

Clearing and Settlement

The clearing process involves two primary tasks: trade comparison (matching of trades) and settlement (delivery of securities or book entry). *Clearing* refers to the settlement of claims of financial institutions against other financial institutions. The operations department of a financial institution, often referred to as the institution's back office, is responsible for handling or overseeing the clearing and settlement processes. Confirmation is the first step of the clearing process. When trades are executed, buyers and sellers record trade details. Brokers and dealers receive confirmations that the trade has been executed and pass on details of the confirmation to clients. The typical confirmation document received by the client reports the stock's name and CUSIP number (the security's 9-character alpha-numeric identifier issued by the Committee on Uniform Security Identification Procedures), the number of units traded, the security price, the broker commission and other fees, along with trade and settlement dates.

Trade comparison is the second step in the clearing process. Only approximately 5% of over 5,000 brokerage firms are self-clearing; that is, only 5% are capable of clearing trades for themselves. Other brokers, known as correspondent firms, forward their orders to a *clearing firm*, a firm that is authorized by a clearing house (defined below) to manage trade comparisons and other back office operations. Leading clearing firms include Pershing, LLC and National Financial Services, LLC. Trades are said to be cleared when the counterparties' records are identical. This happens for the vast majority of trades. *Out-trades* in futures markets or *DK's* (*Don't Knows*) in other markets, which are trade reports with discrepancies resulting from recording errors, misunderstanding and fraud, are sent back to traders to resolve or reconcile.

A *clearing house* clears transactions for a market such as the NYSE and is typically established that market or members of that market. The *National Securities Clearing Corporation* (NSCC, a division of the Depository Trust and Clearing Corporation, described below) is the successor to the combined clearing corporations of NYSE, AMEX and NASD. NSCC serves as the clearing agent for these markets as well as for many bond markets. Its primary facility for clearing is the *Securities Industry Automated Corporation* (SIAC), which maintains the computer systems for clearing. Clearinghouses clear and settle trades for most options, futures and swap markets. The Board of Trade Clearing Corporation (BOTCC) clears and guarantees trades for the Chicago Board of Trade. All U.S. options exchange transactions are cleared through and guaranteed by the Options Clearing Corporation (OCC).

Netting is one of the most functions of the NSCC. The number of securities transactions that occurs each day is huge. The NSCC uses an automated system through SIAC to "net down" or reduce the number of trading obligations that require financial settlement. Since most brokerage firms execute large numbers of both buy and sell transactions for the securities that they trade, netting down results in only about 3% of the total reported matched or offsetting transactions actually having to be settled between financial institutions. At the end of the netting process, the NSCC delivers to each brokerage firm settlement instructions.

Trade settlement occurs when buyers receive their securities and when sellers receive payment for their securities. Stock ownership in most cases is evidenced by a certificate. The *Depository Trust & Clearing Corporation* (DTCC) holds stock certificates of member firms, registering them in member names and maintaining computerized records of ownership and transfers.⁹ The DTCC holds over 5.5 million stock certificates worth over \$20 trillion. The securities are held in street name, meaning that securities are held in the names of brokers (nominee names), who, in turn, maintain their own records of ownership in client accounts. Settlement of a trade is completed when the DTCC transfers the ownership of the shares from the selling firm to the buying firm in its automated book-entry recordkeeping system and transfers money between firms with net credits and net debits. Firms that have net credit after end-of-day netting are owed more by other brokers than they are owed. The NSCC transfers money to banks of these net credit firms from accounts of brokers with net debits through the Fedwire system. Federal law requires that settlement occur within three days after the transaction. In addition, the DTCC provides cost basis information and other information services. The DTCC owns the Depository Trust Company and the National Securities Clearing Corporation. As of year-end 2006, DTCC held on deposit approximately \$36 trillion in securities and processed 8.5 billion transactions during the year. The NSCC and the DTCC require brokerage firms to maintain collateral to ensure that they fulfill their obligations.

⁹ In the case of Direct Registration Systems such as Dividend Reinvestment Plans, the issuing firm will place the security certificates with a transfer agent.