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Economic Outlook

More Panic

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"A monetary economy, we shall find, is essentially one in which changing views about the future are capable of influencing the quantity of employment."

—John Maynard Keynes, preface to *The General Theory of Employment, Interest and Money*

Over the past several months as central banks and treasuries have struggled to manage a financial panic and avoid or diminish its soon-to-appear devastating impact on the global economy, I have often thought about the efforts of two great economists to understand the lessons of the Great Depression. John Maynard Keynes's monumental *General Theory of Employment, Interest and Money*, published in 1936, showed how a failure to understand the nature of the demand for money contributed to the Great Depression. "The importance of money essentially flows from being a link between the present and the future," Keynes said.

In their masterful 1963 work *A Monetary History of the United States*, Milton Friedman and Anna J. Schwartz showed in the chapters on the Great Depression that the Federal Reserve's failure to prevent a collapse in the supply of money contributed substantially to turning what could have been a sharp postbubble downturn into a protracted and devastating global depression that lasted for half a decade. The complementarity between the analyses of the two great monetary theorists of the twentieth century—John Maynard Keynes and Milton Friedman—has been little appreciated by the general public. But for the lucky students—among whom I include myself—who studied with Milton Friedman at the University of Chicago, it is no surprise that Keynes's insights are important guides to dealing with the financial collapse and the onset of a severe global recession that have followed the bursting of the housing bubble and the subsequent crash of global equity markets.

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Keynes, Friedman, and Current Policies

The appropriate roles for monetary and fiscal policy after a financial collapse, articulated in the great scholarly works of Keynes and Friedman, provide worthy guides today. So far, it is fair to say that the Federal Reserve and the Treasury have, in the current crisis, applied Friedman's insights in attempting to sustain the supply of money in a world in which a breakdown of the banking system is collapsing the money multiplier, the system's ability to generate liquidity worth several times the amount of its reserves or deposits.

Keynes's fiscal policy lesson, which dictates large government expenditures to replace collapsing private expenditure, has begun to be applied, but only modestly. The major oversight in the current crisis has been a failure to compensate adequately for a massive surge in the demand for money that occurs during a financial panic. Even in the face of a huge increase in the monetary base by

the central bank, a collapse in the money multiplier caused by a failure of banks to intermediate can keep the broad supply of money from growing at a time when the demand for money is surging, as frightened households and firms hoard cash in the face of large wealth and income losses. The proximate symptom of a surge in the excess demand for money (that is, a growth of money demand that exceeds the growth of money supply) is rapid disinflation and then deflation. A stronger dollar and a flatter yield curve—especially in recent weeks—have underscored the emergence of a rising U.S. excess demand for money.

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Fortunately, alone among major central bankers, Fed chairman Ben Bernanke has understood the nature of the threat posed by a rising excess demand for money as he scrambles to address it. In his speech to the Economic Club of New York on October 15 and in his testimony to the House Budget Committee on October 20, Bernanke articulated the two key goals of policymakers in this crisis. The first, to stabilize the financial system, amounts to an attempt to regain control over the supply of money in circumstances in which a rapidly deleveraging banking system is pushing down the money multiplier at an even greater rate than the Fed is boosting the monetary base.

The second goal is to avoid deflation. Bernanke has recognized that in a financial panic a surge in the demand for money can result in a spending collapse that sharply intensifies the negative impact on the real economy of turmoil in the financial system. The sudden collapse in consumption at the end of the third quarter, which is intensifying sharply in the current quarter, is an ominous sign. Households that need credit to finance their spending cannot get it, while households that do not need credit are contracting spending to boost their money balances. Simultaneously, firms, anticipating an abrupt drop in the demand for their products, are canceling investment projects to conserve on cash and prepare for a period of significantly weakened receipts. In this environment, commodity prices have already collapsed, and as demand collapses, the prices of goods and services will fall rapidly as well. The operation of an adverse feedback loop, whereby the rising stress in the financial sector is rapidly slowing activity in the real economy, will quickly turn the focus from the risk of inflation to the risk of deflation. If deflation is allowed to appear, it will further slow the real economy by increasing the demand for liquid assets at a pace that central banks, some of which are still worried about inflation, will find difficult to overcome.

The scope of the measures needed to avert the risk of deflation is massive. The Fed has assumed leadership by quintupling the size of its balance sheet and offering virtually unlimited lending to commercial banks. Those steps, along with the Treasury's $250 billion of capital injections to the banking system under its Troubled Assets Relief Program, have helped to stabilize financial markets. Avoiding deflation will require that the Fed take the next step of printing money to purchase assets directly in the open market. That will be needed to finance current and future Treasury injections of capital into the banking system as well as further programs for fiscal stimulus to help cushion the impact on households and firms of a virulent, sharp recession that is emerging.

The Damage and Response—So Far

Where are we in this rapidly unfolding crisis for the financial system and the global economy? The housing bubble has burst. The heavily leveraged and derivative-releveraged exposure of the banking system to bad real-estate loans had, by early October, totally frozen the global financial system to a point at which banks refused to lend to each other, let alone to their customers. The financial crisis has fed back onto the real economy via a collapse in equity markets and attendant, massive wealth losses that have frozen credit to, and spending by, households and firms. Policymakers have responded with massive injections of liquidity into the banking system followed by some injections of capital into the banks by national treasuries. The banks have reluctantly begun to lend modest amounts to each other but so far have shown no sign of any willingness to lend to others and, therefore, continue to fail as financial intermediaries. The damage already inflicted on global balance sheets and the real economy is substantial.

The global collapse of housing prices and equity markets has erased about $25 trillion from global wealth. About half of that loss has come in the United States alone, and before the fall in asset prices is over (perhaps

by late next year), the losses will probably approach $40 trillion, with U.S. losses coming to well over a year's income—about $15 trillion. There will be no sprightly economic bounce after such massive wealth losses, as households restrain consumption to pay interest on large stocks of debt that were accumulated during the bubble. Deleveraging by banks for the same reason has severely restricted the supply of credit to all but those who do not need it—that is, those who have not used it during the credit-driven boom.

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Firms will be reducing investment as consumption demand collapses, creating excess capacity and, in some cases, totally redundant forms of real capital equipment. Who imagines that the current fleet of private jets costing an average of $10,000 per hour to operate will survive the massive losses of wealth and income that are underway? And who imagines that the global automobile industry, with its substantial extant excess capacity, will do anything but shrink in a world in which credit-financed purchases are sharply curtailed by the nexus between reluctant lenders and uncreditworthy borrowers? Kirk Kerkorian has begun to abandon his substantial investment in Ford. The relative winners—there will be few absolute winners for a while—will be those firms that conserve resources and enhance efficiency through such means as smaller cars, smaller houses, and better computer search engines that enhance what will become consumers' increasingly frequent searches for the lowest prices available.

Why the Sudden Panic?

The intensity of the financial panic and attendant economic collapse that emerged in mid-September caught households, firms, policymakers, and investors by surprise. A period of denial emerged after the mid-March Bear Stearns crisis, typified by stock tout Jim Cramer's March 21 article in *New York* magazine proclaiming that the crisis was over. That denial phase was overwhelmed in July as mortgage giants Fannie Mae and Freddie Mac were placed in "conservatorship," a polite term for bankruptcy. Fannie and Freddie required huge infusions of government capital.

By September, the highly leveraged investment banking industry vanished as Lehman Brothers declared bankruptcy, Merrill Lynch was absorbed by Bank of America (at $29 per share for shares now worth $18 per share), and Morgan Stanley and Goldman Sachs scurried for cover by dropping the investment bank mantle in exchange for a less leveraged classification as bank holding companies. That switch—most importantly—gave Morgan Stanley and Goldman Sachs access to the massive liquidity injections being offered by the Federal Reserve as it tried desperately to at least get banks to lend to each other—if not to their customers.

The incredible transformation of the financial sector has occurred at blinding speed. Beyond the virtual disappearance of the investment banking industry, by late September, JPMorgan Chase, with the help of the Federal Deposit Insurance Corporation, absorbed mortgage giant Washington Mutual, the sixth-largest bank in the United States, just before it collapsed. Most WaMu depositors were saved. Bond holders and holders of preferred and common shares, however, were wiped out. Investors in shaky banks took note of the fate of investors in WaMu. Wachovia Bank moved rapidly toward collapse and had to be absorbed by Wells Fargo Bank after a tussle with Citigroup for control of the Wachovia retail banking franchise. Jim Cramer stepped into the limelight again, this time to recommend buying Wachovia shares trading at about $10 a share in mid-September. They closed at $1.84 a share on September 29. The recovery to about $5.70 a share after the Wells Fargo purchase reduced, but by no means eliminated, the substantial loss.

Beyond traditional banks, the huge insurance company AIG turned out to be a front for aggressive and highly leveraged speculation in derivatives products tied to the collapse of the housing market. AIG, with a nominal total of $1 trillion in assets, turned out to have been writing more than life and casualty insurance. It had collected hefty premiums for selling insurance on securities tied to collapsing real estate. It could not cover the losses. Nor could its managers explain to prospective buyers of the remainder of AIG how large the losses might be. So the Federal Reserve made an $85 billion loan to AIG at a 10 percent interest rate in exchange for control of the company. The loan was later enlarged by another $35 billion to $120 billion, with the Federal Reserve no doubt hoping that what was left of AIG

would some day be worth that much, lest the losses on AIG be added to the losses to their nominal $30 billion holding of Bear Stearns's shabby assets.

Stabilizing the Financial System and Avoiding Deflation

The battle to stabilize the financial system with a combination of massive liquidity injections by the Federal Reserve, Treasury efforts to recapitalize the banks, and deposit guarantees to avoid the risk of bank runs has had some unintended consequences. For the banks that are the targets of massive rescue efforts, the crisis has been contained insofar as global deposit insurance has been extended to cover most bank checking deposits. There will not be a depositor run on major banks. For institutions outside of the banking system, however, the crisis has intensified as frightened households and firms shift their deposits into the banking institutions covered by deposit insurance. On October 20, the Federal Reserve announced that it was committing another $540 billion of resources to helping the money-market mutual-fund industry deal with rapid outflows as households, unsure of the safety of their mutual-fund holdings, switched their deposits into the banking system in which deposits are insured.

Another unintended consequence of the rapid succession of rescue efforts that have included harsh treatment of common shareholders and some debt holders of failed financial institutions has been to push down the share value of financial sector stocks. Since early October, when the shape of rescue operations emerged after the takeover of Washington Mutual by JPMorgan Chase, the stocks in the S&P 500 Financial Sector Index have fallen more than 25 percent, with most of the fall coming right after JPMorgan absorbed WaMu. The financial crisis and the exposure of the financial sector to mortgage-backed securities have kept financial shares under heavy pressure. However, the rescue model whereby shareholders and some debt holders of financial firms are wiped out in the process of absorption of those firms by stronger institutions has, understandably, made investors very nervous. Unfortunately, there is not much of an alternative to the approach that is being followed. If a virtually insolvent financial institution is being taken over by a stronger one, the only liabilities that can be preserved are those of depositors. In effect, the "at risk" investors in financial institutions have been sacrificed in order to preserve depositors. That is the right principle in a crisis, but it does not ease the pain for investors in financial institutions.

The real economy has been substantially damaged by the crisis and collapse in the financial sector. The Federal Reserve has responded aggressively by taking steps to avoid a drop in the money supply such as the one that occurred between 1929 and 1932 and that prolonged the Great Depression. As already noted, Friedman and Schwartz underscored that crucial message in their *Monetary History of the United States*.

Avoiding deflation may require more aggressive measures—specifically, having the Fed print money and directly inject the funds into the economy by purchasing long-term government bonds used in turn to finance programs of government spending and capital injections into the banking system. The Fed has not yet reached that stage, but it is approaching it rapidly. The Fed has reduced the fed funds rate sharply since August 2007 from 5.25 percent to 1 percent. Typically, the target fed funds rate is guided by the Taylor Rule, which ties its level to the proximity of core inflation and the unemployment rate to their underlying targets. Currently, the fed funds rate implied by the standard Taylor Rule is 3.8 percent, while the level of the fed funds rate implied by the enhanced Taylor Rule (with a greater sensitivity to rising unemployment) is 2.7 percent. The fact that the actual fed funds rate is at 1.5 percent, 120 basis points below the level implied by the enhanced Taylor Rule, suggests the Fed's heightened level of concern about the weakening economy and, possibly, falling inflation going forward.

Those concerns are well founded. If the unemployment rate, which is currently 6.1 percent, reaches 7.5 percent by year-end while core inflation drops from its current 2.6 percent to 2 percent, the implied fed funds rate under the enhanced Taylor Rule would be –1 percent. The fact that the fed funds rate cannot be set below zero—even if the Taylor Rule calls for such a setting—constitutes the "zero bound problem." At the zero bound, the Fed needs to stop targeting the interest rate and start quantitative easing or printing money based on the model it recommended for the Bank of Japan after it reached a virtual zero interest rate in early 2001. At that time, Japan's central bank was forced to print money to buy government bonds to combat intensifying deflationary pressure.

The Taylor Rule highlights an important truth in the rapidly changing current global economy. Even if current core inflation is positive and resists downward pressure

below, say, 2 percent, a sharp rise in the unemployment rate can bring forward the zero bound problem and the need to print money very quickly when the implied target fed funds rate becomes negative.

The U.S. unemployment rate is poised to rise sharply from 6.1 percent. We know from the experience in 1980 when President Jimmy Carter directed the Fed to impose credit controls that a freezing up of credit can throw the economy into a sudden slowdown in which the unemployment rate rises dramatically. The March 1980 credit freeze was imposed with the unemployment rate just above 6 percent. Within several months, it had risen to nearly 8 percent. Today's credit crunch is not exogenous like the one imposed by Carter, but endogenous, imposed by a collapse in the housing market, numerous financial failures, and an intense need for banks to deleverage, which translates into a virtual cessation of credit supply to the economy. Such an endogenous credit crunch is even more virulent than government-imposed credit controls that can be lifted promptly when the economy collapses, as it did in 1980. Beyond that, American households are substantially more indebted relative to income today than they were in 1980. Few American households contemplate the purchase of a home, a car, or a major consumer durable good without using credit. The sudden unavailability of credit has caused consumption to drop sharply, falling probably at a 3 percent annual rate in the third quarter, and will possibly lead to a steeper drop in the fourth quarter.

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In this environment of a sudden collapse in spending, as firms cut back on investment, they also attempt to reduce their largest single cost—outlays on wages to labor. As monthly employment falls by between 200,000 and 400,000, as is already signaled by the sharp jump in initial claims for unemployment insurance, the unemployment rate rises rapidly and feeds back negatively onto consumption and hiring decisions. By the current quarter, when many forecasts put overall growth at –4 percent, with an unemployment rate over 7 percent, the Fed's nightmare scenario of an implied negative fed funds rate could become a reality—even if the core inflation rate remains at 2 percent.

The risk of deflation rises rapidly when the implied fed funds rate becomes negative. If the Fed is backward-looking with an existing core rate of inflation above 2 percent, it may refuse to print money for fear of exciting inflation. The deflation that quickly results is immensely dangerous in a credit-crisis-induced recession with heavily indebted households and firms. There are two reasons for this. First, deflation sharply increases the real burden of debt. A 6 percent borrowing rate is not burdensome if the inflation rate is 6 percent since the real cost of borrowing is zero. The lender is just being compensated for the loss in the purchasing power of his interest receipts. A 6 percent interest rate with a 2 percent rate of deflation, however, results in an 8 percent real cost of borrowing as the borrower pays back in constant dollars that are worth more and more in terms of goods. The real burden of debt rises sharply in a deflation with the result that the pace of defaults accelerates rapidly. That outcome increases pressure on the financial system, which has made loans to distressed borrowers who are, in turn, being smothered by the rising real cost of borrowing and the rising real value of their outstanding debts.

The second danger from deflation is its self-reinforcing nature. As prices fall, the attractiveness of holding cash rises. As people attempt to enhance their holdings of cash by further reducing their spending, prices fall further, and the demand for cash rises more. Deflation intensifies. Such a deflationary death spiral must be avoided at all costs. Keynes's focus on the demand for money, specifically on a liquidity trap in a deflationary environment, highlighted the need for the central bank to become more aggressive by printing money when the zero bound on its interest target is reached. The Bank of Japan's experience with deflation earlier in this decade underscores this lesson.

Fight Deflation—Now

Since mid-September, the virtual collapse of financial markets worldwide, with the attendant massive losses of wealth and elimination of access to credit, has brought global economic activity to an abrupt halt. The adverse feedback loop identified by Bernanke—whereby financial sector weakness slows economic activity, which, in turn, induces further financial sector weakness and so on—has accelerated with self-reinforcing negative momentum.

In this dangerous environment, the risk of a deflating spiral has risen very significantly. Central banks need to make a rapid, almost instantaneous transition from their current stance of leaning away from preventing inflation to a proactive stance of leaning into avoiding deflation. The fundamental reason is straightforward. The acute need among banks to reduce leverage is collapsing the money multiplier so rapidly that the money supply is barely increasing even as the central banks engineer massive increases in the monetary base. (Money growth is the percent change in the money multiplier plus the percent change in the monetary base.) Simultaneously, the demand for money, in the forms of currency and (insured) bank deposits, is surging. Excess demand for money results in selling of commodities and risky financial assets along with elevated saving flows—all of which are deflationary.

The right model for central banks today is a sharply accelerated version of the Bank of Japan's path from 2001 to 2003 to a zero interest rate policy accompanied by direct purchases of long-term government bonds, mortgage-backed bonds, and equities. Printing money to directly support asset prices contained Japan's deflation and eventually reversed it by 2003. Today, a rapid onset of severe, incipient global deflation requires that the major central banks undertake an aggressive program of direct asset purchases to break the accelerating adverse feedback loop before further wealth destruction and more intense economic contraction usher in a global depression as devastating as the one that occurred in the 1930s.

For a comprehensive survey of AEI scholars' research on the financial crisis over the past several months, see www.aei.org/FinancialCrisis/.

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