## THE ECONOMIC CRISIS

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## The Book of Jobs

Forget monetary policy. Re-examining the cause of the Great Depression—the revolution in agriculture that threw millions out of work—the author argues that the U.S. is now facing and must manage a similar shift in the "real" economy, from industry to service, or risk a tragic replay of 80 years ago.

By Joseph E. Stiglitz



It has now been almost five years since the bursting of the housing bubble, and four years since the onset of the recession. There are 6.6 million fewer jobs in the United States than there were four years ago. Some 23 million Americans who would like to work full-time cannot get a job. Almost half of those who are unemployed have been unemployed long-term. Wages are falling—the real income of a typical American household is now below the level it was in 1997.

We knew the crisis was serious back in 2008. And we thought we knew who the "bad guys" were—the nation's big banks, which through cynical lending and reckless gambling had brought the U.S. to the brink of ruin. The Bush and Obama administrations justified a bailout on the grounds that only if the banks were handed money without limit—and without conditions—could the economy recover. We did this not because we loved the banks but because (we were told) we couldn't do without the lending that they made possible. Many, especially in the financial sector, argued that strong, resolute, and generous action to save not just the banks but the bankers, their shareholders, and their creditors would return the economy to where it had

been before the crisis. In the meantime, a short-term stimulus, moderate in size, would suffice to tide the economy over until the banks could be restored to health.

The banks got their bailout. Some of the money went to bonuses. Little of it went to lending. And the economy didn't really recover—output is barely greater than it was before the crisis, and the job situation is bleak. The diagnosis of our condition and the prescription that followed from it were incorrect. First, it was wrong to think that the bankers would mend their ways—that they would start to lend, if only they were treated nicely enough. We were told, in effect: "Don't put conditions on the banks to require them to restructure the mortgages or to behave more honestly in their foreclosures. Don't force them to use the money to lend. Such conditions will upset our delicate markets." In the end, bank managers looked out for themselves and did what they are accustomed to doing.

Even when we fully repair the banking system, we'll still be in deep trouble—because we were already in deep trouble. That seeming golden age of 2007 was far from a paradise. Yes, America had many things about which it could be proud. Companies in the information-technology field were at the leading edge of a revolution. But incomes for most working Americans still hadn't returned to their levels prior to the previous recession. The American standard of living was sustained only by rising debt—debt so large that the U.S. savings rate had dropped to near zero. And "zero" doesn't really tell the story. Because the rich have always been able to save a significant percentage of their income, putting them in the positive column, an average rate of close to zero means that everyone else must be in negative numbers. (Here's the reality: in the years leading up to the recession, according to research done by my Columbia University colleague Bruce Greenwald, the bottom 80 percent of the American population had been spending around 110 percent of its income.) What made this level of indebtedness possible was the housing bubble, which Alan Greenspan and then Ben Bernanke, chairmen of the Federal Reserve Board, helped to engineer through low interest rates and nonregulation—not even using the regulatory tools they had. As we now know, this enabled banks to lend and households to borrow on the basis of assets whose value was determined in part by mass delusion.

The fact is the economy in the years before the current crisis was fundamentally weak, with the bubble, and the unsustainable consumption to which it gave rise, acting as life support. Without these, unemployment would have been high. It was absurd to think that fixing the banking system could by itself restore the economy to health. Bringing the economy back to "where it was" does nothing to address the underlying problems.

The trauma we're experiencing right now resembles the trauma we experienced 80 years ago, during the Great Depression, and it has been brought on by an analogous set of circumstances. Then, as now, we faced a breakdown of the banking system. But then, as now, the breakdown of the banking system was in part a consequence of deeper problems. Even if we correctly respond to the trauma—the failures of the financial sector—it will take a decade or more to achieve full recovery. Under the best of conditions, we will endure a Long Slump. If we respond incorrectly, as we have been, the Long Slump will last even longer, and the parallel with the Depression will take on a tragic new dimension.

Until now, the Depression was the last time in American history that unemployment exceeded 8 percent four years after the onset of recession. And never in the last 60 years has economic output been barely greater, four years after a recession, than it was before the recession started. The percentage of the civilian population at work has fallen by twice as much as in any post-World War II downturn. Not surprisingly, economists have begun to reflect on the similarities and differences between our Long Slump and the Great Depression. Extracting the right lessons is not easy.

Many have argued that the Depression was caused primarily by excessive tightening of the money supply on the part of the Federal Reserve Board. Ben Bernanke, a scholar of the Depression, has stated publicly that this was the lesson he took away, and the reason he opened the monetary spigots. He opened them very wide. Beginning in 2008, the balance sheet of the Fed doubled and then rose to three times its earlier level. Today it is \$2.8 trillion. While the Fed, by doing this, may have succeeded in saving the banks, it didn't succeed in saving the economy.

Reality has not only discredited the Fed but also raised questions about one of the conventional interpretations of the origins of the Depression. The argument has been made that the Fed *caused* the Depression by tightening money, and if only the Fed back then had increased the money supply—in other words, had done what the Fed has done today—a full-blown Depression would likely have been averted. In

economics, it's difficult to test hypotheses with controlled experiments of the kind the hard sciences can conduct. But the inability of the monetary expansion to counteract this current recession should forever lay to rest the idea that monetary policy was the prime culprit in the 1930s. The problem today, as it was then, is something else. The problem today is the so-called real economy. It's a problem rooted in the kinds of jobs we have, the kind we need, and the kind we're losing, and rooted as well in the kind of workers we want and the kind we don't know what to do with. The real economy has been in a state of wrenching transition for decades, and its dislocations have never been squarely faced. A crisis of the real economy lies behind the Long Slump, just as it lay behind the Great Depression.

For the past several years, Bruce Greenwald and I have been engaged in research on an alternative theory of the Depression—and an alternative analysis of what is ailing the economy today. This explanation sees the financial crisis of the 1930s as a consequence not so much of a financial implosion but of the economy's underlying weakness. The breakdown of the banking system didn't culminate until 1933, long after the Depression began and long after unemployment had started to soar. By 1931 unemployment was already around 16 percent, and it reached 23 percent in 1932. Shantytown "Hoovervilles" were springing up everywhere. The underlying cause was a structural change in the real economy: the widespread decline in agricultural prices and incomes, caused by what is ordinarily a "good thing"—greater productivity.

At the beginning of the Depression, more than a fifth of all Americans worked on farms. Between 1929 and 1932, these people saw their incomes cut by somewhere between one-third and two-thirds, compounding problems that farmers had faced for years. Agriculture had been a victim of its own success. In 1900, it took a large portion of the U.S. population to produce enough food for the country as a whole. Then came a revolution in agriculture that would gain pace throughout the century—better seeds, better fertilizer, better farming practices, along with widespread mechanization. Today, 2 percent of Americans produce more food than we can consume.

What this transition meant, however, is that jobs and livelihoods on the farm were being destroyed. Because of accelerating productivity, output was increasing faster than demand, and prices fell sharply. It was this, more than anything else, that led to rapidly declining incomes. Farmers then (like workers now) borrowed heavily to sustain living standards and production. Because neither the farmers nor their bankers anticipated the steepness of the price declines, a credit crunch quickly ensued. Farmers simply couldn't pay back what they owed. The financial sector was swept into the vortex of declining farm incomes.

The cities weren't spared—far from it. As rural incomes fell, farmers had less and less money to buy goods produced in factories. Manufacturers had to lay off workers, which further diminished demand for agricultural produce, driving down prices even more. Before long, this vicious circle affected the entire national economy.

The value of assets (such as homes) often declines when incomes do. Farmers got trapped in their declining sector and in their depressed locales. Diminished income and wealth made migration to the cities more difficult; high urban unemployment made migration less attractive. Throughout the 1930s, in spite of the massive drop in farm income, there was little overall out-migration. Meanwhile, the farmers continued to produce, sometimes working even harder to make up for lower prices. Individually, that made sense; collectively, it didn't, as any increased output kept forcing prices down.

Given the magnitude of the decline in farm income, it's no wonder that the New Deal itself could not bring the country out of crisis. The programs were too small, and many were soon abandoned. By 1937, F.D.R., giving way to the deficit hawks, had cut back on stimulus efforts—a disastrous error. Meanwhile, hardpressed states and localities were being forced to let employees go, just as they are now. The banking crisis undoubtedly compounded all these problems, and extended and deepened the downturn. But any analysis of financial disruption has to begin with what started off the chain reaction.

The Agriculture Adjustment Act, F.D.R.'s farm program, which was designed to raise prices by cutting back on production, may have eased the situation somewhat, at the margins. But it was not until government spending soared in preparation for global war that America started to emerge from the Depression. It is important to grasp this simple truth: it was government spending—a Keynesian stimulus, not any correction of monetary policy or any revival of the banking system—that brought about recovery. The long-run prospects for the economy would, of course, have been even better if more of the money had been spent on investments in education, technology, and infrastructure rather than munitions, but even so, the strong public spending more than offset the weaknesses in private spending. Government spending unintentionally solved the economy's underlying problem: it completed a necessary structural transformation, moving America, and especially the South, decisively from agriculture to manufacturing. Americans tend to be allergic to terms like "industrial policy," but that's what war spending was—a policy that permanently changed the nature of the economy. Massive job creation in the urban sector—in manufacturing—succeeded in moving people out of farming. The supply of food and the demand for it came into balance again: farm prices started to rise. The new migrants to the cities got training in urban life and factory skills, and after the war the G.I. Bill ensured that returning veterans would be equipped to thrive in a modern industrial society. Meanwhile, the vast pool of labor trapped on farms had all but disappeared. The process had been long and very painful, but the source of economic distress was gone.

The parallels between the story of the origin of the Great Depression and that of our Long Slump are strong. Back then we were moving from agriculture to manufacturing. Today we are moving from manufacturing to a service economy. The decline in manufacturing jobs has been dramatic—from about a third of the workforce 60 years ago to less than a tenth of it today. The pace has quickened markedly during the past decade. There are two reasons for the decline. One is greater productivity—the same dynamic that revolutionized agriculture and forced a majority of American farmers to look for work elsewhere. The other is globalization, which has sent millions of jobs overseas, to low-wage countries or those that have been investing more in infrastructure or technology. (As Greenwald has pointed out, most of the job loss in the 1990s was related to productivity increases, not to globalization.) Whatever the specific cause, the inevitable result is precisely the same as it was 80 years ago: a decline in income and jobs. The millions of jobless former factory workers once employed in cities such as Youngstown and Birmingham and Gary and Detroit are the modern-day equivalent of the Depression's doomed farmers.

The consequences for consumer spending, and for the fundamental health of the economy—not to mention the appalling human cost—are obvious, though we were able to ignore them for a while. For a time, the bubbles in the housing and lending markets concealed the problem by creating artificial demand, which in turn created jobs in the financial sector and in construction and elsewhere. The bubble even made workers forget that their incomes were declining. They savored the possibility of wealth beyond their dreams, as the value of their houses soared and the value of their pensions, invested in the stock market, seemed to be doing likewise. But the jobs were temporary, fueled on vapor.

Mainstream macro-economists argue that the true bogeyman in a downturn is not falling wages but rigid wages—if only wages were more flexible (that is, lower), downturns would correct themselves! But this wasn't true during the Depression, and it isn't true now. On the contrary, lower wages and incomes would simply reduce demand, weakening the economy further.

Of four major service sectors—finance, real estate, health, and education—the first two were bloated before the current crisis set in. The other two, health and education, have traditionally received heavy government support. But government austerity at every level—that is, the slashing of budgets in the face of recession— has hit education especially hard, just as it has decimated the government sector as a whole. Nearly 700,000 state- and local-government jobs have disappeared during the past four years, mirroring what happened in the Depression. As in 1937, deficit hawks today call for balanced budgets and more and more cutbacks. Instead of pushing forward a structural transition that is inevitable—instead of investing in the right kinds of human capital, technology, and infrastructure, which will eventually pull us where we need to be—the government is holding back. Current strategies can have only one outcome: they will ensure that the Long Slump will be longer and deeper than it ever needed to be.

Two conclusions can be drawn from this brief history. The first is that the economy will not bounce back on its own, at least not in a time frame that matters to ordinary people. Yes, all those foreclosed homes will eventually find someone to live in them, or be torn down. Prices will at some point stabilize and even start to rise. Americans will also adjust to a lower standard of living—not just living within their means but living *beneath* their means as they struggle to pay off a mountain of debt. But the damage will be enormous. America's conception of itself as a land of opportunity is already badly eroded. Unemployed young people are alienated. It will be harder and harder to get some large proportion of them onto a productive track. They will be scarred for life by what is happening today. Drive through the industrial river valleys of the Midwest or the small towns of the Plains or the factory hubs of the South, and you will see a picture of irreversible decay.

Monetary policy is not going to help us out of this mess. Ben Bernanke has, belatedly, admitted as much. The Fed played an important role in creating the current conditions—by encouraging the bubble that led to unsustainable consumption—but there is now little it can do to mitigate the consequences. I can understand that its members may feel some degree of guilt. But anyone who believes that monetary policy is going to resuscitate the economy will be sorely disappointed. That idea is a distraction, and a dangerous one.

What we need to do instead is embark on a massive investment program—as we did, virtually by accident, 80 years ago—that will increase our productivity for years to come, and will also increase employment now. This public investment, and the resultant restoration in G.D.P., increases the returns to private investment. Public investments could be directed at improving the quality of life and *real* productivity—unlike the private-sector investments in financial innovations, which turned out to be more akin to financial weapons of mass destruction.

Can we actually bring ourselves to do this, in the absence of mobilization for global war? Maybe not. The good news (in a sense) is that the United States has under-invested in infrastructure, technology, and education for decades, so the return on additional investment is high, while the cost of capital is at an unprecedented low. If we borrow today to finance high-return investments, our debt-to-G.D.P. ratio—the usual measure of debt sustainability—will be markedly improved. If we simultaneously increased taxes—for instance, on the top 1 percent of all households, measured by income—our debt sustainability would be improved even more.

The private sector by itself won't, and can't, undertake structural transformation of the magnitude needed even if the Fed were to keep interest rates at zero for years to come. The only way it will happen is through a government stimulus designed not to preserve the old economy but to focus instead on creating a new one. We have to transition out of manufacturing and into services that people want—into productive activities that increase living standards, not those that increase risk and inequality. To that end, there are many high-return investments we can make. Education is a crucial one—a highly educated population is a fundamental driver of economic growth. Support is needed for basic research. Government investment in earlier decades—for instance, to develop the Internet and biotechnology—helped fuel economic growth. Without investment in basic research, what will fuel the next spurt of innovation? Meanwhile, the states could certainly use federal help in closing budget shortfalls. Long-term economic growth at our current rates of resource consumption is impossible, so funding research, skilled technicians, and initiatives for cleaner and more efficient energy production will not only help us out of the recession but also build a robust economy for decades. Finally, our decaying infrastructure, from roads and railroads to levees and power plants, is a prime target for profitable investment.

The second conclusion is this: If we expect to maintain any semblance of "normality," we must fix the financial system. As noted, the implosion of the financial sector may not have been the underlying cause of our current crisis—but it has made it worse, and it's an obstacle to long-term recovery. Small and medium-size companies, especially new ones, are disproportionately the source of job creation in any economy, and they have been especially hard-hit. What's needed is to get banks out of the dangerous business of speculating and back into the boring business of lending. But we have not fixed the financial system. Rather, we have poured money into the banks, without restrictions, without conditions, and without a vision of the kind of banking system we want and need. We have, in a phrase, confused ends with means. A banking system is supposed to serve society, not the other way around.

That we should tolerate such a confusion of ends and means says something deeply disturbing about where our economy and our society have been heading. Americans in general are coming to understand what has happened. Protesters around the country, galvanized by the Occupy Wall Street movement, already know.