Clearing House and Counterparty Default Risk in Derivatives Market

Poonam Mehra
Clearing House and Counterparty Default Risk in Derivatives Market

The process of “clearing” involves post-trade operations that include trade matching, confirmation and clearances, and risk-management activities such as, netting, collateralization and procedures that mitigate or eliminate some forms of credit risk. Although the risk management activities of the clearing process are essential to both the stock and derivative markets, this article focuses on the derivative market which has come to the forefront of policy debate particularly in the aftermath of the financial crisis of 2007-2008.

Derivatives contracts are agreements to make payments or buy/sell something at some time in the future period, where the period could range from a few days to many years based on the value of the underlying asset or index in case of futures/forwards and, in the case of options, the decision of one of the counterparties. Typically, one of the primary risks associated with a derivative contract is the counterparty risk, i.e. the risk of one counterparty failing to honor its obligation and hence defaulting. If this risk is allowed to persist, it can lead to loss of confidence in the system and eventually the system can dwindle.

Eliminating this uncertainty is the function of a clearing house which comes into play during the trade clearance stage of the clearing process. At this point the clearing house becomes an official “party to every trade,” substituting itself as a seller to every buyer and a buyer to every seller. In interposing itself this way, the clearing house legally assumes the obligation of guaranteeing the execution of each trade to other clearing members, should one of the clearing members default or fail. There are also two financial aspects to this risk management function of the clearing house. First of all, the clearinghouse attempts to reduce the risk that a clearing member will not be able to honor its commitments by setting capital requirements, position limits, and other financial standards for members, collecting margin payments on open positions and continuously monitoring the financial strength and portfolio positions taken by member firms. Second, the clearinghouse makes provisions for fulfilling its guarantee by envisaging a guarantee fund and sometimes by establishing rules permitting it to make an ex post assessment of its solvent members to cover any defaults.

Normally the default risks insured by the clearinghouse, as discussed above, are idiosyncratic affecting relatively small subsets of traders. For mitigating such idiosyncratic risks, the effectiveness of clearing house is well established. However this risk could be systemic i.e. the risk could be that derivatives contracts can lead to failure of major financial institutions as seen during the financial crisis of 2007-08. While one school of thought argues that the systemic risks could be mitigated by provisioning mandatory clearing of all derivative contracts through the clearing house, there is another school of thought which is skeptical about the effectiveness of the clearing house against systemic risk. This latter school argues that the ability of the clearing house in handling systemic risk is adversely affected by information related problems, particularly moral hazard and adverse selection. Whether the clearing house with its current mechanisms would be able to match up against systemic risk or it would need to equip itself better in handling the information problems is going to be a top agenda in the policy debate as the world gears itself up against potential financial turmoil!