market Debt, \$ billions, 2006–2011



Source: Federal Reserve, *Flow of Funds Accounts of the United States, second quarter 2011*. From *New Depression*, Fig. 5.1, p. 65

began its policy of quantitative easing in November 2008. Of course, QE is a euphemism for fiat money creation: the ‘quantity’ refers to the amount of money in existence, and ‘easing’ means creating more—‘easing’ liquidity conditions. The first round, QE1, was mostly used to relieve the banks and other institutions of mortgage-backed securities. It was expanded in March 2009, from a \$600 billion to a \$1.75 trillion money-printing programme, through to March 2010. As soon as it stopped, the US economy entered its ‘soft patch’, in summer 2010. By August 2010 Bernanke was hinting at another round, and QE2 was formally announced that November, to run till June 2011. This time the Fed printed \$600 billion, which it mostly used to buy government bonds, to fund the budget deficit. With some differences, the same course has pretty much been followed by the ECB and the Bank of England, on a smaller scale.

Given the nature of the debate around the budget deficit in the US, it’s important to stress what the alternative would have been if governments had not jumped in. Total credit would have begun contracting in 2008, when the private sector could no longer cover the interest payments on its debt, and the sort of debt–deflation spiral that Irving Fisher

described would have taken hold. The US economy would have already collapsed into a new Great Depression, and with it, the rest of the world. The size of the American economy in GDP is about \$16 trillion, and the US budget deficit is \$1.3 trillion. So if the government had balanced the budget in 2009—if there had been a balanced-budget constitutional amendment, for example—it would have shrunk to being a \$14.7 trillion economy. There would have been an immediate contraction of 13.5 per cent, but with a large multiplier effect, because unemployment would skyrocket, consumption would drop, business profits would plummet and the economy would go into a sharp downward spiral. Now, the argument against huge budget deficits under Bretton Woods or on the gold standard was that government borrowing on such a scale meant pushing up interest rates and crowding out the private sector. But that's not the case any more. In today's world, there's no limit to the amount of money that governments can create—or so it seems. Even though the US has trillion-dollar budget deficits, interest rates are at a historic low; the ten-year bond yield in the US is 1.5 per cent. Never lower. Today, if the US government cuts its spending, there's no offsetting benefit of lower interest rates—however much government spending is cut by, the economy simply contracts by that amount.

*What's been the impact of quantitative easing on the economy as a whole?*

The most important short-term effect has been to allow government spending to support the economy while keeping interest rates low. Another aspect, with QE1 in particular, was that the government bought up toxic assets, like the debt issued by Fannie Mae and Freddie Mac. That allowed the financial sector to deleverage by \$1.75 trillion, as it swapped mortgage-backed securities for cash. It didn't work that way in Britain, because the Bank of England didn't buy assets like that from the banking system, it only bought government bonds. So the British financial sector is still very highly leveraged, whereas in the US it is much less leveraged than it was. Thirdly, every round of quantitative easing drives up the stock market and commodity prices (Figure 12). To some extent higher stock prices create a positive wealth effect, which supports the economy; some sectors will benefit from higher food prices—Mid-West agribusiness, for example—but it's bad for American consumers; the same goes for the rising price of oil.

FIGURE 12: Dow Jones Industrial Average, 2008–2011



- |                                    |   |
|------------------------------------|---|
| 1. QE1 announced, 25 November 2008 | 4. QE2 hinted at on CNBC, end August 2010 |
| 2. QE1 expanded, 18 March 2009     | 5. QE2 end, 30 June 2011                  |
| 3. QE1 end, 31 March 2010          |   |

Source: St Louis Federal Reserve. From *New Depression*, Fig. 5.3, p. 72

Since around 2011, I'd say the costs of QE have been starting to overtake its benefits, which are subject to diminishing returns. Quantitative easing has created food-price inflation that is very harmful for the two billion people who live on less than \$2 a day. I've read that global food prices went up 60 per cent during QE2, and this was one of the factors that sparked off the Arab Spring. The oil-price spike has been very negative for the US economy; the 2011 slowdown in US consumption was due to higher food and oil prices. It comes back to the old quantity theory of money: if you increase the quantity of money, prices go up. So far, this has barely affected manufactured goods because of the huge deflationary impact of globalization and the 95 per cent drop in the marginal cost of labour that it's brought. So we don't see any CPI inflation, because of this offsetting deflationary force. But food prices have gone up everywhere. If the dollar price of food goes up—if rice prices go up in dollars—then rice prices go up everywhere in the world, because otherwise they'd just sell into the dollar market. So if US rice prices go up, Thai rice prices go up. And when the Fed prints dollars, food prices go up. That's the main

drawback, the one real big problem of QE—otherwise it'd be a great thing: print money, make the stock market go up, everybody's rich and happy. But it has this impact of creating food-price inflation.

*What effect has it had on profits and investment? US business profits have been hitting 15 per cent this year, according to the Economist, but corporations seem to be sitting on cash mountains that aren't being used.*

Yes, profits are very high, first of all because labour is getting a lower and lower share. Also, as a percentage of GDP, US corporate tax last year was the lowest it has been since the 1950s. In total, the tax revenue for the country as a whole was under 15 per cent of GDP, which is, again, the lowest since the 1950s. So, yes, corporate profits have been exceptionally good, although this quarter, suddenly everyone's concerned that they may be dropping. But there's a fundamental problem: there are no viable investment opportunities. So much credit has been expended and so much capacity built that we already have too much of everything relative to the amount of income, as it's currently distributed, to absorb it. If you invest more, you're going to lose your money; if you take your corporate cash-flow every year and buy government bonds, you can preserve your money for a better day—but that helps push down bond yields to these historic low levels. That's why, even in Japan, after two decades of massive fiscal deficits, the ten-year government bond yield is only 0.8 per cent; in Germany, it's 1.2 per cent; US, 1.5 per cent; UK, around 1.6 per cent. They've never been lower, and this is part of the reason. When bubbles pop, there's no place to invest the money profitably, so it's better to put it in government bonds.

*What are the options, over the longer term?*

I think there are three ways forward for the US economy—three paths policy makers could take. Option one is what the libertarians and Tea Party people want: balance the budget. That would result in immediate depression and collapse, the worst possible scenario. The second option is what I call the Japan model. When Japan's great economic bubble popped twenty-two years ago, the Japanese government started running very large budget deficits, and have done that now for twenty-two years. The total amount of government debt to GDP has increased from 60 per cent to 240 per cent of GDP. That's effectively what the US and British governments are doing now: running massive budget deficits to keep

the economy from collapsing. They can carry on doing this for another five years with very little difficulty, and maybe even for ten years. The US government debt is only 100 per cent of GDP, so they could carry on for another five years and still not hit 150 per cent. But though it's not clear how high it can go, it can't go on forever. Sooner or later—say, ten or fifteen years from now—the US government will be just as bankrupt as Greece, and the American economy will collapse into a new Great Depression. So, that's option two. It's better than option one, because it's better to die ten years from now than to die now; but it's not ideal.

Option number three is for the US government to keep borrowing and spending aggressively, as they're doing now, but to change the way they spend. Rather than spending it on too much consumption, and on war, for instance—the US government has so far spent \$1.4 trillion invading Iraq and Afghanistan—they should invest it; not just in patching up the roads and the bridges, but invest it very aggressively in transformative 21st-century technologies like renewable energy, genetic engineering, biotechnology and nanotechnology, on a huge scale. The US government could put a trillion dollars into each of these industries over the next ten years—have a plan to develop these new sectors. A trillion dollars, let's say, in solar energy over the next ten years: I'm not talking about building solar panels for sale in the market; I'm talking about carpeting the Nevada desert with solar panels, building a grid coast-to-coast to transmit it; converting the automobile industry to electricity, replacing all the gas stations with electric charging stations, and developing new technology to make electric cars run at 70 miles an hour. Then, ten years from now, the US will have free, limitless energy. Trade will come back into balance, because we won't have to import any foreign oil, and the US will be able to spend \$100 billion less a year on the military, because it won't have to defend Gulf oil. The US government could tax the domestically generated electricity, and help bring down the budget deficit; and the cost of energy to the private sector would probably fall by 75 per cent—that in itself could set off a wave of private-sector innovation that would generate new prosperity.

If the US government invested a trillion dollars in genetic engineering, it's probable they could create medical miracles: a cancer cure, or ways to slow the metabolic processes of ageing. We need to think in terms of peace-time Manhattan Projects: bring together all the best brains, the best technology, set them targets; use 'creditisim' to produce results. We

can all now see the flaws in creditism—they're obvious. But as a society, I think the US is overlooking the opportunities that exist within this new economic system—the opportunity for the government to borrow massive amounts of money at 1.5 per cent interest and invest it aggressively in transformative technologies that restructure the US economy, so that it can get off its debilitating dependence on the financial sector, which has developed into a giant Ponzi scheme, before it all collapses. If not, then the US economy is likely to go down sooner or later into a lethal debt–deflation spiral.

*Presumably this 'creditist' strategy could only apply to the US economy, though?*

Not necessarily. For example, the Bank of England has printed so much money to buy up government bonds that it now owns more than a third of Britain's entire debt. Now, it didn't cost the Bank a single penny to buy all those bonds—it didn't even have to buy any paper or ink to print the money; it's all electronic now. So why not just cancel them? It wouldn't cost anybody a thing; even if somehow it bankrupted the Bank of England, it could just print more money to recapitalize itself. Overnight, Britain would have a third less outstanding government debt and its credit rating would improve enormously. The government would announce that it was going to take advantage of this historic opportunity to increase government spending and invest it in new industries, so that Britain can finally wean itself off its debilitating dependence on Ponzi finance and develop manufacturing industries again. For example: throw \$100 billion at Cambridge to invest in genetic engineering over the next three years, to become the dominant genetic-technology force on earth. Meanwhile create jobs and fix the infrastructure, at the same time.

*But wouldn't these new industries be subject to the same relative lack of aggregate demand?*

Well, there would be no lack of demand for a molecular therapy that slows down ageing or cures a killer disease. The point would be to aim for technological breakthroughs that are completely transformative, like the agricultural technological revolution in the 1960s that changed the nature of global food production. In some respects this is an unprecedented opportunity because of the amount of money that governments



could invest now, when interest rates are at such low levels. If they directed them into transformative technologies, they could create markets for products that just don't exist at all now, where there would be demand. If we could actually shift the US economy from oil to solar, that would free up a lot of money that could be spent on other things. Polemically, if you like, the point is to stress that we can't just wait for an old-fashioned cyclical recovery—it's not going to come. We have a new kind of economic system, and either we master this system and take ultimate advantage of its opportunities to borrow and invest, or else it collapses into a severe depression, unwinding a \$50 trillion expansion of credit. It's going to be at least as bad as the 1930s.

*In 2003 you called the Chinese economy a bubble waiting to pop. How do you see it today?*

An even bigger bubble waiting to pop. When I wrote *The Dollar Crisis*, China's trade surplus with the US was \$80 billion a year; now it's \$300 billion a year, but the US can't keep expanding its trade deficits, and that means China's trade surplus is going to flatten out, creating a much more difficult environment there. In 2009, when the trade surplus corrected quite significantly, the headline was: 20 million factory workers lose their jobs and head back home to the countryside to grow rice. That almost popped the whole bubble then and there. The Chinese government's policy response was to let Chinese banks increase total system bank loans by 60 per cent over the next two years. As a result of this massive stimulus, everybody borrowed money and property prices soared. But now, three or four years on, no one can repay the money, the banking system must be on the verge of collapse—although officially, non-performing loans are reported to be extremely low—and will have to be bailed out by the government. The whole China model is in serious trouble: they've been expanding industrial production by 20 per cent a year for decades, and now there's massive excess capacity in every sector. The Americans can't buy any more of it, and 80 per cent of the Chinese earn less than \$10 a day, so they can't buy what they're making in their own factories. If they continue expanding their industrial production, the problem is only going to get worse. I think they're going to have to follow the Japan model as well, and have very big government budget deficits to keep the economy from collapsing into a depression; if they do that aggressively, in a best-case scenario China can perhaps achieve 3 per cent growth a year on average for the next ten years.

*Nevertheless, there is a potential market for first-generation purchases of cars and washing machines that's still to be realized, on a massive scale—hundreds of millions of people. Isn't that still ahead?*

Not necessarily, unless Chinese wages go up—because people who earn \$10 a day can't afford a washing machine; even if they could, their flat wouldn't be big enough to fit a washing machine. And the challenge is, if Chinese wages ever went to the astronomical level of \$15 a day, then there are 500 million people in India who will work for \$5 a day, and the jobs will move there. So there's a real danger of a race to the bottom, unless we can agree on a global minimum wage.

*How do you see the current state of the US banking sector? In August this year the New York Times was sounding the alarm about the fact that the cartel of the big banks was the sole regulator for the \$700 trillion derivatives market, although it seems to have fallen silent again now.*

One way of approaching this is, whoever creates the wealth has the political power. Under feudalism, power lay with the landed aristocracy. Under industrial capitalism, the captains of industry controlled political power. But in the last few decades, wealth in the US has come from credit creation. As bankers created more and more wealth, they became increasingly influential, politically; by the late 1990s they were unstoppable. First they repealed Glass–Steagall and then, the following year, they passed something called the Commodity Futures Modernization Act, which removed the regulations from the derivatives market and allowed them to trade over the counter with almost no regulation whatsoever. Since 1990, the total amount of derivatives contracts has increased from \$10 trillion, which was already a very big number, to \$700 trillion—the equivalent of \$100,000 per person on earth, or global GDP for the last twenty years combined. There is nothing in the world you can hedge with that many derivatives contracts; the system has become increasingly surreal. You can imagine how much profit the banks make from \$700 trillion—first from creating the derivatives, then from trading them and using them for structured finance.

Derivatives are basically used as gambling vehicles: you can gamble on the direction of interest rates or commodities, or anything else; if you actually want to hedge something, you can take out insurance by hedging it that way. But most of the trading is not between the real sectors of

the economy; around two-thirds of it is done between the banks themselves. Ninety per cent of derivatives contracts trade over the counter, which means no regulator can see what's going on; but 10 per cent of them do trade through exchanges, so we know something about them. The last time I looked, the average daily turnover for that 10 per cent—the amount they changed hands for, every day—was \$4 trillion. Now, if the other 90 per cent traded as much—and it could be more, it could be less, I don't know—that would be something like \$40 trillion of turnover a day. If there were even a very tiny tax on each of these derivatives transactions, the government would have an enormous source of revenue, a tax that other people wouldn't have to pay. Most of the trading is done in London and New York, so there's no problem about relocation—the threat that all this business will move to China; the Chinese don't let their banks do crazy things like this. Every major accounting scandal for the past twenty years—Fannie Mae, Freddie Mac, General Electric—has involved structured finance, with the culprits using derivatives to manipulate their accounts to avoid paying taxes; the bankers make a big fee on that. Given what we know about unregulated markets and the incentive structure of the banking industry, it seems unlikely that in this \$700 trillion unregulated market there wouldn't be every kind of fraud and shenanigan taking place. If you were a major oil-producing Gulf state, for example—not to name names—why would you not manipulate the price of oil, with the help of one of the large US investment banks and/or one of the major oil multinationals, when no one can see what you're doing? You write contracts that push up the oil price, and the futures price pulls up the spot price. Most of the commodities are probably being manipulated this way, oil being the most obvious one.

*Didn't the Dodd–Frank law aim to put an end to over-the-counter derivatives trading?*

Dodd–Frank required the banks to put all the derivatives through exchanges by the middle of 2011—more than a year ago. But it keeps getting pushed back to some unspecified date in the future. Somewhere along the way, the regulators may have realized that, if you actually put them all through exchanges, it would reveal such a degree of fraud and corruption that the whole system would implode. The actual net worth of the banks could turn out to be something like minus \$30 trillion—that's why they don't break them apart; they're too big to fail, because they're too bankrupt for the government to take them on. They should

be made to trade through exchanges and also to have proper margins on both sides, just like when people have an account with a stock broker; it's okay to borrow money, but you have to have a certain degree of margin; and then, if anyone gets in trouble, they have enough margin to cover their losses or cut their positions. As it is now, there's no exchange, so there's no transparency—no one can see who's doing what or why—and there are no margins. The industry complains that having to put up margins will be so expensive, it will damage their business. It's like saying, I have to pay health insurance and I have to insure my house, that damages my business—but that's the price of insurance. You don't have insurance for free, you have to pay for it. But, of course, the industry is fighting this tooth and nail, because if they can no longer create more credit, because the private sector can't take on more debt; and if they're actually forced to stop proprietary trading on their own accounts, as the Volcker Rule requires; and if they are forced to put their derivatives through exchanges—then suddenly they will not be the major source of wealth-creation anymore, and their hold on political power will be greatly weakened. They are desperately trying to maintain their wealth-creating abilities in a very difficult environment. Creditism is much less stable, or sustainable, than industrial capitalism—and it seems to be teetering on the edge of collapse.

*So there's no hope that banking legislation will reform the sector? You'd argue that the banking system has to be propped up, because it would be such a global disaster if it was restructured?*

I wouldn't say I'm entirely hopeless about it, but it's very difficult, because they'd have to find a way to restructure the banking system that doesn't cause it to collapse completely, and I'm not sure there is such a formula. I don't know what's going to happen to the banking system. It's not clear how they're going to make any profits if they can't continue to increase credit and can't expand the unregulated portion of the derivatives market at an exponential rate anymore. The problem is that if the banking system went down, it would destroy so much credit that everything would collapse, just as it collapsed when the money supply was destroyed in 1930 and 31. Now it's the credit supply that the policy-makers are determined not to allow to contract, for the same reason. So I don't think any of the European banks are going to be allowed to fail. In November 2011 there was a lot of talk about the French banks going under, but it was clear that either the ECB or the IMF would bail them

out. Or else, if no one else, the Fed would bail out Société Générale (for instance)—because if Soc Gen falls, Deutsche Bank's going to fall, and then J. P. Morgan. They're all going to fall together. So you might as well just bail out Soc Gen—it'll be a whole lot cheaper than the Fed trying to bail out everybody. They have no choice. Sure enough, the ECB did a back-flip, printed a trillion new euros, and bailed everybody out. That's what they're going to continue to do as long as they can do it, because otherwise they know we're going to collapse into the 1930s.

*Working out positive and negative forms of creditism—this seems to be the crux of what you're saying. This is the system we've got, but what we have to do is take control of it, and submit it to debt-forgiveness programmes and rational investment strategies that have a promise of being productive.*

Exactly right. I think we can do better this time.