Chapter 12:

Short Selling

Menachem Brenner and Marti G. Subrahmanyam

I. Background

Until the current global financial crisis, the practice of selling shares that one did not own, known as short-selling, was generally permitted in most countries. Of course, there were some restrictions placed on such transactions, such as the need to borrow the stock **prior** to the sale ("no naked shorts"), selling at a higher price than the previous trade ("the uptick rule") and disallowing short-selling to capture gains and postpone tax payments ("no shorting against the box").

In a dramatic decision in the early weeks of the current crisis, the SEC banned short-sales of shares of 799 companies on September 18 and lifted the ban on October 8, this year. However, most countries around the globe, and in particular, the U.K. and Japan, which are homes to the two other major financial centers, London and Tokyo, have declared a ban on *short selling* for "as long as it takes" to stabilize the markets. Even in the U.S., there is continuing pressure on the regulators to reinstate the ban, at least in selected securities.

II. The Issues

The immediate policy issues are as follows:

- Should there be any restrictions on *short selling* equity shares of individual companies, if not a total ban on such transactions?
- If so, what specific restrictions should be instituted, and under what circumstances should they be enforced by the regulators?
- What is the appropriate framework for timely reporting of short interest and/or short sales to ensure transparency of these transactions to the market?

III. Financial Markets: Fairness and Efficiency

A highly desirable feature of financial markets is that they be fair to all participants who wish to trade. An aspect of this fairness is that these markets operate in a transparent manner, making available information to all participants at the same time, so that the markets can be efficient. In efficient financial markets, the prices of financial assets reflect all available information - favorable and unfavorable - that may affect the magnitude and the risk of future cash flows from these assets. For markets to be efficient, we need to allow for the unimpeded flow of such information and the unfettered actions of all participants in the markets. Along the same lines, an important tenet of adequate regulation and taxation of financial markets is the symmetrical treatment of buyers and sellers of financial assets. This symmetrical approach should always prevail, as an Occam's razor, in normal times and during a crisis, so that neither party has an unfair advantage. Exceptions to this principle ought to be few and far between.

The combined actions of buyers and sellers reacting to new information, both public and private, as well as their own liquidity needs, causes the information to be reflected in market prices. This process, often referred to as price discovery, occurs not just as a result of purchases and sales of *current* owners of the equity of a company, but also by those of *potential* buyers and sellers. Thus, any restrictions on *short selling* not only constrain the supply of shares from short sellers, but also inhibit the demand from potential buyers. This reduction in transactions, in turn, curtails liquidity and causes prices to fall further. It also increases liquidity risk, if the volume of these future transactions is uncertain. Thus, a ban on short sales would generally have adverse consequences for liquidity, and hence, for the prices of such securities.

IV. Who Benefits from Short Sales?

For the most part, short sellers are market makers (in the stocks and in equity derivatives like options and futures), hedgers of various sorts (such as buyers of convertible bonds), risk arbitrageurs (profiting from the relative mispricing of the stocks of acquirers and targets in acquisitions) and hedge funds that use long-short strategies (where they buy "undervalued" stocks and sell short "overvalued" stocks). Of course, pessimistic speculators who deem a stock to be overvalued may also take risk by selling it short, hoping to be rewarded with an appropriate return. By the same token, if their guess proves to be wrong, they will pay a heavy price, since their losses would be potentially unlimited if the stock rallies, contrary to their expectation (see the recent example of Porsche and Volkswagen in Germany). Of course, optimistic speculators would take the other side, with concomitant risks and rewards, ensuring a nice symmetry in the actions of speculators. The collective action of all these participants provides the following benefits: Information about the company is disseminated faster than in a market with restrictions on short-selling, volatility is reduced, the risk premium is diminished and, most importantly, liquidity is enhanced.

In fact, speculators who are considered the culprits in the recent decline of financial stock prices actually provide benefits to investors. By supplying important liquidity to the market, they lower the transaction costs that investors pay to execute their trades. Ultimately, investors are willing to pay for this improvement in liquidity, raising the prices of liquid stocks, in relation to their less liquid counterparts.

When market prices decline due to adverse information, many market participants, such as mutual fund managers, want to avoid booking a loss. Thus, they are reluctant to sell losing stocks even if they consider them to be overvalued. Their withdrawal from the market in such times causes their pessimistic views not to be reflected in the stock price. This "irrational" behavior is remedied, to some degree, by the rational activity of short-sellers who step in and incorporate their negative views into the market by their sales. The pessimistic information is then reflected in market prices. If not for these short-sellers, potential buyers would not be able to consummate their purchases in the market as easily, since there would be fewer potential sellers.

V. Market Manipulation and Regulatory Response

Regulators as well as the exchanges may be required to intervene in the event a stock is manipulated by spreading unfounded rumors about a company, especially in the case of small companies or where the floating stock in the market is a small proportion of the outstanding shares. Spreading false information is equally harmful whether the information is positive or negative. Thus, the Securities and Exchange Commission (SEC), the Financial Industry Regulatory Agency (FINRA) and the exchanges, and their counterparts in other countries should take steps in such cases, even going to the extent of halting trading in extreme cases, and enforcing strict penalties on the perpetrators of the manipulation, if possible. A so-called "bear raid," i.e. selling a stock short with the intention of forcing the price down in order to buy it back later at a lower price, falls under the term "manipulation" and should be treated as such. However, even in clear-cut cases of market manipulation, a ban in one direction is not the answer. It goes without saying that this discretion should be used very sparingly, since the test of whether the information is indeed false may be difficult to implement, in general.

It has been argued that short sales in a particular stock can affect the stock price adversely by triggering stop-loss orders and margin calls for leveraged investors who are then forced to sell. This presumes that other investors ignore this deviation from fundamental value and stay on the sidelines. A related argument is often made in the context of highly leveraged firms such as those in the financial services industry; in this case, it is argued a decline in the stock price triggers demands for collateral or additional capital to meet capital adequacy requirements, in the case of banks. This may indeed happen, but it should be emphasized that it is caused by *selling*, rather than *short selling*, in particular. In this case too, if the regulators believe that selling should be restrained, because it is based on incorrect or misleading information, the appropriate regulatory prescription is to halt all trading, rather than banning short sales.

What about the argument that *short selling*, in certain industries, such as banking or financial services, may have systemic consequences and thus should be treated differently? As with the argument that a particular firm is "too big to fail," what are the boundaries of this argument? Which firms and industries should be covered? Is systemic risk confined to the banking industry or can similar arguments be made for other industries such as automobiles and health care? As the current debate on the bailout for the automobile industry well illustrates, it is difficult for legislators and regulators to agree where the "systemic risk" and "too big to fail" arguments end. The steady stream of appeals of bailouts from several industries, in the US and in other countries, illustrates how difficult it is to circumscribe the extent of public support for particular firms and industries.

A particular issue that arises in the context of *short selling* is whether "naked" *short selling*, which involves selling shares without having to borrow and deliver them in the first place, be permitted. Naked short sales lead to the possibility of creating an unusually large supply of stocks, larger than the number of shares outstanding, since the "same" stock could be offered and sold at any particular instant several times over. Consequently, it may sometimes create a temporary pressure on prices away from fundamental values. To prevent such abuse, the regulator should strictly enforce the current requirement that one must borrow the stock *prior* to a short sale. If "naked" *short selling* is disallowed, then the maximum number of shares offered for short sales that could be offered simultaneously is the number of shares outstanding. This should alleviate the pressure on the stock price in one direction. It will also reduce the possibility of manipulating stocks that are difficult to borrow: small stocks or those that have a small "float". That said, we should continue the current practice of exempting market makers in stocks, futures and options from borrowing the stock as long as they turn around their position in a rather limited time period. (In the current electronic age, it may be prudent to reduce the current six day settlement period to a day or two).

What about the “uptick” rule, another frequent issue that crops up in the context of short sales? Although *short selling* has been permitted for a long time in the U.S., there was a restriction on the timing of the sale in the form of an uptick rule where a short sale could not be undertaken following a “downtick” or decline in the stock price. The traditional argument was that this brings pause to the momentum caused by a wave of selling. However, there is no clear evidence of its efficacy. Indeed, in the spirit of improving market liquidity, the uptick rule was lifted last July based on a pilot study of 1,000 stocks, commissioned by the SEC. Reinstating the uptick rule, as has been advocated by many market participants during the current crisis, is again a violation of the symmetry principle and is a futile and costly exercise. Forcing sellers to sell only when prices tick up prevents the rapid dissemination of negative information. If indeed there is adverse information about a company, there is no reason to impede the flow of this information into the market and reflection in market prices, by adding frictions to the normal process of price discovery. Existing owners of the stock, as well as participants in the derivatives markets, who are not bound by the uptick rule, will be able to sell the stock or its equivalent, using replicating strategies, creating an inconsistency between different investors and markets for the same stock. The most telling problem with the uptick rule is the sheer unenforceability of the rule. There are many trading strategies that allow market participants to get around the rule. It is sufficient to cite just one common strategy, which is akin to "shorting against the box": During an up or flat market, traders can buy stocks in one account and sell short the same stocks in another account, effectively having a neutral position that enables them to sell the stocks they own without being bound by the uptick rule.

At a broader level, the wealth of available evidence suggests that restrictions on short-sales are largely ineffective in halting declines of stock. All they do is throw some sand in the gears and delay the inevitable incorporation of bad news into stock prices. Academic research suggests that stocks with greater short-sales constraints exhibit greater "momentum" return[1], i.e., they will eventually experience greater volatility. Similarly, stocks were shown to be overpriced when there were short-selling constraints, especially during the internet bubble. These stocks had significantly more negative returns when the constraints were eventually relaxed[2]. It has been shown that in countries with fewer short-selling constraints, there is more efficient price discovery, less co-movement of stocks and lower volatility than in those where short-selling is more restricted[3]. Most importantly, no study has shown that short-selling constraints reduce the likelihood of crashes.

---

[1] See Ali A. and M. Trombley 2006, “Short Sales Constraints and Momentum in Stock Returns”, *Journal of Business Finance and Accounting,* 33, pp. 587-615.

[2] See Ofek E. and M. Richardson, 2003, "DotCom Mania: The rise and fall of internet stock prices", *Journal of Finance*, 58, pp. 1113-1138 and Jones C. and O. Lamont 2002, "Short-sale constraints and stock returns", *Journal of Financial Economics*, 66, pp. 207-239.

[3] See Bris A, Goetzmann W. and N. Zhu, 2007, "Efficiency and the Bear: Short Sales and Markets Around the World", *Journal of Finance*, 62, pp. 1029-1079.

VI. Transparency and Reporting

As argued above, a strong case can be made in favor of allowing *short selling* and against the imposition of various restrictions on this activity. These arguments presume that information is available to market participants in a timely manner. Thus, transparency in the form of *timely* reporting is a precondition for efficient financial markets. In most markets, such information is not always available to prevent potential, albeit rare, abuses which some believe are prevalent in the market. We propose that daily *short selling* trading activity, and not just short interest reported with a lag, on all listed stocks be transmitted online to the exchange/the clearing corporation. Every short sale that appears on the sales and trade ticker should be marked as such. (Of course, the identity of the seller would not be public information.) This change in reporting requirements will also provide us with timely *short selling* trading activity and short interest information. It will also make it easier for the exchange/clearing to check if the stock was borrowed and is being delivered. This should not be burdensome, as the FINRA has put in place a system for collecting similar information from the over-the-counter corporate bond market, known as the Trade Reporting and Compliance Engine (TRACE). TRACE has contributed to the efficiency and liquidity of the corporate bond market and a similar effort in the stock market with regard to *short selling* should have a salutary effect on market liquidity and efficiency.

Conclusion

Short selling is an important activity in a well functioning financial market. Its contribution to price discovery, lower volatility and liquidity improve the fairness and efficiency of markets. A short sale should be considered on a par with a sale by existing shareholders and hence, treated the same as buying activity, its symmetrical counterpart. It goes without saying that regulators should be extremely concerned with market manipulation that may be perpetrated by buyers or sellers, including short sellers, and take appropriate and timely action to curb such practice. Regulators should also strictly enforce the requirement that stocks should be borrowed *prior* to a short sale by any investor who is not a market maker. In the interest of transparency and consistency, the regulators at the SEC, FINRA and the exchanges, and their counterparts in other countries should require timely reports on *short selling* activity, in line with the existing reporting requirements placed on buyers and sellers.