Short Selling: A known unknown

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The collapse of Lehman Brothers on 15 September 2008 sent shockwaves across financial markets and precipitated a second, more acute phase of the financial crisis. Fears of systemic meltdown following this event led to uncoordinated regulatory interventions around the world to ban or restrict short selling. The suspicion that 'bear raids' were having a negative impact on stock prices in general and financial stocks in particular motivated these regulatory developments. The ban on short selling reignited a long-standing debate on this controversial technique.

Short selling is a technique that allows one to profit from falling stock prices. In a covered short sale, the trader borrows the stocks from a custodian bank or a broker-dealer for a fee, and sells them to an interested party. Once the price falls, the trader buys the necessary stocks on the market with the money received from the previous sale, pays the borrowing fee, and makes a profit. In a naked short sale, the trader sells the stocks without borrowing them or even without researching whether the stocks are available, exploiting the fact that the trade can be settled up to 2-4 days after the execution (depending on the jurisdiction). During that time, the trader has the time to locate the stocks or buy them in the market and then settle the execution.

Other ways of going short on a stock are to use single stock futures or options, spread bets, contract for difference and total return swaps. However, there is a large difference between short selling (especially naked short selling) and these types of derivative contracts: the risks in short selling are much larger. As shown in Figure 1, the pay-offs of short selling are asymmetrical: profits are limited whereas losses are virtually unlimited. In contrast, purchasing a put option (another common way to profit from falling prices) allows the investor to obtain the right to purchase a stock at the strike price. If the price rises above the strike price, the investor can let the option expire, losing the premium paid but limiting his or her losses. By contrast, in the case of short selling, when the price of the stock increases, virtually unlimited losses can arise as a result. As traders who shorted a stock scramble to buy the shares on the market, they may be caught in a 'short squeeze', exacerbating the price rise.

This is what happened in October 2008, when the stock price of Volkswagen went through the roof. Porsche exercised its undisclosed call options on VW stocks, leaving only a tiny fraction of shares on the open market. Hedge funds that had shorted the stocks were forced to cover their position by buying shares in the market, driving the price above €900.

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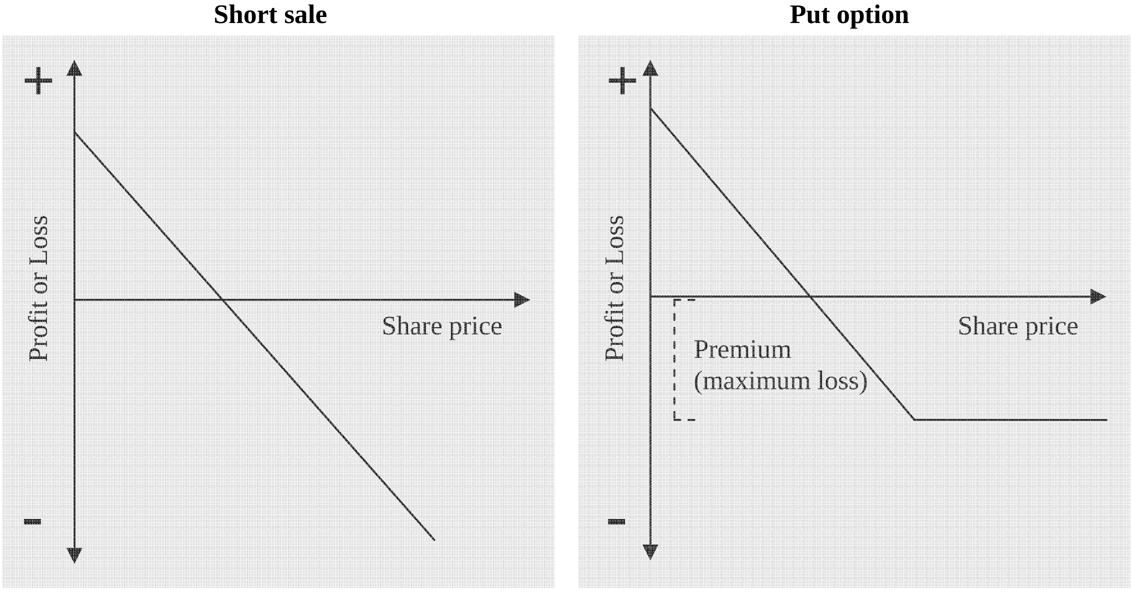
Figure 1. Profit and losses of short selling and purchasing a put option



Short selling poses several questions that are worth investigating. The first issue is of a conceptual nature: Is short selling legitimate and, if so, is it beneficial for financial markets? The second issue is: What is the difference between naked and covered short selling? The third question is legal in nature: Is short selling consistently defined across jurisdictions?

Is short selling legitimate?

Some claim that short selling represents price manipulation *per se*, but that is not how securities regulators in developed economies see it. In effect, short selling in different forms is allowed in almost all jurisdictions. Table 1 lists the main costs and benefits of covered and naked short selling.

Table 1. Costs and benefits of covered and naked short selling

Costs	Benefits
- Possibility of manipulation	- Increased liquidity
- Failures to deliver	- Prevent bubbles
- Depress prices	- Profit from falling prices
- Affect seasoned offerings	- Heightened informational efficiency
- Systemic stability concerns	- Hedging
- Increased volatility (some argue the opposite is true because of decreased liquidity)	- Easier share placements and underwriting

Amongst the main benefits, the possibility to perform short selling without disruption affords greater continuity and liquidity of trading: there always will be a counterparty ready to sell when faced with a buy request. Further, those traders with a negative view of the company can express their position by shorting the stock; collectively, this will prevent the formation of bubbles and contain irrational behaviour, since the bears will not be constrained. The transmission of the negative views will also increase the informational efficiency of markets, and those investors who feel exposed to some stocks can hedge their position by shorting those equity positions.

Amongst the principal costs, short selling can aid price manipulation as short sellers can expand the supply of shares, temporarily depressing prices and profiting from the fall (Chen & Singal, 2003). Moreover, naked short selling can result in failures to deliver, which create 'phantom stocks',[1] diluting ownership rights, destroying shareholder value and threatening market integrity (SEC, 2008). Finally, short selling can be used in a self-fulfilling attack on a large bank's stock price, undermining confidence in its solvency and threatening the financial system as a whole.

Those who are generally confident in the rationality of financial markets and believe in the efficient market hypothesis will argue that the benefits of short selling far outweigh the costs of restricting it (Miller, 1977; Diamond & Verrecchia, 1987). They will assume that financial actors are rational and restricting short sales will prevent those with a negative view of the company from selling its stocks, thereby encouraging bubbles. They will downplay fears of manipulation and underline the benefits of short selling to provide liquidity through market-makers, to aggrandise market depth and continuity, and to allow hedging against falling prices. They will also point to the fact that distinguishing market-making from speculation and hedging is extremely difficult, and therefore no restrictions should be in place.

By contrast, those who are more sceptical of financial markets will emphasise that short selling (especially in its naked form) can artificially depress prices by expanding the supply of a determined stock (Safieddine & Wilhelm, 1996; Finnerty, 2005). They will point to the large numbers of failures to deliver as evidence that short selling is conducive to price manipulation as traders will wittingly sell stocks without settling the trade (Welborn, 2008). They will also stress that short selling can have negative externalities on financial stability (Soros, 2009). Secretly, they will find profiting from falling prices as morally lamentable.

What is the difference between covered and naked short selling?

The answer to this question hinges on the type of clearing and settlement arrangements in place. Clearinghouses that have 'buy-in' and borrowing provisions may settle the trade automatically after a certain time has elapsed and the trade has not been finalised, charging the trader who shorted the stock the price of the shares on the market or a borrowing fee. From an economic standpoint, some will say that these arrangements make covered and naked short selling indistinguishable, the only difference being the actual ownership of the share entitlement at the clearinghouse. Indeed they also may argue that the automatic borrowing provisions increase the competition in the stock lending market, reducing borrowing fees overall.

But others will argue that the phenomenon of 'phantom stocks' is directly related to naked short selling, whereby the trader will strategically fail to deliver in order to depress stock prices. They will also find the notion of selling stocks without ownership rights legally problematic.

Is short selling consistently defined across jurisdiction?

Before the financial crisis, the EU's four largest economies (UK, France, Germany and Italy) had no restrictions on short selling, and the term was not even defined in

[1] Failure to deliver means that a trade is not settled after the normal time allowed has elapsed (2-4 days). A large number of failures to deliver may give rise to 'phantom stocks', i.e. stocks that were sold but were never delivered.

securities regulation. However, the bans initiated by a joint action of the US SEC and the UK FSA in September 2008 led to a significant divergence in the definitions of short selling because of uncoordinated responses with other regulators.

Table 2. Definitions of short selling in September 2008 in the UK, Germany, France and Italy

	Definition of short selling at the moment of implementing the ban
FSA	"a net short position which gives rise to an economic exposure to the issued share capital of a company"
BaFin	"Short positions arise when, at the time of the transaction, the seller of the shares: • does not own such shares, or • at the time of the conclusion of the transaction does not have any absolutely enforceable legal claim under the law of obligations or under property law to be transferred title in shares of the same class [..]"
AMF	"1.The following measures apply to equity securities issued by credit institutions and insurance companies [..] They apply to transactions made on one's own account or on behalf of third parties, including spot, forward and option transactions [..] 2. [..] any investor giving a sell order for one of the securities concerned with instructions for deferred settlement and delivery must hold 100% of the securities to be sold [..]"
CONSOB	"The sale of shares issued by banks and insurance companies listed and traded on the Italian regulated markets shall be supported, form the moment of the order up and until the date of the settlement of the transaction, by the availability by the ordering party of the relevant securities."

Sources: FSA, Bafin, AMF and Consob.

As shown in Table 2, the definitions differed considerably at the moment of implementing the ban. While in the UK, 'economic exposure' seems to suggest that all derivative positions are covered in the definition of short selling; in Germany this does not seem to be the case. In France and Italy, short selling has not been clearly defined, but only the forbidden transactions were described. The CONSOB included the sale of borrowed shares as a banned practice, even though this technique is generally considered as legitimate covered short selling. At the European level, CESR did not intervene and it just issued a call for evidence in December 2008 after some bans had already been lifted. In sum, the definition of short selling is not clearly defined across jurisdictions, especially within Europe.

The 2008 ban on short selling

Was the ban on short selling a good idea and did it achieve its objectives? Some argue that the ban was detrimental in terms of intraday volatility and liquidity of the stocks targeted (Boehmer et al. 2008). Others contend that the ban had a minimal impact on stock returns and prices (Marsh & Niemer, 2008). Some voices assert that the short selling ban made sense in the panicky days following Lehman's collapse, and that it may have averted catastrophe (FSA, 2009). The reality is that we just don't know (Hauvy & Noussair, 2006). Disentangling empirically the effects of short selling (or restrictions thereof) from other macroeconomic variables is difficult, to say the least.

Table 3. Timeline of the bans on short selling

Date	Event
June 2007	SEC repeals up-tick rule
4 March 2008	SEC proposes tougher rules on naked short selling
15 July 2008	SEC bans naked short selling on 19 financial stocks
18 September 2008	FSA bans short selling on 29 leading financial stocks until 16 January 2009
	Ireland suspends short selling of financial stocks
19 September 2008	SEC bans short selling on 799 financial stocks until 16 January 2009
	BaFin bans short selling on 11 financial stocks until 31 December 2008
	Canada's largest regulator (Ontario) bans short selling of financial stocks
21 September 2008	Australia suspends covered short selling on all stocks
	Taiwan and the Netherlands ban short selling
22 September 2008	France bans short selling for at least three months on all stocks
	Belgium bans short selling on financial stocks until 20 March 2009
23 September 2008	Italy bans covered short selling on banks and insurance companies' stocks
1 October 2008	Italy extends ban on all stocks
6 October 2008	China announces introduction of short selling
27 October 2008	Austria bans naked short selling on financial stocks

Only a few elements emerge clearly from this experience. First, greater coordination is vital to ensure that regulatory interventions achieve some effectiveness. The ban on short selling did not make much sense if short derivative positions were left uncovered and regulatory arbitrage was allowed. Moreover, the lack of coordination among European authorities was breathtaking: it is meaningless and dangerous to have a single market with no coordination. Second, there is a lack of consensus on how to handle short selling, even within Europe. Some favour a total ban on naked short selling; others want a disclosure regime in place; some investors think short selling should be allowed in all its forms. Third, restricting short selling is very costly because of the difficulty in defining precisely the banned transactions and the complexity in enforcing such regime. In the end, would regulation of short selling survive a cost/benefit analysis?

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