

SHORT SELLING

Short selling is a financial strategy in which an individual sells borrowed shares in anticipation of a decline in market value to repurchase the shares at a lower price and make a profit.

To execute a short sale, the individual must first locate and obtain the shares from a broker. The broker's source of shares may be the holdings of another customer's margin account. This customer is unaware of this activity but suffers no economic harm. The broker will return the shares when the short seller repays them (usually a few days later). Exchange-traded funds (ETFs) are also frequently used as sources of borrowed shares. ETFs must hold the shares to track the benchmark index they are designed to mimic. The borrower, therefore, avoids the possibility of a recall by the lender.

Three types of risk are associated with short selling: price risk, recall risk, and cash distribution risk. Price risk arises from the possibility of an unlimited increase in share prices, resulting in financial ruin. Recall risk refers to the lender's ability to recall the loaned shares at their discretion, potentially causing the borrower to purchase shares at a higher price than anticipated. Cash distribution risk arises when a corporate distribution, such as a cash dividend, occurs, requiring the short seller to pay the distribution to the lender.

Short sellers often borrow shares from ETFs to reduce the likelihood of recall by the lender. In a typical short sale, the borrower provides the lender with collateral (usually cash) equal to the security's market value plus a haircut, and the position is marked-to-market and settled daily. The lender pays the borrower a rebate rate, the risk-free rate minus a lending fee dependent on the available security supply. Securities in short supply are referred to as "special" or "hard-to-borrow" and have higher lending fees and lower rebate rates. Since supply varies from day to day, lending fees range. Most securities are "easy to borrow" and have a baseline lending fee called the "general collateral" or "GC" rate. It is typically around 0.25 bps. The cost for a short position is calculated by multiplying the short market value by the stock borrow rate and dividing by 360.

References

D'Avolio, Gene, 2002, The market for borrowing stock, *Journal of Financial Economics* 66, 271-306.

Reed, Adam V., 2013, Short selling, *Annual Review of Financial Economics* 5, 245-258.