Auctions for Injecting Bank Capital

Lawrence M. Ausubel and Peter Cramton*

10 October 2008

Public discussion has turned, in the past few days, toward using some of the $700 billion in rescue funds for the injection of government money into banks in return for ownership stakes. The purpose of this short note, an addendum to “A Troubled Asset Reverse Auction,”[1] is to describe an auction mechanism suitable for injections of capital into banks. The auctions would price the equity purchases through a competitive process. The elements of such a mechanism are as follows:

- For any participating bank, securities would be defined that meet the legislation’s criteria. These might, for example, be: shares that are nonvoting for the initial five years (but are otherwise identical to the existing common stock); shares of preferred stock; warrants on common stock or preferred stock; or senior debt instruments.
- A specified percentage of x% of each security would be sold to the government, and the balance would be sold to private investors. (An illustrative value for x is 50%.)
- The offering of the securities to private investors would be conducted by a uniform-price (sealed-bid or dynamic) auction. The government and private investors would receive *identical* securities and would pay *identical* prices.

Conceptually, the auction could operate in either of two ways:

- A fixed number of shares of each given security is specified, and the auction determines a price for these securities.
- A fixed amount of money is allocated by the Treasury for each security, and the auction determines the quantity of shares that will be purchased. Note that, in the event that private investors cannot be found to invest the specified private sector match of funds, then the amount allocated for the security would be reduced or the offering withdrawn.

The Emergency Economic Stabilization Act of 2008 expresses a preference for utilizing market mechanisms: “In making purchases under this Act, the Secretary shall (1) make such purchases at the lowest price that the Secretary determines to be consistent with the purposes of this Act; and (2) maximize the efficiency of the use of taxpayer resources by using market mechanisms, including auctions or reverse auctions, where appropriate.”[2] The Act also expresses a preference for private sector participation: “The Secretary shall encourage the private sector to participate in purchases of troubled assets, and to invest in financial institutions, consistent with

---

* Larry Ausubel and Peter Cramton are Professors of Economics at the University of Maryland. Correspondence to: ausubel@econ.umd.edu and pcramton@gmail.com. The views expressed are solely the opinions of the authors.

[1] Ausubel, Lawrence M. and Peter Cramton, “A Troubled Asset Reverse Auction,” University of Maryland Working Paper, most recent version dated 5 October 2008.

[2] Section 113(b) of the Emergency Economic Stabilization Act of 2008.

the provisions of this section."[3] There are good reasons for each of these preferences. First, use of market mechanisms should help to assure that taxpayers pay a fair price for any bank shares. Second, a transparent rules-based process will minimize favoritism and corruption. And, third, private sector participation will both leverage the government's efforts and provide independent monitoring of the process.

Although auctions for securities of different banks could be conducted in sequence, there are good reasons to consider conducting them in simultaneous dynamic auctions — in this case, these are simultaneous *ascending* auction, since multiple private investors are competing to *buy* the securities of each bank. From a private investor's perspective, the securities of different banks are related in two important respects. First, their valuations are based in part on common systemic factors, such as the prospects for the subprime MBS market. Second, each private investor has only a limited amount of capital (or risk tolerance) for investing in banks requiring capital injections, and simultaneous dynamic auctions would enable investors to balance their capital commitments to different banks. The ability to adjust commitments during the auction encourages efficient price formation and reduces investor risk. Simultaneous auctions might also enable the Treasury to better manage its capital injections among the different banks.

Comparison with related proposals for injecting bank capital

Over the past several weeks, a wide variety of economists, including Charles Calomiris, James Galbraith, Glenn Hubbard, Paul Krugman, Edmund Phelps and Joseph Stiglitz, have been quoted in favor of recapitalizing banks by purchasing their securities. The implicit assumption generally has been that the purchases would be based on the market price of the bank stock on the public exchanges. However, there are several difficulties in this. First, using the market price during a specified time period would present opportunities for banks to manipulate the price. If, instead, investors were required to inject their own new capital at the same price, the opportunities for manipulation would be reduced. Second, the securities received by the Treasury would be different from those publicly traded. In particular, the Treasury's securities would not be voted, and they would reflect the post-dilution (not pre-dilution) value of the securities. Selling identical securities to the public and private sectors would resolve this issue. Third, it is clearly desirable to leverage the Treasury's limited resources with private resources—and the Emergency Economic Stabilization Act of 2008 clearly encourages this.

Recently, Greg Mankiw proposed "The government can stand ready to be a silent partner to future Warren Buffetts. It could work as follows. Whenever any financial institution attracts new private capital in an arms-length transaction, it can access an equal amount of public capital. The taxpayer would get the same terms as the private investor. The only difference is that government's shares would be nonvoting until the government sold the shares at a later date."[4] This is closely related to our auction recommendation, but the auction has several advantages. First, in our proposal, the taxpayer gets the exact same terms as the private investor. (By contrast, a typical private deal is accompanied by other explicit or implicit exchanges of value, including but not limited to voting shares and board seats, that would be unavailable to the government.) Second, use of an auction would help to assure that the private transaction is truly arms-length. Third, we describe an explicit market mechanism that would be straightforward to implement.

[3] Section 113(a)(3) of the Emergency Economic Stabilization Act of 2008.

[4] Greg Mankiw's Blog, http://gregmankiw.blogspot.com/2008/10/how-to-recapitalize-financial-system.html.