

Understanding the “Modern Chicago” View of the Financial Crisis

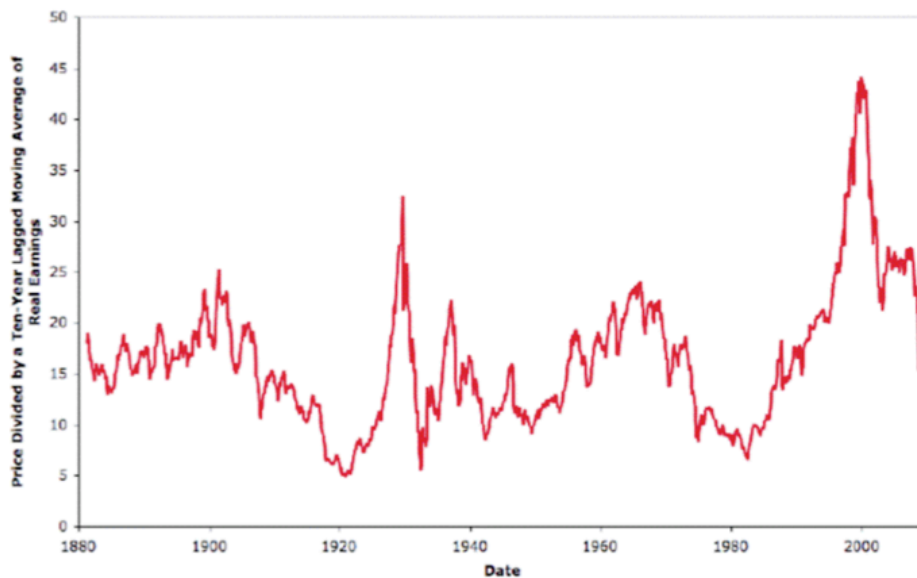
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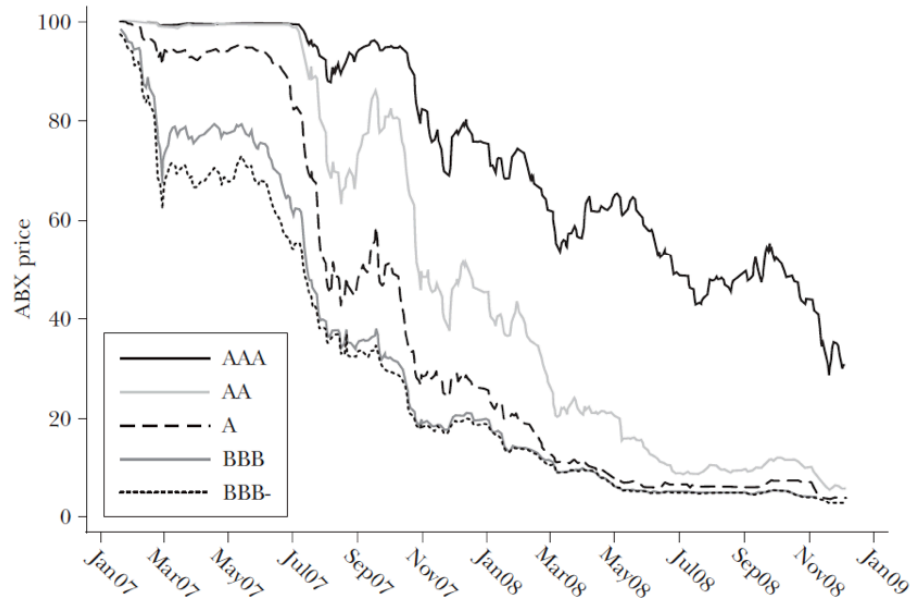
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Background:

The Graham Ratio



Decline in Mortgage Credit Default Swap ABX Indices
(the ABX 7-1 series initiated in January 1, 2007)

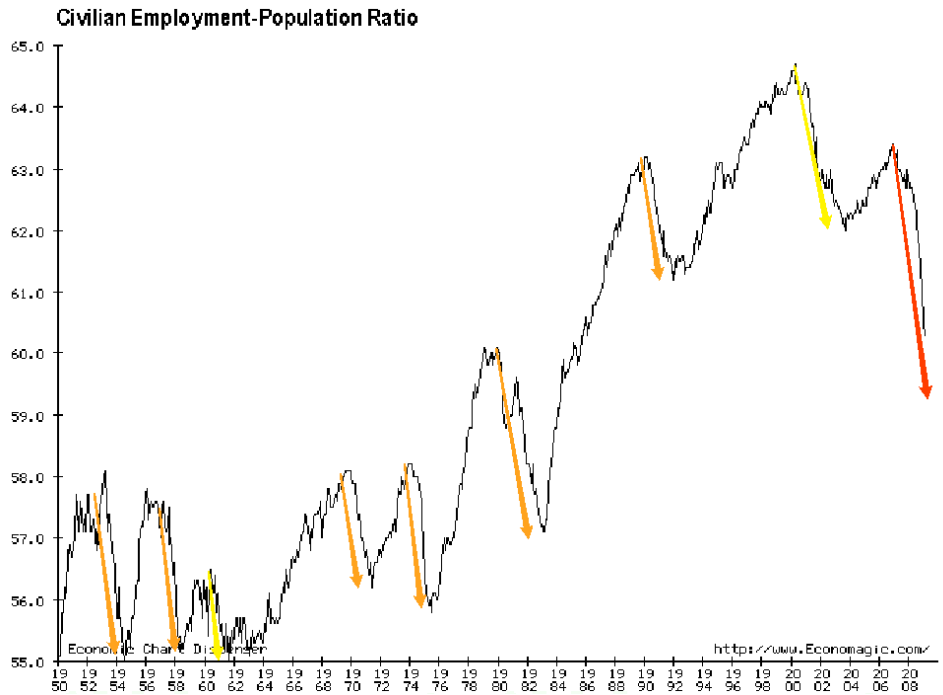


Each ABX index is based on a basket of 20 credit default swaps referencing asset-backed securities containing subprime mortgages of different ratings. An investor seeking to insure against the default of the underlying securities pays a periodic fee (spread) which—at initiation of the series—is set to guarantee an index price of 100. This is the reason why the ABX 7-1 series, initiated in January 2007, starts at a price of 100. In addition, when purchasing the default insurance after initiation, the protection buyer has to pay an upfront fee of $(100 - \text{ABX price})$. As the price of the ABX drops, the upfront fee rises and previous sellers of credit default swaps suffer losses.

Treasury-Eurodollar Spread



An interest rate spread measures the difference in interest rates between two bonds of different risk. These credit spreads had shrunk to historically low levels during the “liquidity bubble” but they began to surge upward in the summer of 2007. Historically, many market observers focused on the TED spread, the difference between the risky LIBOR rate and the risk-free U.S. Treasury bill rate. In times of uncertainty, banks charge higher interest for unsecured loans, which increases the LIBOR rate. Further, banks want to get first-rate collateral, which makes holding Treasury bonds more attractive and pushes down the Treasury bond rate. For both reasons, the TED spread widens in times of crises. The TED spread provides a useful basis for gauging the severity of the current liquidity crisis.



Understanding the “Modern Chicago” View:

As I see it, the modern Chicago view of the financial crisis is that the right thing to do in the financial crisis is:

- Increase the money supply

On the question of what else should be done, the modern Chicago view seems to be:

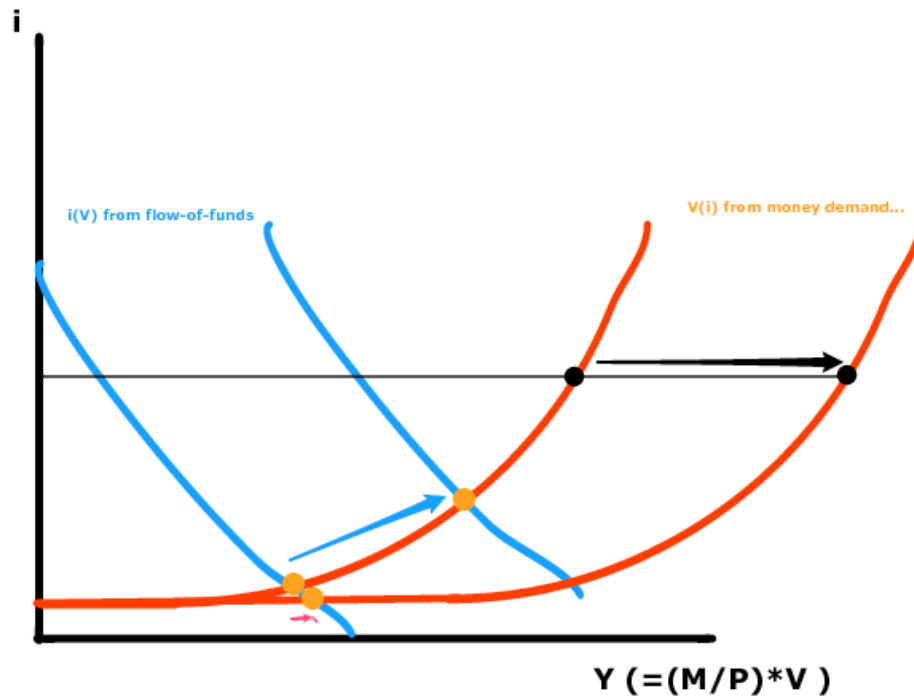
- Barro showed that fiscal policy does not work...
- Recapitalizing the banks creates moral hazard...
- Recapitalizing the banks may make it easier to expand the money supply...

- Fixing the credit channel makes microeconomic sense—but how to do that without either (a) socialism or (b) creating moral hazard...
- Fixing the credit channel may make macroeconomic sense because restoring “confidence” may boost velocity in some way...

I am finding it very hard to get there from the quantity theory of money...

Start with interest elastic money demand— $V(i)$. Multiply V by M/P to get Y , and you get the red line in the graph below. You need something to pin down I , and asset market supply and demand—savings equals investment—is the natural place to go. And so we have:

The Quantity Theory Plus Flow-of-Funds View:



(Which is, of course, the IS-LM view.) The IS-LM view would suggest that right now expanding the money supply:

- Creates one hell of a risk in terms of a potentially-inflationary monetary overhang for the future...
- Doesn't do much good because T-bills and cash are such close substitutes

Analyzing "Modern Chicago": Robert Lucas at the Council on Foreign Relations on March 31, 2009:

- Q: Is it fair to grab somebody's lunch talk before a friendly audience and dissect it in a hostile fashion when they are not here to answer back?
- A: Why not! It's fun!

So: Lucas:

(a) worries about the monetary overhang from expansionary monetary policies right now:

[T]he additional reserves the Fed has put into the system have induced double-digit growth... monetary aggregates.... [A]s confidence returns, which it will, velocity is going to return to pre-crisis levels and people are going to start spending more... add[ing] to the inflationary pressures.... [I]t's absolutely necessary for the Fed to be able and willing to reverse course and sell off the assets it has acquired.... There's nothing technically hard about unwinding these Fed positions fast.... But, it's going to take political courage, or some kind of consensus...

(b) doesn't have much of a model of velocity-which is a big problem if you are in some sense a quantity theorist:

[A]s confidence returns, which it will, velocity is going to return to pre-crisis levels...

(c) supports Bernanke in spite of the monetary overhang problem:

I don't think it's an argument against the policy that's being followed, and I hope when the crunch comes we'll do the right thing, but it's a concern...

(d) doesn't believe that fiscal policy can be effective at all:

[W]ould a fiscal stimulus somehow... add another weapon that would help.... I just don't see [how]... If the government builds a bridge, and then the Fed prints up some money to pay the bridge builders, that's just a monetary policy.... We can print up the same amount of money and buy anything with it.... [T]here are... different ways of getting the cash out there.... But if we do build the bridge by taking tax money away from somebody else, and using that to pay the bridge builder... then it's just a wash... there's nothing to apply a multiplier to. (Laughs.) You apply a multiplier to the bridge builders, then you've got to apply the same multiplier with a minus sign to the people you taxed to build the bridge...

(e) believes that Barro showed that increasing G does not affect PY:

And taxing them later isn't going to help, we know that....

(f) thinks that he is following the lessons taught by Friedman and Schwartz:

[T]his monetary response that we're in the middle of... is a response to the lessons of the 1930s.... I think the current

policy we're doing is the right one, and I just hope that we have the nerve to terminate it when it's done its job...

(g) seems greatly confused about the determination of PY when interest rates are at the zero nominal bound:

Christina Romer—here's what I think happened. It's her first day on the job and somebody says, you've got to come up with a solution to this—in defense of this fiscal stimulus, which no one told her what it was going to be, and have it by Monday morning. So she scrambled and came up with these multipliers and now they're kind of—I don't know. So I don't think anyone really believes. These models have never been discussed or debated.... These are kind of schlock economics. Maybe there is some multiplier out there that we could measure well but that's not what that paper does. I think it's a very naked rationalization for policies that were already, you know, decided on for other reasons...

(h) doesn't seem to have grasped that there is a problem with assuming that raising M impacts PY when cash and T-bills are nearly perfect substitutes:

The zero interest rate thing.... [L]ook what Bernanke's done already. After interest rates hit zero he's put \$1 trillion-plus into the economy.... [H]e's completely removed this zero interest bound as something we have to think of as a limit on what monetary policy can do....

(i) hasn't thought about banking policy's role in this:

I avoided this bank bailout issue in my 15 minutes and there's a reason for it. I don't really get it. Some of the problems you're talking about about deciding who gets paid and who doesn't, that's the whole function of bankruptcy

law is to deal with that in an effective way. Now, it may be that the kind of neighborhood effects of the bankrupt banks are sufficiently different from the neighborhood effects of a bankrupt auto company—that they need some kind of special treatment. But then it seems like the right public policy is something that—maybe some kind of accelerated bankruptcy proceedings....

(j) but thinks it would be a big mistake to try to fight moral hazard by letting the money supply shrink:

Friedman and Schwartz have got a lot to tell us about the current situation.... I said I was going to not deal with moral hazard. This is not the right time to worry about too big to fail, you know? What I'd say now is the failure of the bank is going to cause spill over effects that deepen this recession and so on, it's now—keep them alive. We're going to come out of this with a new regulatory structure, a new set of incentives and we're going to have to kind of start from scratch anyway. So in terms of you bailing out a bank and setting up incentives for the next 30 years for bank behavior, that's not what's going on right now I don't think...

Lots of issues here:

- Lucas thinks Ricardian equivalence means that fiscal expansion cannot boost nominal demand PY. That's simply wrong...
- The view that monetary velocity is a function of “confidence” is inadequate—the lack of any thinking about the determinants of V is kind of scary. Even R.G. Hawtrey arguing against Keynes back in 1926 had a better theory of velocity...
- The worry about unwinding the monetary overhang seems to suggest lines of thought that Lucas does not pursue...

- The claim that monetary policy is still very powerful as a tool to boost PY because Bernanke keeps on expanding the money supply after T-bill interest rates hit zero seems to simply miss the point...
- Lucas is very clear that you should not allow the money supply to shrink in order to “fight moral hazard” right now...
- Lucas is not at all clear about what you should do about the banking system

I think the basic lesson here is the one that Alfred Marshall taught every day. You need a model to discipline your thinking. Modern Chicago threw all its models out in the trash except for (a) the quantity theory with fixed velocity to explain the price level, and (b) RBC theory to explain fluctuations in production. And now that RBC doesn't seem to apply, their thought is completely undisciplined—and so they are making ancient and basic analytical errors all over the place.

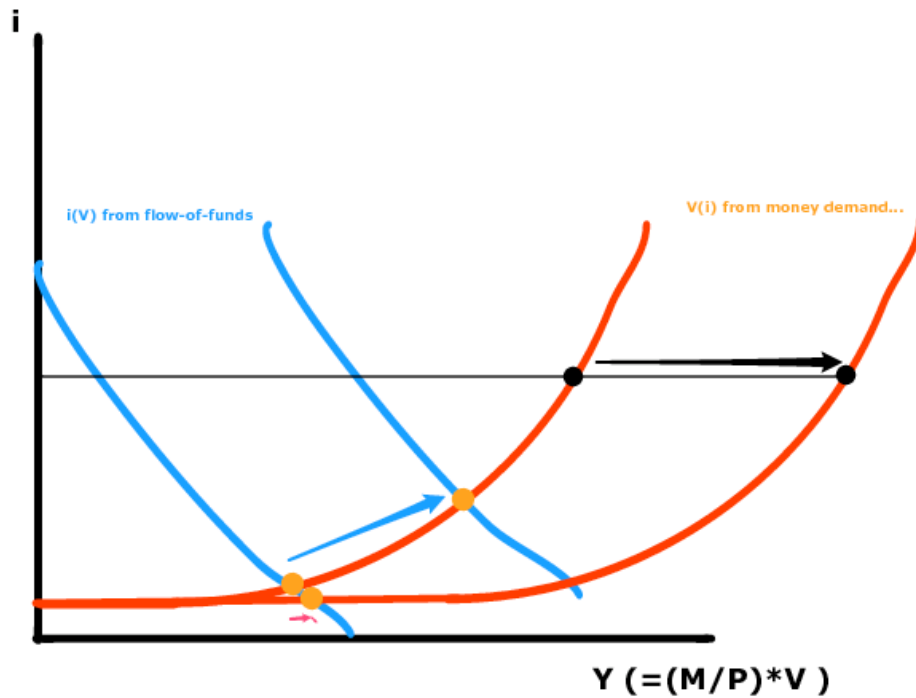
Let's start with the quantity theory:

$$PY = MV(i); \quad i \rightarrow 0 \Rightarrow \frac{dV(i)}{di} \rightarrow \infty$$

Need a second equation to pin down i . It is natural to get it from the asset market. Let B be the previous period's supply of bonds, I be the amount of new bonds created by nonfinancial firms, S be net savings by households, G be government purchases, and T be net taxes:

$$B + S(i, Y, Z) = B + (G - T) + I(i, Z)$$

If you accept this as the way to pin down i , it becomes plain that monetary expansion right now suffers from a great deal of crowding out—and so creates a large potentially-inflationary monetary overhang for the future.



It also becomes plain that either what the government does hits Y through the savings-investment balance, holding interest-rate spreads and other components of Z constant:

$$\Delta Y = \frac{\Delta G - \left[\frac{\partial S}{\partial i} - \frac{\partial I}{\partial i} \right] \Delta i}{\partial S / \partial Y}$$

Or it hits Y through changing Z —which is in fact the only way that asset swaps affect matters:

$$\Delta Y = \frac{\left[\frac{\partial I}{\partial i} - \frac{\partial S}{\partial i} \right] \Delta i + \left[\frac{\partial I}{\partial Z} - \frac{\partial S}{\partial Z} \right] \Delta Z}{\partial S / \partial Y}$$

I.e., by shrinking spreads.

So at least we now have a threefold taxonomy of things to do:

- Monetary policy (M)
- Fiscal policy (G, or T)
- Banking policy (Z)

Question: where does “quantitative easing” enter? Either nowhere, or through spreads — which are, remember, not just the spread between safe and risky, but between short and long, and between nominal and real.