

# THINKING ABOUT ECONOMICS

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## Toward a Progressive Macroeconomic Explanation of the Recession

Howard Sherman

*How can progressive economics explain a business cycle? It is time to resurrect better ways to think about business cycles and therefore the policies that can mitigate them. In this piece, the eminent economist Howard Sherman basically provides a course in how to think about the business cycle, in particular this one.*

IT IS ARGUED BELOW that the old, neoclassical macroeconomics failed in analysis and policy in the Great Recession of 2007–9, so there is a need for a progressive macroeconomics for analysis and policy. As a concrete example of the progressive macro approach, this article will present brief summaries of three hypotheses. First, the expansion

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is turned into a recession because profits are crushed by the declining growth rate of revenue and the rapid rise of cost. Second, recovery from recession comes when profit rises again due to the slowing of the decline in revenue and the more rapid decline in cost. Third, the depth and length of recession depends on long-run trends and movements in housing, finance, and the rest of the world.

If macroeconomics asserts that the economy best returns to full employment when left to itself, then no government action is needed. Progressive macroeconomics, however, asserts that the crisis and recession were due to the present economic institutions, so a government policy is urgently needed. Special emphasis is given in this article to control of the corporations that are too big to be allowed to fail and to a public option for jobs for the unemployed.

During the financial crisis from about October 2008 through March 2009, most neoclassical economists admitted that they were shocked by the deep recession and crisis (see, e.g., Greenspan 2008). In their model of the world, there are no internal reasons for a crisis or recession. There are some outside shocks, but these shocks are met by the self-regulating economy, which always automatically, through competition, ends up at equilibrium of full employment.

From 2007 through 2009, no one thought the economy was in equilibrium at full employment (see the criticism of the neoclassical view by Krugman 2009). The most important reaction was a masterful and devastating critique of all neoclassical macroeconomics by Paul Davidson (2009).

Davidson observes that neoclassical economics strongly supported the deregulation of the financial system that helped make the financial crisis so deep. It did this on the argument that those corporations could figure out, on the basis of past events, the exact probability of future financial conditions, using reasonable and rational expectations of future events. Therefore, firms could regulate themselves to prevent problems. Government interference would, therefore, be an outside shock that would worsen the situation and prevent equilibrium.

The neoclassical argument rests on the axiom that the future is completely knowable, at least in terms of statistical probabilities. This axiom, however, is not proven by any evidence; it is merely asserted as the necessary basis of science. In all other sciences, the basic axioms are generalizations from empirical data. Since the basic neoclassical axiom is not supported by any evidence or experiment, it is unscientific. The notion that corporations can know the future with certainty, based on a sophisticated and complex mathematics using unproven assumptions, is not a good basis for macroeconomics.

If the current dominant theory is incorrect, what can replace it? The foundations for a complete, progressive theory were laid by three economists who all worked in the Great Depression. They are John Maynard Keynes and the Post Keynesian tradition; Wesley Mitchell and the institutionalist tradition of Thorstein Veblen; and Michal Kalecki and the radical or neo-Marxist tradition. These three started very differently but have much in common on the main points of a progressive macroeconomics.

### **The Basic Framework—Keynes**

Besides destroying the neoclassical version of Say's law, Keynes created a new macroeconomics. Before Keynes, mainstream economics discussed individual consumers and capitalists in microeconomics, but after Keynes there were also aggregate variables in macroeconomics. Keynes emphasized that the barter-economy approach of J.B. Say and neoclassical economics was wrong and substituted a monetary and credit economy (see the clear, detailed explanation in Davidson 2009).

The Keynesian aggregates began with gross domestic product (GDP) equal to spending through consumption plus investment plus government plus net exports. In the Keynesian view, this equality may hold below full employment, which is contrary to the neoclassical view that still is taught today. It is Keynes's rigorous explanation of the possibility of lasting recession and mass unemployment in a capitalist system that is rejected by neoclassical economists. Neoclassicals

still hold a version of Say's law, no matter how this is disguised in complex mathematics.

### **The Empirical Foundation—Mitchell**

Wesley Mitchell was president of the National Bureau of Economic Research and president of the Econometrics Society. In all of his articles and books, he attempted to show a macroeconomic reality that is not an assumed smooth advance at full employment, but the actual facts of a fundamentally cyclical macroeconomy (Mitchell 1951). Any macroeconomics that begins from a full employment equilibrium deduced from abstract assumptions is useless. (For a discussion and citation of Mitchell's main works, with his contribution to theory as well as empirical work, see Sherman 2001.)

Mitchell is the first economist who does not build his business cycle theory on speculation but on a massive accumulation of fact, like any other science. His method of presentation and analysis of the data in nine stages of the cycle is still the clearest road to understanding the cycle. The fact that neoclassical economics does not teach Mitchell's method is a sad comment on their rejection of the reality of the endogenous business cycle.

### **The Cycle Model—Kalecki**

The first progressive model of the cycle using difference and differential mathematics was by Michal Kalecki in the 1930s (see Kalecki [1935] 1968). It was extremely clear in economic concepts. Even the mathematics did not get mainstream economists to teach Kalecki because he agreed with Keynes and Mitchell that endogenous factors could cause severe recessions.

Kalecki focused on the fact that profits influence investment, but investment influences profit, as shown below. Since Kalecki, progressives have written on every aspect of dynamic macroeconomics, including real and financial, long-run and cyclical, one country and global (see citations in Sherman 1991 and 2010).

## **Long-Run Trends**

My hypothesis is that the business cycle is determined by the main institutions of capitalism, so all cycles have certain patterns in common. Yet the institutions of capitalism do change over time, so those changes are reflected in long-run economic trends and gradual changes in behavior from one cycle to the next.

After World War II, the United States had more production and did more trade than the rest of the world combined, though its total dominance slowly eroded as competition arose. For two decades from 1950 to 1970, the United States was certainly dominant. In that period, it had a large trade surplus, it was creditor to the world, U.S. wages and salaries rose at a good rate, unequal income distribution was reduced, credit rose in expansions but fell in contractions, home ownership and mortgage debt rose very slowly, and there was a significant amount of personal saving.

By the early 1970s all of this changed because the U.S. economy had many competitors, the rate of globalization and integration increased, and the U.S. economy became more dependent on the rest of the world. These structural and institutional trends resulted in major changes. The United States ultimately had a large trade deficit, it was the world's largest debtor, wages and salaries had a greatly reduced rate of growth, income distribution became more unequal, credit rose more rapidly even in recessions, mortgage debt rose more rapidly, and personal saving declined toward zero. These trends in institutions and performance influenced the cycle, as seen below (see details of the trends in Sherman 2010).

## **Investment and Profit**

Under capitalist economic institutions, business investment is the key to the economy. Rising new investment means a higher rate of expansion of business facilities and equipment. Falling investment means stagnation and recession.

Under capitalist economic institutions, the key motivation for investment is the expectation of profit. Many studies have found that

profit growth is followed by investment growth, with a time lag (see the literature in Sherman 1991).

Aggregate profit can be defined as aggregate revenue minus aggregate cost. When investment rises and the economy rises with it, it affects the flows of revenue and cost. These new flows then determine the changes in profit and profit expectations, as discussed below.

## **What Causes Every Boom to Turn into a Recession?**

In all expansions, including the 2001–7 expansion, there is a period in mid-cycle when it looks like the boom will go on forever. Higher employment leads to higher income, which leads to higher profits and more investment, which leads to higher employment—sometimes called a virtuous circle. Why should such a boom ever end?

The hypotheses here refer to the empirical facts of the cycle of 2001–9, including the Great Recession of 2007–9. The movements that occurred in this cycle, mostly under President Bush, followed the classic pattern, though more violently. (The movements discussed in this section for the cycle of 2001–9, as well as the previous five cycles, are investigated in great detail, with their sources, in Sherman 2010.)

The simplest answer to the question “Why does every boom end in recession?” is that toward the end of the boom, the political-economic institutions of capitalism lead to a declining growth rate of aggregate revenue and a rising growth rate of aggregate costs. The result is slowed, then declining, profits. The profit decline leads to lowered future profit expectations. The lower expectations cause an investment decline, which leads to a recession. Only the details can put flesh and blood on these abstract concepts.

Cycles are repetitive, so one must break into the story and begin somewhere. Here, the exposition begins in the middle of the expansion. In mid-expansion the economy is rising at its most rapid pace.

After the midpoint of expansion, the gross domestic product, consumption, investment, and aggregate profit all tend to rise further, but at a slower and slower pace. Anyone who looks at the annual data can

see this slow reversal of the growth trend. The economy does not rise faster and faster to a peak, then suddenly collapse, so no one should be shocked at the beginning of a recession.

In addition to investment itself, three elements of aggregate revenue must be examined: consumer spending, government spending, and export revenue from foreigners. Important costs include employee income (wages, salaries, and benefits), taxes, imports of raw materials, and interest costs. Each is discussed below.

### **Consumer Spending**

The largest single component of consumer demand is spending from employee income, so what has happened to employee income in the long run and in the cycle? One of the long-run trends over the past forty years, or six cycles, has been that employee income has risen very slowly, while business profits (especially the profits of the giant corporations) have risen rapidly.

In cyclical terms, the income gap between average employees and capitalist owners has increased dramatically in each expansion, but the gap has decreased only a little in each recession. So the gap has increased in each cycle on the average (Sherman 2010, 45–57).

The greatest gap between the growth of employee income and the growth of business profits was in the 2001–7 expansion. The data for the Bush cycle and the previous five cycles can be compared. Let business profits be defined as aggregate corporate and noncorporate profits, while employee income is defined as wages/salaries plus benefits. Then divide cycles into nine stages, following Wesley Mitchell, where Stage 1 is the initial trough and Stage 9 is the final trough (see Sherman 2010, 32–33).

In the average of the five cycles from 1970 to 2001, the ratio of business profits to employee income increased by 13.1 percent from the trough at Stage 1 to the profit peak (the important turning point) at Stage 4. In comparison, from the trough of 2001 (Stage 1) to the peak of profits in 2007 (Stage 4), the ratio of business profits to employee income rose by 25.2 percent (data from Bureau of

Economic Analysis, Commerce Department, table 1.12 at [www.bea.gov](http://www.bea.gov)). That rapidly growing gap was one of the underlying reasons for much that happened in the Great Recession. Why is that gap an important causal fact?

Consumer spending increased in the expansion. By far the largest source of consumer spending was employee income. When employee income rose at a very slow pace throughout the 2001–7 expansion, it limited the growth of consumer spending. Therefore, in the second half of the expansion, the first factor causing a slowing of the growth of corporate revenue and the beginning of the Great Recession (and all other recessions) was the slowing growth of consumer spending caused by the slowing growth of employee income.

### ***The Credit Bubble***

In fact, if consumer spending had been solely dependent on employee income, it would have risen at half the pace it did. Capitalist owners spend a lot per person, but they are a tiny percentage of all the people, so their total spending was a relatively small amount. So where did the money come from that kept consumer spending flowing fast enough to buy consumer goods and services till the end of expansion?

The gap between employee income and the production of consumer goods and services was filled by consumer credit. Banks and other financial corporations assumed that the expansion would continue forever, so they advanced credit to people with very little income, who could pay it back only if their income expanded. Thus, a gap opened between the amount of credit issued and the amount of credit paid back.

Outstanding consumer credit increased rapidly in most expansions since 1970, then slowed in recessions, but did not decline (Sherman 2010, 95). In the expansion of 2001–7, consumer credit rose rapidly in the expansion. Then in the Great Recession that followed, consumer credit finally fell (Sherman 2010, 97). It fell partly because consumers were afraid to borrow and partly because financial corporations were afraid to give more credit.

Thus the long-run credit bubble died only in the Great Recession. As long as the credit bubble lasted, it helped fuel expansion. When the financial crisis began, the bubble burst and made the recession much worse.

In the expansion of 2001–7, as the average employee needed more and more credit to keep up with the average lifestyle, they ran out of other sources and had to get first or second mortgages on their homes for enough credit to meet their family needs. The financial corporations wanted to maximize their profits, so they gave mortgage loans fairly indiscriminately to those who were likely to repay them and to those who had little chance of repaying them.

These mortgage loans were then sold as a package to other financial corporations at a profit, so there was a mounting pyramid. Packages of U.S. mortgages were sold all over the world, so even German banks had a large amount of such bad assets when the crisis began.

Corporations also took on the burden of increasing credit over the past thirty-five years, but the rate of growth of corporate credit remained about the same even in the recessions (Sherman 2010, 98). Only in the Great Recession, when the credit bubble burst, did the rate of growth of corporate credit finally decline to a very low level (Sherman 2010, 100). Corporations ended up with increasing mountains of debt, all with rising interest rates, over the expansion. Again, this happened in every cycle, but more so in the cycle of 2001–9.

Thus the greatest criminal in the mystery of the Great Recession was credit. What happened? Credit of all kinds rose in the expansion and resulted in a boom. Yet credit made the boom more and more fragile. After the recession began, the bubble burst, creating a financial crisis and a much deeper recession than it would have been otherwise.

From the cycle peak in the fourth quarter of 2007 to the fourth quarter of 2008, stagnant wages plus weakening credit were the major causes of the recession. Yet the decline of GDP remained mild in that period. It was only when a full-blown financial crisis brought an actual decline in credit that the GDP dropped rapidly, unemployment rose rapidly, prices dropped, imports and exports dropped, and

a mild-looking recession became the Great Recession (more on the credit crisis below).

### ***The Trade Deficit***

From the 1970s to the present, U.S. imports rose faster than exports decade after decade. Since the trade deficit is the difference between imports and exports, the trade deficit rose. Money leaked out of the domestic economy through the continuing trade deficit.

The trade deficit worsened in the second half of the 2001–7 expansion as imports increased faster than exports (Sherman 2010, 131–50). Therefore, this trade deficit was another cause of slowing domestic demand and the onslaught of the recession.

### ***Government Spending and Taxes***

Government spending and taxes show a clear cyclical pattern that repeats itself in every cycle, except for wartime cycles. Government spending increases at a slow-growth pace over the long run and over every expansion, reflecting the growth of the society's needs beyond the private enterprise system.

In every peacetime expansion, taxes have grown much faster than government spending (Sherman 2010, 116–24). This happened because spending grew slowly from long-run needs, while taxes rose with income and sales.

Although many politicians ignore the fact, if taxes rise as fast as spending, government does not stimulate the economy. Only deficit spending stimulates the economy. So when taxes rise faster than government spending at the end of expansion, the stimulus is reduced. The reduced deficit spending is another reason for the slowed growth of revenue in the last half of expansion, hence a cause of recession.

The Bush expansion of 2001–7 started with so much war spending that the pattern was different. Spending rose faster than taxes. Yet even in the Bush administration, taxes rose faster than spending in most of the late expansion, thereby reducing deficit spending (Sher-

man 2010, 124). This was another factor leading to the profit decline and the Great Recession, which soon followed.

### **Revenue and Cost**

So far three kinds of revenue have been shown to weaken or decline in the second half of expansion: consumer spending, government deficit spending, and net exports. The credit crisis as well as the weakening growth of wages and salaries were especially important in slowing the growth of consumer spending.

As spending slowed, what happened to costs? Those who find higher wage and salary costs to be the villain in the picture do not notice that wages and salaries always rise more slowly than business profits, so they are not a problem, but a source of strength for profits. That was especially true in the expansion of 2001–7 (as discussed above). The cost of taxes was shown to be a factor that lowers the stimulation from government spending. The cost to the economy of imports was discussed in its role as leading to trade deficits. Two other costs playing a negative role in most expansions, and certainly in the expansion of 2001–7, were interest costs and the cost of imported raw materials.

### **Interest Costs and Raw Material Costs**

The previous section showed that the boom in credit brought higher interest costs. In addition, the costs of raw materials rose toward the end of every expansion.

In the expansion leading to the Great Recession, however, the prices of raw materials rose much faster than usual in cyclical expansions. Raw materials prices rose much faster than the price of finished goods (Sherman 2010, 141 and 143).

If raw materials were all produced and bought within the United States, then it might be argued that rising prices would merely shift profit from one set of corporations to another. In fact, the raw materials mainly came from abroad, so they hurt aggregate U.S. profits.

Thus, higher interest costs and higher raw materials costs both hurt U.S. profits and helped cause the Great Recession.

### ***Profit Decline and Recession***

In the second half of peacetime expansions, business revenues rise increasingly slowly. This includes slower rise of consumption, less deficit spending, and a rising trade deficit. At the same time, costs rise faster, including imported raw materials and interest costs, but not wages and salaries, which continue to rise slowly. Profits are crushed between rising costs and slower growth of revenue. Falling profit leads to falling investment, so a recession begins. Less investment leads to lower employment, which leads to less consumer demand, thus reducing profits further. This has been called the vicious circle of recession.

### **What Caused a Financial Crisis and a Deep Recession?**

How deep and long will a recession be? This usually depends on three long-run trends in the institutions and relations of capitalism. They are the situations in housing, finance, and the rest of the world.

First, how has the distribution of income and the credit system affected the behavior of housing construction and sales? Housing has a somewhat different cycle than the general business cycle. The reason is that there is a long time-lag between the first intention to build a house and the final end of the process of planning, zoning, financing, building, and selling. A contraction in housing also tends to be lengthy because of the need to finish the housing under construction and then to sell all of the inventory of existing housing. In the case of the Great Recession of 2007-9, housing declined before the cycle peak and helped set off the recession. As shown above, the housing mortgage crisis also directly affected the financial crisis. The housing decline and the general decline then reverberated against each other.

A second factor determining the length and depth of a recession is the state of the credit market and financial system. The role of the bubble and crisis in consumer credit, mortgage credit, and corporate credit was already discussed above. The financial crisis then made the depth and amplitude of the recession in GDP from a mild recession to the worst disaster since the Great Depression.

The third factor determining the length and depth of the contraction was the health of the global economy. For a few quarters after the U.S. recession began in the fourth quarter of 2007, the rest of the world continued a weak expansion. Most of the global economy, however, suffered from the same problems as the U.S. economy did, so after a while, the global economy also went into crisis. The global crisis made the U.S. economy that much worse.

An example of this reverberation can be seen in the data on U.S. imports and exports. U.S. imports (reflecting U.S. national income) declined every quarter of the recession, beginning in 2007Q4 and then declined by over 15 percent at an annual rate in 2008Q4, when the financial crisis hit. By contrast, U.S. exports to the rest of the world remained growing, although weakly, from the beginning of the recession in 2007Q4 through 2008Q3, since much of the global economy remained growing. Then in 2008Q4 the global financial crisis hit, and U.S. exports to the rest of the world suddenly declined at an annual rate of about 30 percent. Moreover, as a result of the global financial crisis reaching its worst in 2008Q4, there was in that quarter a decline at an annual rate of over 20 percent in real aggregate U.S. investment and of over 50 percent in real aggregate U.S. corporate profit (Sherman 2010, 91).

## **Why Does Every Recession End in a Recovery?**

Why was there a recovery from the financial crisis and Great Recession of 2007–9? This recovery does exist, but so far the amount of full-time unemployment remains at about 15 million human beings. In all recessions, the movements found in the expansion reverse themselves on the recession.

The trends of the Great Recession from the profit peak to the profit trough sound like the trends of the expansion read in reverse. Profit falls much faster than employee income. The percentage of employee income in national income rises. The percentage of consumption in national income rises. The trade deficit declines. Government spending rises very rapidly, while government taxes fall very rapidly. Therefore, government deficit spending soars. Consumer credit declines. New mortgage credit falls like a stone. On the cost side, interest rates were at an extremely low level, and the Federal Reserve has tried to hold them that way. There are vast excess supplies of raw materials, so the cost of raw materials to American industry has declined. (There is no space to spell out all of this data here, so it will be presented in a future publication, but the places to find the data are all given in detail in Sherman 2010).

All of these reasons have led to rising profits in the late recession. The rising profits stimulated business. Many businesses make full-time workers out of their large numbers of part-time workers, so they need not hire more employees. Since the worst panic of the financial sector disappeared, the banks were safely able to resume business at a time when large numbers of financial bargains were available, so some of the banks have already made unprecedented profits (thanks to the stimulus that came from the public treasury). The question as to how weak or strong this recovery will be is still unanswered, except that unemployment will remain high for some time.

### **Lesson for Macroeconomics**

The lesson for macroeconomics is that the internal trends in the economy all become negative at the end of expansion and positive at the end of recession. Of course, there is nothing completely determined in advance in this process. For example, it is probable that the financial crisis would have led to a deep depression without the intervention of the Obama administration, even if the rescue and stimulus might have been done in much better ways.

## **Institutions and Models**

As a concrete example of the progressive macro approach, this article has presented brief summaries of three hypotheses. The expansion is turned into a recession because profits are crushed by the declining growth rate of revenue and the rapid rise of cost. Recovery from recession comes when profit rises again, due to the slowing of the decline in revenue and the more rapid decline in cost. The depth and length of recession depends on long-run trends and movements in housing, finance, and the rest of the world.

Each of the movements in revenues and in costs is determined by the cycle conditions within the basic institutions of capitalism. These movements are modified by long-run trends due to changing institutions (see detailed argument about cycles and institutions in Sherman 2003).

Since the cycle pattern remains basically the same, a model can be made of these repetitive internal dynamics. The simplest model generalizing the facts is: Profits determine investment; investment determines GDP and the cycle; the cycle (or changes in GDP) determines the movements of revenue and cost. The movements of revenue and cost determine profit. Such a toy model is useful for teaching, but not for prediction (the endogenous theory of the cycle is spelled out in detail in words, statistics, and mathematics in Sherman 1991).

From the knowledge that capitalist institutions determine recessions and crises, policies for full employment can be devised. The degree of success depends on how deeply the society is willing to change existing economic institutions.

## **Policy—Three Lost Chances**

Macroeconomics must concern itself with every large and controversial area of government spending, including war, health, and employment. President Obama was seen as the peace candidate, but he has escalated the war in Afghanistan and is waiting three years to end the war in Iraq. If President Obama used his power to end the Afghanistan and Iraq wars, then—aside from saving lives—hundreds of billions of

dollars would be available for health care and stimulus to gain full employment, ending any legitimate arguments over costs.

Second, President Obama urged (1) a public health insurance system, designed to cover the uninsured and to hold down insurance costs, and (2) no compulsory health insurance. The private health insurance industry urged (1) no public health insurance and (2) compulsory individual health insurance. The private insurance corporations used millions of dollars a day on lobbying and a saturation advertising campaign (details in the PBS documentary [2010]). The new law has (1) no public health insurance and (2) compulsory individual health insurance.

The new law did stop a few of the worst insurance practices and gave subsidies to 30 million people to get health insurance. Most of those subsidies will go directly to the health insurance corporations. Since there would be 30 million new customers and no public health insurance, the new law will provide much higher prices and soaring profits for the health insurance corporations. The American public will be provided with rapidly rising costs of health care.

Health care is a large portion (about 17 percent) of the U.S. economy, so the extremely high cost is an obstacle to economic growth. The goal should be to get universal, low-cost public health insurance, such as extension of Medicare to everyone. Only public health insurance will help economic growth and reduce health-care costs, and it may lead to greater equality of income distribution.

Finally, candidate Obama promised help to the unemployed. The Great Recession started under Bush, and unemployment was rising rapidly when Obama took office. The Democrats passed a large stimulus package, with several important economic areas included. Yet it did not do enough to accelerate the creation of new jobs.

The administration calculates correctly that the stimulus added 2.5 million jobs. They now freely admit that they did not expect the recession to cause another 7.5 million jobs to be lost in the same period. The net result was a loss of 5 million jobs.

Part of the problem is that their goal was not public jobs but the stimulating of private jobs, as they state at every opportunity. In an uncertain situation, businesses try to expand without new hiring—for

example, by increasing hours for existing employees. It is far easier to control the addition of public jobs.

What is needed, therefore, in order to achieve the most employment as fast as possible is a very large stimulus package focused mostly on government jobs. City and state governments have lost millions of employees in the recession, all in areas of necessity so that the cuts are painful to hear about and to endure. It is thus perfectly possible politically and desirable in purely economic terms to hire millions of employees in the states in a few months with federal funds.

In the long run, a Public Option for Jobs is needed, to provide employment for any employee for whom no job exists in private enterprise (for details and citations, see Sherman 2010, chapter 12).

The Obama administration also controlled the largest banks, the largest insurance corporation, and the largest industrial corporation for some time, all of which were considered “too big to fail” if a depression was to be avoided. The administration voluntarily gave up that control. This action lost the window of opportunity for the public to take over these firms and ensure that another large financial crisis could never happen again.

## **Conclusions**

Progressive macroeconomics begins with the study of how capitalist institutions shape the economy. It already exists in three main areas. First, it explains money, credit, and financial crises (see Davidson 2009). Second, it explains growth, development, and the global economy (see O’Hara 2008). Finally, this article sketched its application to business cycles (see Sherman 2010). Perhaps the crisis will result in a spread of progressive macroeconomics.

## **For Further Reading**

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