



SECURITIES LENDING AND SHORT SELLING

Particularly at times when equity prices are falling, commentators sometimes criticize securities lending on the grounds that it facilitates short selling of securities, which – it is claimed – can exacerbate price falls. Typically they question why beneficial owners lend securities or call for tighter regulation of securities lending and/or short selling.

ISLA's position on this issue is as follows:

- Academic research, summarised in the paper below, has shown that restrictions on short selling reduce market efficiency and liquidity. Studies have found that allowing short selling:
 - means prices adjust more quickly to new information about fundamentals
 - decreases the likelihood of price bubbles
 - leaves unchanged or even reduces the probability of price crashes
 - may lead to higher equilibrium prices: because investors have greater confidence that prices are fair and therefore require lower returns to compensate them for risk.
- In its 2002 Discussion Paper, the UK Financial Services Authority concluded that short selling is a 'legitimate investment activity which plays an important role in supporting efficient markets. It accelerates price corrections in overvalued securities, it supports derivatives trading and hedging activities and facilitates liquidity and trading opportunities. We therefore see no case for any prohibition on short selling, either generally or for particular stocks in times of market stress.'
- Only a proportion of short sales reflect a simple directional view that a share price will fall. More commonly short sales are to hedge long positions in the underlying shares or associated derivatives: for example, selling the components of an index short against a long position in the index future; or selling shares short in order to delta hedge an options position.

- Not all securities borrowing is to finance short sales. Particularly in the fixed income markets, securities are increasingly borrowed by banks and dealers as part of financing strategies. Securities are lent in order to transfer ownership temporarily to another party subject to a lower tax rate on dividends. And securities are borrowed in order to avoid settlement fails.
- Securities lending provides liquidity to bond and equity markets by allowing dealers to borrow securities to meet customer buy orders. It facilitates the government bond repo market by enabling banks and dealers to borrow government bonds from the investment institutions that typically own them; banks then use the bonds to collateralise their own financial obligations, reducing interbank exposures and lowering systemic risk. It enables dealers to hedge derivatives positions linked to securities and indices of securities, so that they can provide liquidity to users of such derivatives, including asset managers, companies and (via structured products) retail investors.
- Beneficial owners who choose not to lend their securities miss out on potential lending revenue, available at low risk given standard market practices such as over-collateralisation, daily mark to market, use of industry-standard legal agreements and the ability to recall lent securities on demand. There is no evidence of a link between securities lending and sustained falls in equity prices. The main consequence of reduced securities lending would be to lower liquidity across securities and derivatives markets to the detriment of all investors.
- ISLA does not object in principle to transparency requirements for short positions and/or securities lending, whether relating to disclosure of large individual positions or in order to produce measures of aggregate short or on-loan interest in a security. But any disclosure regime must provide useful information to market participants without being unduly burdensome to operate, deterring legitimate trading activities or breaching commercial confidentiality.

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About ISLA

The International Securities Lending Association (ISLA) is a trade association established in 1989 to represent the common interests of participants in the securities lending industry. ISLA has more than 100 members comprising insurance companies, pension funds, asset managers, banks and securities dealers representing more than 4,000 clients. Whilst based in London, ISLA represents members from more than twenty countries in Europe, the Middle East, Africa and North America.

Appendix: Short selling and securities lending: a literature review

Debate about short selling has raged for almost as long as financial institutions have existed with commentators blaming short sellers for many of the stock market declines and crashes of the past 400 years; from the East India Company in 1609, South Sea bubbles of the early 18th century, the Great Wall Street Crash of 1929, Black Monday in 1987, the Asian currency crisis of 1997, the bursting of the dot-com bubble in the early-2000s and, most recently, the decline in the share prices of banks and securities firms in 2008.

Critics of short selling typically claim it is responsible for increasing share price volatility, intensifying price drops in declining markets and driving the price of individual stocks down, creating problems of damaged commercial confidence and difficulty in fundraising for the companies involved. Consequently short sellers have gained a reputation that is hard to shake off, being labelled at various times 'stock-bashing rumour mongers' (Albert et al, 1997), the 'assassins of Corporate America' (Business Week, 1996) and, most recently, guilty of 'corporate whoring' (remarks attributed to Sir John Ritblat, Chairman of British Land, June 2008). Such descriptions ignore the empirical evidence found by academics and financial researchers who make the case for allowing short selling in the pursuit of market efficiency.

In their 2002 discussion paper on short selling, the UK Financial Services Authority concluded that short selling is a 'legitimate investment activity which plays an important role in supporting efficient markets...Hence we see no case for prohibiting short selling...and the introduction of specific regulatory constraints would not be warranted'. One of the principal reasons supporting this view is the ability for short sellers to accelerate price corrections in overvalued securities. If unrestricted, short selling can transfer information from informed investors to the less informed allowing market prices to reflect a fairer value of the securities.

Issues identified by regulators

Regulators may be concerned that short selling increases the potential for disorderly markets. Restrictions such as the 'uptick' or 'zero-tick' rule are the most common controls put in place to prevent stock prices being driven down. The uptick rule ensures that short selling only occurs following a trade where the traded price is higher than the preceding traded price for that security. Under a zero-tick rule the price must be the same as the previous transaction price.

A second concern relates to the potential for market abuse: for example, by ‘bear raiders’ who encourage false rumours in order to influence prices. Rather than suggesting that short selling is an abusive activity in itself, regulators may fear that it provides a useful tool for those with the intention to abuse a market. This of course could be said of any other form of trading and so perhaps any cases of abuse should be monitored and investigated under universal market abuse regimes, rather than by restricting short selling.

The risk of settlement disruption is also an important factor for regulators to consider. This occurs when sellers fail to deliver the securities they have shorted. Timely delivery may be especially important for buyers who wish to exercise voting rights or meet commitments in a longer series of transactions. Disciplines may be put in place to ensure timely and orderly settlement, such as prohibiting ‘naked’ short sales. In the United States, for example, short sellers are required to ‘locate’ a stock to borrow before the sale takes place. An alternative is to impose penalties on frequent non-delivery or delayed delivery of securities.

The case against constraining short sales

Most academic research has suggested that constraints on short selling reduce market efficiency and price discovery and, contrary to the intentions of authorities imposing such restrictions, may in fact destabilize markets.

Bai, Chang and Wang (2006) develop a model in which imposing short-sale constraints can cause asset prices to fall. This is similar to the finding by Diamond and Verrecchia (1987). Bai et al (2006) explain that constraining short sales prevents trades by informed traders with access to bearish news about listed companies. As a result, asset prices do not reflect all the information available. This restriction of informational efficiency in the market increases asset price uncertainty in the eyes of uninformed investors, reducing their portfolio allocations to such assets. Consequently, Bai et al (2006) theorize that short-sale constraints lead to lower equilibrium prices.

Other researchers have found the opposite result when analysing empirical data. Using early-20th century U.S. data, Jones and Lamont (2002) argued that stocks that were expensive to short (i.e. short selling was constrained) had high valuations and low subsequent returns. Miller, (1977) first proposed the hypothesis that constrained stocks are typically over-valued by explaining that only the most optimistic investors set the price. Harrison and Kreps (1978)

went further to show that constraints can drive the price even above the valuation of the most optimistic investors due to investors' expectations of future payoffs.

Bai et al (2006), suggest that the degree of information asymmetry across different potential investors in a market may determine whether the net effect of imposing short sale constraints is to increase or lower prices relative to fair value. In developed financial markets, such as those in the United States, the degree of information asymmetry is relatively low. In such cases, short sale constraints may cause prices to rise above their fair value by preventing trades by bearish investors. However, in markets where information asymmetry is higher (and thus the risk perceived by uninformed investors is greater, discouraging them from entering the market), constraints may lead to lower asset prices.

Using empirical data across various countries comparing returns on individual securities that have liquid securities borrowing markets to returns on those that do not, Saffi and Sigurdson (2007) find that price discovery is more efficient in securities that can be borrowed and therefore where short selling is possible. They measure efficiency by the delay with which information is incorporated into prices and the degree of correlation between current stock returns and lagged market returns.

Papers discussing the existence of bubbles by Allen et al (1992), Abreu and Brunnermeier (2002, 2003) and Scheinkman and Xiong (2003), suggest that short sale constraints can be a necessary condition for price bubbles, due to the effect of information asymmetry. Allen and Gale (2000) suggest that bubbles are associated with borrowers shifting risk to lenders in conditions of considerable uncertainty about real asset payoffs and credit expansion; and limitations on short selling make bubbles more likely.

Much research has been conducted into the late 1990s to early 2000 internet stock bubble, with academics asking why investors failed to short overpriced internet stocks and thus bring them back to an equilibrium price. Ofek and Richardson (2003) amongst others, claim this was down to the existence of short sale constraints. For example, they found that internet stocks were relatively expensive to short because of high stock borrowing costs. Abreau and Brunnermeier (2002) propose that bubbles can also arise because of 'synchronization' risk, where rational investors delay acting on any information and are uncertain of when their market peers will correct the mispricing. Battalio and Schultz (2006), however contradict this idea by analysing intraday options data from the peak of the Nasdaq Internet bubble. In this

case their research found no evidence that short sale constraints affected stock prices as investors could alleviate the synchronization risk and high borrowing costs by shorting synthetically using options. However, this result could only be applicable to securities with liquid options markets.

There appears to be consistent support for the view that permitting short-selling does not increase the frequency of price crashes. Indeed, Hong and Stein's (2003) heterogeneous agent model predicts a higher frequency of extreme negative returns when short sale restrictions are binding. Similarly, under Bai et al's (2006) theory, in the presence of information asymmetry, short-sale constraints can increase price volatility as less informed investors sense higher risks and demand larger price adjustments. Empirically, Saffi and Sigurdson find some evidence that short sale constraints increase the skewness of returns by raising the frequency of positive returns but no evidence that the frequency of large negative returns is affected whether short selling is constrained or not. Albert et al (1997), use data on Nasdaq securities between January 1987 and December 1991 when there were no uptick or naked selling restrictions. They concluded that short sellers did not destabilise the market in this case. On the contrary, short-sellers added liquidity by selling into rising markets; shorting stocks that had seen large price increases in the 30 days prior to the establishment of their positions.

Overall, the reduction in market efficiency caused by imposing constraints on short selling has been noted by many regulators around the world. Indeed, 2007 saw a relaxation of short selling constraints across many markets in the Asia-Pacific region and the abandonment of the 'uptick' (Rule 10a-1 of the Securities Exchange Commission 1934 Act) rule in the U.S.

Short Interest as a market indicator

Academics have also studied whether data on short interest (number of shares sold short as a percentage of shares outstanding) provides any information about future price movements.

Diamond and Verrechia (1987) develop a rational expectations model to suggest that increases in short interest reveal negative information on average. They argue that the risks and costs involved with short selling, especially in constrained markets, ensure that short selling will be conducted by informed investors with genuine information that stocks are overvalued. Their behaviour can act as a signal to other less-informed investors. Some

empirical studies have backed this hypothesis. For example, Desai et al (2002) examine the survival of shorted firms in the Nasdaq market between 1988 and 1994. They find that heavily-shorted firms experienced a higher incidence of liquidations and de-listings than a control sample of firms with similar size, book-to-market value and share price momentum.

Asquith and Meulbroek (1996) use data on short interest positions for NYSE and AMEX stocks between 1976 and 1993 to show a strong negative relationship between high short interest and subsequent returns over the following two years. The authors conclude that any legislation to require short sellers to disclose large positions might have the unintended consequence of reducing market efficiency by making short selling more costly and therefore further slowing the adjustment of prices to bad news. Boehmer, Erturk and Sorescu (2007) similarly find that high short interest predicts subsequent negative earnings surprises, suggesting that short sellers tend to be more informed about underlying fundamentals. They conclude that, 'short sellers contribute in important ways to price discovery in financial markets and restrictions on short selling could impose significant indirect costs on other market participants.' However, Asquith, Pathak and Ritter (2004) qualify some of these findings, concluding 'our results indicate that the only class of stocks reliably producing negative abnormal returns is small-cap stocks with extremely high short interest ratios' and that the period of subsequent underperformance is brief.

A second perspective is that high short interest acts as a bullish signal, making price increases more likely. It is thought that short interest represents latent demand, as sellers will eventually have to buy back the stock to cover their position, particularly in the event of positive news. Although the potential for 'short squeezes' is well understood by market participants, they do not feature in the academic literature.

A third point of view is that short interest is a neutral indicator, indicating neither an expected rise nor fall in price. This is true for short selling motivated by hedging, arbitrage and tax-related strategies rather than for speculation motivated by the existence of negative information. Research by Brent et al (1990) and Chen et al (2002) suggests that these other strategies form a major contribution to high short interest and so short interest levels cannot be taken as an outright measure to predict future market price movements. Asquith, Pathak and Ritter (2004) find that high short interest motivated by convertible bond arbitrage is common and is not a reliable indicator of subsequent share price underperformance.

This also highlights the problem of obtaining reliable data on short interest – information based on surveys of investors may be unreliable and data on securities lending transactions identified in settlement systems are an imperfect proxy for short interest as securities loans can be for other purposes eg settlement coverage. Thomas (2006) advocates the need for more conclusive research into the predictive nature of short interest as current data is so mixed. He suggests that the most persuasive evidence so far is provided by Woolridge and Dickinson (1994), who find that short sellers sell as stock prices rise and reduce short positions as they fall. In this way, short sellers act as ‘stabilising liquidity providers’, giving neither bullish nor bearish signals. This view is in agreement with Albert et al (1997) as mentioned previously, who found Nasdaq short-sellers added liquidity by selling into rising markets.

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