CCP AUCTIONS

FRB Chicago

April 12, 2013

Problem Definition

- Each partner in the exchange is short out of the money puts with each counterparty
  - Though perhaps firms, particularly weaker firms, can hedge their risk
- Posted collateral will often but not always be sufficient to cover cost of liquidating positions
  - This changes any auction, though perhaps non-members would wish to bid as well
- Objective is to reallocate the portfolio of the defaulter, considering price and efficiency.

Difficult Problems

- How to divide up the portfolio of the defaulter?
- How to determine prices?
- Example: Could simply declare that in the event of default the portfolio will be split up into shares and remaining firms will get a proportional share of the portfolio at a price that exhausts the posted collateral.
  - But maybe there are ways to get more efficient auction allocations
  - Maybe there are ways to get prices that better protect the unsecured creditors of the defaulter (or give the other firms an unsecured claim to compensate for inadequate collateral)
  - Maybe it's inefficient to have the portfolio split so many ways

My View of the Most Important Thing

- Important that allocation of potential losses be clearly defined and credibly allocated to the private sector ("Coasian" approach)
- If this happens private investors will have incentives to "get things right"; risks will get reallocated, the market will innovate positively
- Contrast with a complex regulatory system where incentives are to innovatively game the system, making the rules less robust over time

Auction-Theoretic Issues

- Bidding strategy differences depending on whether collateral is likely to be adequate/inadequate
  - When inadequate collateral bids are effectively combinations of bids and asks (toeholds)
  - This effects “private value” auctions and even more “common value” auctions as big owners have a greater incentive to bid aggressively
    - Private value: like strategic bidders for a company
    - Common value: more like financial investors, so that with the same information bidders would have about the same value

Bundling Assets for the Auction

- Can split the portfolio up into shares; a firm can buy the share for which it is responsible (or more or less)
- May make sense if taking 2x the risk requires more than 2x the reward
  - But “fixed costs” may push towards fewer buyers
- Auction theory of multiple unit auctions says that to induce truthful bidding big bidders will get lower average price (Vickrey method)
- But problem is further complicated by possible “ownership” and by “common value” element

More Bundling Assets

- Are there ways to group assets to minimize exposure of buyers? (beyond my pay grade but…)
- If it is clear how to do this then great
- If not then a simultaneous multiple round auction where many portfolios are sold simultaneously might make sense (bidders can themselves decide which portfolios are complementary)
- Can parts of the portfolio be sold simultaneously?
    - In spectrum auctions bidders can move "eligibility" from one auction to another as the auctions progress; simultaneity may help with "exposure problem"

Common Values

- Bidder value may be a function of own information plus others' information
  - Implication is that ascending auction, which allows for the revelation of some of this information, may have benefits vs. sealed bid one shot
  - (advantage of sealed bid first price auction is that there may be less variation in pricing)

How much information should be provided about portfolios?

- Concern that if too much information is provided the buyer will be at a disadvantage in trying to sell out
- Akin to problem of creating a “black book” for bidders in the sale of a company

Conclusion

- Most important thing is clear and credible “property rights” in losses
- Should members be allowed to lay off risk; should non-members be allowed to bid in any auction?
- How should portfolio be broken up?
- Great range for the details of an auction and the details can be enormously important