U.C. Berkeley Econ 1 Lecture for September 13, 2010

Dealing with the Great Recession

Government Policy and Excess Demand for Safe, High-Quality Assets and the Downturn

What You Will Learn This Lecture

1. The two parts of the cure for a Minskyite downturn—"lend freely" and "at a penalty rate."
2. How the government has dealt with the downturn: it has been about ⅔ successful in carrying out the "lend freely" part of providing support to markets to rebalance demand and supply for high-quality assets.
3. How the government has not successfully carried out the "at a penalty rate" part of providing incentives to financiers to avoid irrational exuberance during the next financial boom.

Recapitulation

Last chapter we ran through the "monetarist" and "Keynesian" explanations of downturns.

The monetarist explanation—that downturns are the result of an excess demand for cash, of too little money chasing goods—is a good explanation for why the downturn of 1982 came about. The Keynesian explanation—that downturns are the result of an excess of (planned) investment over savings, an excess demand for bonds—is a good explanation for why the downturn of 2002 came about.

Keynesians

Last time we ran through two types of recessions, "Keynesian" type and "monetarist" type—the one we saw in 2002 and the otjer we saw in 1982.

In a "Keynesian" downturn the fundamental financial excess demand in the economy is an excess demand for bonds: an excess of (planned) savings over business investment. Households try to shift their spending from purchasing current goods and services to purchasing bonds and other investment vehicles to carry purchasing power forward into the future. The shift in spending away from currently-produced consumption goods and services puts downward pressure on employment and production in those industries. But where is the excess demand for labor to pull the newly-unemployed into new occupations?

Perhaps as bond prices rise and interest rates fall businesses become exuberant about expanding their productive capacity, boost business investment spending, and excess supply in consumption-goods industries is offset by excess demand in investment-goods industries and the economy smoothly rebalances. But perhaps not—perhaps businesses don't become exuberant, or perhaps (as happened in 2002) interest rates fall to their floor near zero, and there still is not enough incentive for businesses to invest enough to make them want to borrow enough to soak up the savings glut. Then the downward spiral of the multiplier kicks in: falling production and employment means falling incomes means further reductions in spending and further reductions in production, employment, and incomes.

The cures for a Keynesian downturn are for something to happen that brings the supply and demand for bonds back into balance. Interest rate reductions by the central bank might induce exuberant businesses to undertake investment spending to expand capacity. Thus they would print up more bonds too sell to finance their expansion. This would expand the supply of bonds, and so reduce the excess demand for bonds. Perhaps interest rate reductions would reduce the value of the dollar and so boost exports as U.S.-made goods look cheaper to foreigners. They would then pay for these greater purchases of our exports by selling their own dollar-denominated bondholdings into the market. This would reduce the demand for bonds, and so reduce the excess demand for bonds. Or the government could pull its spending forward into the present and push its taxes back into the past. In order to finance this shift, the government would sell more bonds. That would expand the supply of bonds. And that, too, would reduce the excess demand for bonds.

Standard monetarist cures—for the Federal Reserve to buy short-term government bonds for cash—are ineffective because an excess demand for liquid cash money is not the problem, except insofar as the Federal Reserve's open-market purchases trigger enough of a reduction in interest rates to sufficiently boost either business investment spending (and bond issues) or net exports (and foreigners' bond sales).

Monetarists

In a "monetarist" downturn the fundamental financial excess demand in the economy is an excess demand for liquid cash money: an excess of (desired) cash holdings over the economy's money stock. Households try to shift their spending from purchasing current goods and services to building up their cash balances to achieve their desired liquidity. The shift in spending away from currently-produced consumption goods and services puts downward pressure on employment and production in those industries. But where is the excess demand for labor to pull the newly-unemployed into new occupations?

Perhaps as households dump bonds on the market to try to build up their cash holdings bond prices fall and interest rate rise enough that households notice the high opportunity cost of holding cash and reconfigure in order to be satisfied with much lower liquid cash money holdings. But perhaps not. Perhaps (as happened in 1982) interest rates rise but households and businesses still want to build up their cash holdings. And then the downward spiral of the multiplier kicks in: falling production and employment means falling incomes means further reductions in spending and further reductions in production, employment, and incomes.

The cures for a monetarist downturn are for something to happen that brings the supply and demand for liquid cash money back into balance. Interest rate increases could induce households and businesses to reconfigure their operations, in order to get along with much smaller liquid cash money holdings. A general fall in the price level could reduce the flow of nominal spending needed to maintain the economy at full employment and normal capacity. The central bank could simply expand the money stock by buying bonds for cash. The banking system could reconfigure itself to accept more deposits for each dollar of its own reserves and thus run itself a little closer to the edge of vulnerability to a panic or a run.

Keynesian cures—for the government, say, to print up a bunch of bonds and engage in deficit spending—are ineffective because an excess demand for bonds is not the problem, except insofar as the government's bond issues trigger enough of a rise in interest rates to induce a sufficient reconfiguration so that households and businesses can carry out their normal spending plans with less liquid cash money in their reserves.

But This Time Is Different

However, the current downturn that started in 2007 and is still going on is different. It requires a different explanation. There is, currently, no shortage of cash in the economy: the Federal Reserve has bought short-term government bonds with cash until the economy is positively awash with liquid cash money. But the result has not been a renewal of spending. Instead, the velocity of money—the expression V in the quantity theory of money equation:

$$Y = (M/P) \cdot V$$

has fallen to previously unimaginable levels.

There is, currently, no obvious excess demand for bonds, for vehicles for saving to transfer purchasing power from the present to the future. You can get corporate bonds issued by corporations with good fundamental long-term economic prospects at extraordinarily low prices—and thus paying extraordinarily high yields—relative to normal times.

If the fundamental problem that was breaking Say's Law was an excess demand for money, then interest rates would be high. If the fundamental problem that was breaking Say's Law was an excess demand for bonds, an excess of (planned) expenditure over income, then bond prices would be high and interest rates generally low.

Instead, it is only interest rates on government bonds and other assets regarded as safe and of high quality (i.e., mortgages conforming to Fannie Mae guidelines) that are low—only the prices of those assets that are high.

Thus today we have a different type of economic downturn: it is neither a Keynesian downturn triggered by an excess of (planned) saving over investment, nor a monetarist downturn triggered by an excess of desired liquid cash money holdings over the available money stock.

A Third Type of Downturn: Minskyite

An Excess Demand for Safe Financial Assets

This current downturn is thus the result of an excess demand for safety, for high-quality assets, for vehicles in which one can place one's wealth and be confident that it will not melt away.

This downturn is a Minskyite downturn.

Instead, it is a Minskyite downturn triggered by an excess demand for safe high-quality assets. On the one hand, a great deal of the asset pool that people had regarded as safe and high quality—as nearly as good as Treasuries—is gone, or at least definitely no longer regarded as a safe place to park your wealth so that it will still be there when you come back. On the other hand, the fact of panic and the lack of trust in governments' abilities to stabilize the economy has greatly increased the share of portfolios that investors wish to hold in high-quality even if low-yielding vehicles.

If you are a monetarist or a Keynesian stating why the economy is in a downturn and recommending what should be done to fight depression is very easy and straightforward. In each case all you have to do is to remember and apply one equation. In the monetarist case you have to remember and apply:

$$Y = (M/P) \times V$$

In the Keynesian case you have to remember and apply:

$$Y = (c_0 + NX + I + G)/(1 - c_y)$$

But what do you do if you are a Minskyite, if you think that downturns—big downturns at least—are the result not of an excess demand for cash (which would produce high interest rates across the board) or of an excess demand for bonds (which would produce very low interest rates across the board) but of an excess demand for safe, high-quality assets which produces very low interest rates on low-risk securities like the debt of fiscally-sound governments and very high interest rates elsewhere in the economy?

There have been lots of Keynesians and monetarists developing their approaches and fighting it out since, well, since the days of Irving Fisher and Knut Wicksell more than a century ago. That is the reason why their arguments go so smoothly. But there have been fewer Minskyites. And I am not smart enough to make the argument as polished. So this lecture will be considerably rougher.

Thus unfortunately for you, there is no single-equation Minskyite counterpart to the single-equation income-expenditure formulation of the Keynesian model or the single-equation quantity-theory-of-money formulation of the monetarist model. The Minskyites have been a small sect rather than a large school, and so have not had the intellectual firepower to determine how to strip their theory down to its essentials so that it can be taught via a single equation to Econ 1 students.

And unfortunately for me, the past three years have been overwhelmingly a "Minskyite" downturn. There has been no general shortage of liquid cash money—interest rates on safe alternative assets like short-term U.S. Treasury bonds have remained low. If we were in a primarily "monetarist" downturn with a cash shortage those interest rates would have skyrocketed, as they did in the early 1980s. There has been no general shortage of bonds either—prices of corporate bonds have in fact fallen and interest rates risen. If we were in a primarily "Keynesian" downturn with a savings glut those interest rates would have plunged, as they did in the early 2000s. We are in a more complicated and confused situation, one that is hard to teach to Econ 1 students.

Panic and Flight to High-Quality Assets

The Minskyite story of a downturn follows, for a while, the same pattern as the monetarist and the Keynesian stories did. We break Say's Law by noting that general excess supply in all the markets for currently-produced goods and services can be generated by excess demand for financial assets, and that general excess supply produces downward pressure on production and employment—with no countervailing upward pressure in any other market for any other currently-produced goods or services.

The logic is that people today are not spending at their normal pace because they want to divert their purchasing power to building up their holdings of high-quality safe assets: there is an excess demand for such "AAA" assets. Thus households and businesses have been trying to switch their spending from purchasing currently-produced goods and services to purchasing and building up their safe asset holdings.

Thus employment and production in currently-produced goods and services industries has fallen—with nothing (so far) to pick up the slack.

This is in some respects an old and well-known story. Many economists (if not as many as there are Keynesians and monetarists) have set forward versions of it. Representative members of this "Minskyite" school include: Walter Bagehot, John Maynard Keynes (in some of his moods), Hyman Minsky, Charles Kindleberger, Ben Bernanke, and Ricardo Caballero. And it does have a cure, outlined nearly one hundred and fifty years ago by economist Walter Bagehot in his book *Lombard Street: A Study of the Money Market.* Bagehot compressed his cure for dealing with such a downturn into six words: the government should "lend freely" at a "penalty rate."

The Minskyite Cure

A Shortage of Safe High-Quality Assets

In a monetarist downturn the problem is an excess demand for liquid cash money, a money supply that is too small. The solution is for the central bank to boost the supply of money via open-market operations that buy short-term government bonds for cash. In a Keynesian downturn the problem is an excess demand for bonds—an excess of (planned) savings over investment. The solution is to bring savings and investment back into balance either via inducing the public to save less, the government to spend more and issue more bonds, or private companies to invest more and issue more bonds.

In the Minskyite downturn the problem is an excess demand for safe, high-quality, "AAA" financial assets. The economy is short of places where investors can park their wealth where they regard it as safe—where they think that it will still be there when next they look. Such an excess demand is the result of justified fear:

- The economy is in a downturn
- A lot of investors have lost their money
- Many financial institutions are teetering on the edge of bankruptcy

Thus it is reasonable for the demand for safe assets to rise.

But such an excess downturn is also the result of previous misjudgment and surprise:

- During the boom preceding the crash financiers had created a lot of brand-new financial assets
- Many of those assets had been widely and generally regarded as safe
- Many people and institutions had accepted the general regard and had treated them as safe places to park their wealth
- They turned out to be wrong
- The newly-created assets turned out to be risky indeed
- And so all those who held the no-longer-AAA assets are eager to move their wealth out of them and into properly, truly safe assets

Thus the excess demand for safe assets has both a supply and a demand side to its creation.

The Process of Recognition

We can see the process of recognition that assets regarded by safe are not safe at all in the internal discussions and judgments at the then-largest bank in the world—Citigroup—as it tried to understand its holdings of Mortgage-Backed Securities in 2007. The SEC vs. Citigroup civil court case settled in 2010 gives us a window into this process of recognition: that assets widely regarded as safe were in fact not so.

Tracking the documents, it seems clear that in January 2007 the top management of Citi thought that it owned $26 billion of safe MBS. By April 2007, the top managers thought that Citi had reduced its asset holdings to about $20 billion of relatively-safe MBS, and recognized that there was an additional $38 billion on its books—but was confident that that $38 billion were absolutely and totally safe so that there was next to no possibility of any loss. And by July 2007 Citi's top managers thought that they had reduced their relatively-safe holdings to $13 billion and their absolutely safe exposure to an additional $33 billion.

Then in the late summer and fall they change their mind. In September 2007, Citi concludes that it has probably lost $100 million on its $13 billion of relatively-safe MBS. By October, Citi believes that it has lost $1.6 billion on its $13 billion of relatively-safe MBS—but that it has no losses on what is now seen as an additional $43 billion of exposure.

And then in November 2007 Citi concludes that it has lost $10 billion on its $55 billion of MBS—that they were not safe assets at all. Citi ultimately lost about ¾ of the $55 billion that at the start of 2007 it had thought were safe places to park its wealth.

The Cure to the Downturn: "Lend Freely…"

The cure to a Minskyite downturn is analogous to the cures for monetarist and Keynesian downturns. In a Minskyite downturn the central problem is an excess demand for safety, a shortage of safe high-quality assets. The cures are two.

First, reduce the demand for high-quality assets by easing the panic—restoring the confidence and the risk-bearing capacity of the market.

Second, increase the supply of safe assets by having the government guarantee risky assets, thus transforming them into safe ones, or simply issue more debt itself and use the proceeds to buy up risky assets. This will also help eliminate the excess demand for safe assets—as long as people trust the government's promises, and don't take the expansion of its debts as a sign that its liabilities, too, are risky ones to be shunned.

When the government undertakes a Minskyite cure to a downturn—undertakes to reassure markets and to transform risky assets that no investors want to hold at anywhere near their fundamental prices into safe assets—it must. Bagehot said, act aggressively. Investors must see that the government is acting to make the otherwise-risky securities close to riskless. Investors must be confident that the government will continue to do so. Otherwise, they will worry about the risk that the government will abandon its market-stabilization policies, and that will make perceived risk even higher.

The government must, as nineteenth-century economist Walter Bagehot put it, "lend freely." Anybody and everybody who wants to swap the assets they currently hold for safe government-issued ones must be able to do so. That ability is the only thing that can make all the rest of investors confident that the assets they are holding are not risky at all.

In our current situation, this injunction for the government to do everything needed to expand the supply of assets the market considers safe is a call for a number of different kinds of expansionary policy.

It is a call for expansionary fiscal policy, for deficit spending—in which the government spends and then borrows by issuing its own bonds to finance its deficit spending, and those bonds then become safe assets that investors can hold.

It is a call for banking policy: government long-term loans to banks that are on the edge of failure, government guarantees of privately-issued assets, government purchase of risky assets financed by the issue of its own safe debt.

It is a call for non-standard monetary policy: open-market operations not just in short-term government bonds but in long-term and private securities that perform the same function of taking risk onto the government's balance sheet and providing the private sector with safe high-quality assets in their place.

And it is a call for raising the expected future rate of inflation a bit: if high-quality assets are now expected to have some of their value gradually eroded by slow inflation, demand for them will fall and so spending on currently-produced goods and services will rise.

Risks of Aggressive Policy Activism

If investors are still not confident that the government will preserve the financial system from collapse, then temporary bank nationalizations may be called for: if investors are not confident that the government will continue to support private-sector banks in trouble, they may need to be reassured by making the liabilities of shaky private banks liabilities of the government as well.

But all of these policies work only as long as and insofar as they do not shake investors' confidence in the government's own finances. For if investors begin to think of the government's liabilities as also not safe and subject to risk, all of these government policies will turn out not to raise the supply of safe high-quality assets but to diminish it. Then the gap between demand and supply for high-quality, safe assets will be bigger than ever, and the downward pressure on the flow of spending on currently-produced goods and services larger than ever. We saw this collapse of confidence in government credit in Austria in 1931, in Greece in 2010, and innumerable other times in other countries.

The Minskyite Cure: "At a Penalty Rate…"

"Lending freely" is, however, only half of the Minskyite cure to a downturn. The government must also lend at, as Walter Bagehot put it, "a penalty rate." For the government to lend to financial institutions that have portfolios so risky that the market has concluded that they are bankrupt and need to be shut down is to reward excessive risk taking. If investors and financiers come to believe that the government will be there to shore up the debts of aggressive financial institutions in a panic and make them safe to hold, investors and financiers will then have no incentive to curb their own appetite for risk—there will be no risk to them, they expect, for the government will bail them out. Thus a Minskyite cure to the current downturn tends to guarantee that the next downturn will be even worse, for nobody will then have any incentive to limit the risks that they are their creditors take.

As my old teacher from MIT, Charlie Kindleberger, liked to say:

> The presence of a lender of last resort weakens the self-reliance of the banking system and increases its likelihood of falling into excesses of overtrading, revulsion, and discredit...

Although he did note that

> [this argument] has overtones... that there is no use providing the poor with housing since they will only keep coal in the bathtub...

Kindleberger thus saw a dilemma. To cure the crisis and avoid or cut short the period of mass unemployment, the government must do something to increase the supply and decrease the demand for safe, high-quality assets. It must act as what he called a "lender of last resort" for the financial system. But, as he expressly, noted, this makes economic policy under such circumstances not a science but "an art." The rescuer of the system:

> should exist... but his presence should be doubted [beforehand].... This is a neat trick: always come to the rescue in order to prevent needless deflation, but always leave it uncertain whether rescue will arrive in time or at all, so as to instill caution in other speculators, banks, cities, or countries.... some sleight of hand, some trick with mirrors... because... [nonappearance] has such unhappy consequences for the economic system...

Bagehot, a century earlier, had thought he had a solution to this dilemma. Although the government should provide support and so transform what the market now regards as risky assets into safe ones, it must do so in a way that makes the original holders of those assets unhappy. It must make sure that those who would have lost wealth had the government not intervened do lose wealth. That is what he meant by saying that the government should only lend at a "penalty rate"—an interest rate that makes the original financiers unhappy, and poor. Whether the government does this by charging banks high interest rates on the money it lends them, on forcing the sale of assets to itself at distressed prices, by taking large ownership stakes in private financial institutions and so taking the lion's share of any future profits, or by direct nationalization at fire-sale prices is a matter of judgment.

It may even be impossible to carry out the "penalty rate" portion of Bagehot's injunction. As former Federal Reserve Vice Chair Donald Kohn observed in 2009, when the choice is between teaching a few thousand feckless financiers not to over-speculate on the one hand or avoiding the loss of the jobs of tens of millions on the other, there is really no choice at all.

How Has This Advice Been Implemented?

How are we doing? How has the U.S. government, and other governments, done at carrying out the proper policies for dealing with a Minskyite downturn?

What If the Government Had Let the Economy Alone?

One answer is that the government has done reasonably well: that the glass is two-thirds full on the "lend freely" component. Two economists, Alan Blinder and Mark Zandi, have made that argument most powerfully. Alan Blinder is a Princeton professor, a former Vice-Chair of the Federal Reserve, was an advisor to Barack Obama in the 2008 presidential campaign, and is a perennial on the short lists for senior economic policy positions under Democratic administrations. Mark Zandi is Chief Economist for Moody's economics.com website, was an advisor to John McCain in the 2008 presidential campaign, and will be a perennial on the short lists for senior economic policy positions under future Republican administrations.

They ask the baseline question: What would the economy look like today if the government had followed the policies recommended by the currently-dominant faction of the Republican Party and had done nothing starting in the summer of 2008? What if they had refused to rescue and support the banks, refused to spend government money on a recovery program, and focused instead on reducing the long-run deficit?

Then, they conclude, the unemployment rate today would probably be at 16%.

Instead, as of this lecture the unemployment rate is 9.6%.

The unemployment rate, in normal times, is between 4% and 6%—say 6%.

Blinder and Zandi thus conclude that the TARP and the TALF and the HAMP and Federal Reserve "quantitative easing" policies and extra deficit spending via the ARRA and all the other government interventions have accomplished 6.4% of a 10%-reduction-in-unemployment-relative-to-where-it-would-otherwise-have-been job. That is almost ⅔ of the job. The glass is about ⅔ full.

On the other hand, the glass is a little more than ⅓ empty as far as "lend freely" is concerned. In retrospect it is clear that the government should have been even more aggressive in promoting recovery, boosting spending, and supporting financial markets.

This conclusion—the ⅓ empty glass part—is reinforced by noting that current economic forecasts see little if any reduction in the unemployment rate over the next two years, and in fact a likely small increase in the rate of unemployment for a while.

The Failure to Lend at a Penalty Rate

If the glass of economic policy is ⅔ full as far as the "lend freely" part of proper economic policy is concerned, the glass is totally empty as far as the "at a penalty rate" part of proper economic policy is concerned. In fact, it is doubtful that there is a glass at all.