

The economics of the Paulson plan

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The problem

- Banks are overburdened with mortgage securities and other risky debt instruments, and have difficulties rolling over their funding..
- The market is valuing mortgage securities at fire sale prices, according to Ben Bernanke.

The mechanism: reverse auctions, banks and other institutions bid to sell their assets to the government. The Treasury gets nonvoting call options in companies that participate.

The tradeoff: buy at prices low enough to preserve the taxpayer, but high enough to reinvigorate the financial system. The price will in all likelihood be in-between the fire-sale (current) price and the hold-to-maturity price. “An impaired mortgage security might yield 65 cents on the dollar if held to maturity. But because the market is so illiquid and suspicion about mortgage values so high, it might fetch just 35 cents in the market today. Recapitalizing the banks would mean paying as close as 65 cents as possible.”¹

The drawbacks

(1) *Asymmetric information.* Eligible assets are complex and hard to price; sellers tend to be more informed about their value. It is possible that a market for lemons develop, in which banks unload their least worthy assets to the government. Jeremy Stein (Harvard): “The scope for mischief is incredibly high”. Potential solution: invite other buyers in the auction process. Lawrence Ausubel (Maryland): set a price such that banks are willing, overall, to sell half of their assets. Darrell Duffie (Stanford): auction the most widely held securities first, which would help establish a general pricing framework. Douglas Diamond (Chicago): give the government an equity stake in a bank if the value paid for its securities ends up being too high.²

(2) *Free riding.* Suppose a given security is worth 40 today, 20 in the event of a collapse of the financial system, and 70 if financial institutions are successfully rescued by the Paulson plan. Also assume that the Treasury is willing to buy this security at a price in-between 40 and 70, say 60. In this case, most banks have every incentive to free-ride on others’ participation: they would abstain from selling their securities to the Treasury. To prevent this outcome, the Treasury would have to pay prices close to 70 to buy the securities: the banks would capture all the value!

The advantages

(1) *Relieve banks’ balance sheets* (“deleveraging”), reestablish their capital ratios at a level such that they are not vulnerable anymore and can (i) resume lending, (ii) raise capital.

(2) *Resolve the uncertainty with respect to the banks:* the plan provides a systematic way of dealing with troubled institutions (as opposed to the ad hoc approach used with, say, Bear Stearns or Lehman Brothers). This clarification should lift the uncertainty which led to a breakdown in the markets for interbank lending.

(3) *Resolve the uncertainty with respect to the assets:* the auction process will lead to examination and unloading (to a public entity) of the most complex and toxic assets which cripple the banks.

¹ Briefing America’s bail-out plan, *The Economist*, Sept 27 2008.

² Economists suggest how to structure distressed-debt auction, *The Wall Street Journal*, Sept 26 2008.

(4) *The auction would set credible and transparent prices* for the incriminated securities, which helps recreating a market. It would set a floor price.

(5) *The plan could make money for the state.* Jay Light (Harvard): “It isn’t clear it’s a bailout at all. (...) It may in fact be a very profitable investment.” Andy Kessler (former hedge fund manager): the plan could net a trillion dollars for the United States Treasury: “I am figuring Mr. Paulson could wind up buying more than \$2 trillion in notional value loans and home equity and CDOs for his \$700 billion. (...) Unlike Mr. Buffett or any hedge fund, the Treasury and the Federal Reserve get to cheat. It’s not without risk, but the Feds, with lots of levers, can and will pump capital into the U.S. economy to get it moving again. (...) My calculations, which assume 50% impairment on subprime loans, suggest it is possible, all in, for this portfolio to generate between \$1 trillion and \$2.2 trillion.”³

Why private investors cannot rescue the banks

One bank failure creates problems for other banks, especially because it damages confidence (the “domino effect”). In particular, the value of a given bank is extremely contingent on future events: if the financial system collapses, most debt instruments will be virtually worthless, even if they were held by relatively “good” banks. But one private investor cannot rescue all financial institutions. Previously, to pool resources and solve this coordination problem, the authorities would convene a meeting with the big banks – which obviously would not work in the current crisis. However, with its almost unlimited access to funding at a good interest rate (“deep pockets”), the state can solve this coordination failure.

Alternative ideas

Insurance plan for bank assets. Taxpayers would bear all the downside risk, but have no upside. Besides, the assets would remain on the banks’ books.⁴

Investing in banks’ equity. A dollar of new equity would support \$10 in assets. Problems: (i) Only very troubled banks would participate, (ii) Banks’ stocks could plummet, (iii) A nationalization could scare off private investors, (iv) Politicians in control of banks could use them for political purposes.⁵

Prevent inevitable foreclosures. This would only postpone the time that housing and mortgage securities find a bottom.⁶

Similar programs

Reconstruction Finance Corporation (independent U.S. government agency), set up in 1932, in the context of the Great Depression:

- Lent to corporations, local governments, banks, and insurance companies.
- Recapitalized banks by buying preferred stock, which permitted lending to resume.

Resolution Trust Corporation (independent U.S. government agency), set up in 1989, in the context of the savings and loans crisis:

- Bought and sold off the assets of troubled or liquidated banks and financial institutions.

Troubled Asset Relief Program (“Paulson plan”), set up in 2008, in the context of the subprime crisis:

- Purchase mortgage-backed securities and other debt instruments from under-capitalized banks.

³ The Paulson plan will make money for taxpayers, *The Wall Street Journal*, Sept 26 2008.

⁴ The Washington panic, *The Wall Street Journal*, Sept 29 2008.

⁵ I want your money, *The Economist*, Sept 27 2008.

⁶ The Washington panic, *The Wall Street Journal*, Sept 29 2008.