



AN ACADEMIC VIEW

# The Effectiveness of Short-Selling Bans (GCS)

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## Introduction

As the COVID-19 virus continues to tighten its grip on the world, causing widespread lockdowns and large-scale disruptions to global supply chains, governments, central banks, and regulators have been left with little choice but to intervene in financial markets. Central banks have already pulled out all the stops. The US Federal Reserve slashed interest rates to near zero and injected vast amounts of liquidity into the financial system with “a \$300 billion credit program for employers” and “an open-ended commitment” of quantitative easing, meaning unlimited buy back of treasuries and investment grade corporate debt. Governments have started to pull on the fiscal policy lever as well, approving expansive stimulus packages to bolster faltering economies.<sup>1</sup>

At the same time, regulators have reacted by stiffening regulations to try and protect markets from further price declines. [One such response, which is common during periods of financial turmoil, has been to impose short-selling bans. At the time of writing this, short-selling bans have been implemented in seven countries with potentially more following suit.](#) South Korea banned short selling in three markets, including its benchmark Kospi Index, for six months. As stock markets plunged across Europe in late March, Italy, Spain, France, Greece, and Belgium temporarily halted short selling on hundreds of stocks.<sup>2</sup>

In this editorial, we discuss the impact of short-selling bans on markets and if it will be effective in stemming asset price declines resulting from the economic fallout from COVID-19. To form an objective view, we review empirical findings from past academic studies and look to historical event studies of short-selling bans.

### Key Questions:

#### **Why are short-selling bans implemented?**

Regulators implement short-selling restrictions during periods of market stress in an effort to reduce volatility and prevent further declines in asset prices.

#### **Are short-selling bans effective in stemming price declines?**

When viewed holistically, empirical evidence suggests short-selling bans do not prevent declines in asset prices or reduce volatility but instead degrade market quality.

#### **Should regulators impose short-selling bans in wake of COVID-19?**

In a view formed purely by empirical evidence, short-selling bans in the wake of the fallout caused by COVID-19 may do more harm than good.

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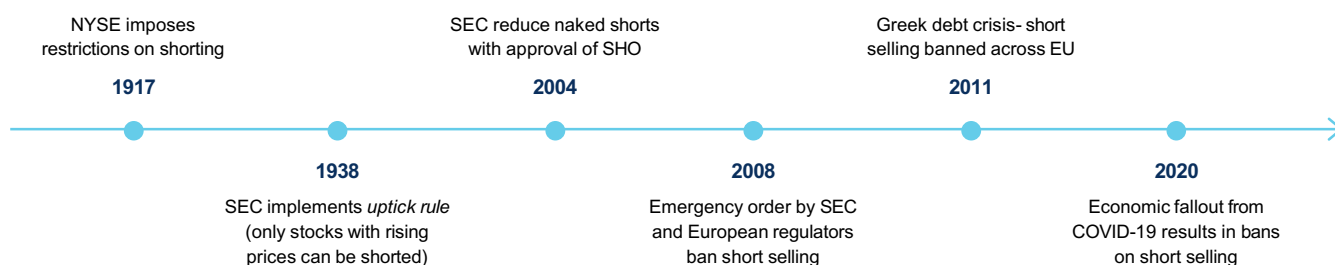
<sup>1</sup> Smialek, J (2020). The Fed Goes All In With Unlimited Bond-Buying Plan. New York Times.

<sup>2</sup> Stafford, P. and Keohane, D. (2020). European countries ban short selling after markets plunge. Financial Times.

## Why are bans on short selling common during market down turns?

This is not the first-time regulators have resorted to bans on short selling during periods of financial distress, as shown in Figure 1. Short selling has historically faced scrutiny, especially during market downturns. At the height of the 2008 financial crisis, the SEC pointed to short selling as a driver behind the sharp decline in financial stock prices saying bans will “protect the integrity and quality of the securities market and strengthen investor confidence”.<sup>3</sup> When the market is under stress, regulators often say that these measures are necessary to reduce market volatility and prevent further declines in asset prices.

Figure 1: Brief History of Short-Selling Regulations



Source: Wahba, P. and Chasan, E (2008). FACTBOX: Milestones in short-selling history. Thomson Reuters.

The controversial nature of short-selling restrictions, the availability of extensive data, and the numerous event studies that demonstrate the impact that temporary bans cause, has long garnered the interest of academics and resulted in a large body of work. These studies provide empirically based evidence and important insights that help us understand the effectiveness of short-selling bans in stabilizing markets.

<sup>3</sup> Baja, V. and Bowley, G. (2008). S.E.C. Temporarily Blocks Short Sales of Financial Stocks. New York Times

## How do we study the impact of short selling and the restrictions there of?

Before diving into academic findings, it is helpful to understand the different types of studies that explore short selling's role in capital markets. Empirical studies tend to fall into three main categories: (1) cross-country variation which leverage differences in regulations and market practices across countries, (2) event studies that analyze various historical events (e.g. short-selling bans in 2008) and, (3) time-series and cross-sectional analyses which uses daily or intra-day stock-loan data to examine the impact of shorting flow. Each research methodology provides a different perspective on the securities lending market and short selling.

## What does empirical evidence suggest about the effectiveness of short-selling bans?

There are several event studies that examine the short-selling bans during the 2008 financial crisis. One of the most extensive studies, Beber and Pagano (2013) analyzed 30 countries during the financial crisis. The study, which was published in the *Journal of Finance*, found no statistical difference in excess returns of stocks for which short sales were banned and those stocks in which short selling was permitted, excluding U.S. stocks (due to the approval of TARP). In their own words, short-selling bans were “[at best neutral in its effects on stock prices](#)”.<sup>4</sup>

A paper published by the Federal Reserve Bank of New York found “[banning short selling does not appear to prevent stock prices from falling](#)”, but instead “lowered market liquidity and increased trading costs”.<sup>5</sup> Additional empirical evidence in a working paper from the European Systemic Risk Board agree with the findings above while also suggesting that stocks targeted by short-selling bans had *increased* volatility and probability of default.<sup>6</sup>

There are several studies that have shown short sellers to be informed market participants – increases in borrowing rates or shorting demand are correlated with abnormal negative returns.<sup>7,8</sup> The evidence from these studies suggest short sellers are informed in that they anticipate fundamental declines in prices and that they are important in efficient prices, which we get into more detail later.

**While there is some empirical evidence that suggest bans are effective, the weight of it is in favor of bans having a limited impact on curbing price declines.**

<sup>4</sup> Beber, A., Pagano, M. (2013). Short-Selling Bans Around the World: Evidence from the 2007–09 Crisis. *Journal of Finance*.

<sup>5</sup> Battalio, R., Mehran, H., and Schultz, P. (2011). Market Declines: Is Banning Short Selling the Solution? Federal Reserve Bank of New York Staff Reports.

<sup>6</sup> Beber, A., Fabbri, D., Pagano, M., Simonelli, S. (2018). Short-selling bans and bank stability. Working paper: European Systemic Risk Board.

<sup>7</sup> Boehmer, E., Jones, C.M. and Zhang, X. (2008), Which Shorts Are Informed? *The Journal of Finance*.

<sup>8</sup> Cohen, L., Diether, K. B., & Malloy, C. J. (2007). Supply and demand shifts in the shorting market. *The Journal of Finance*.

## How do short-selling constraints impact capital markets?

In addition to the weight of empirical evidence suggesting that short-selling bans have limited impact on stemming price declines, existing studies also suggest that these measures have unintended side effects on overall market quality. To help understand what these are, we review the role that short selling plays in capital markets through two primary market functions: [liquidity and price discovery](#).

**Liquidity** is the ease with which an asset can be sold or bought and is commonly proxied for by the bid-ask spread. In illiquid markets bid-ask spreads are wider resulting in costlier trades. Empirical findings from all three types of academic studies mentioned earlier tend to agree that short-selling [constraints](#) reduce liquidity at the single-stock and broader market level.

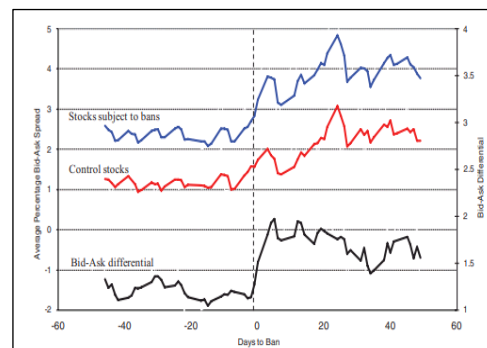
Unintended consequences of short-selling restrictions are costlier trades that are more difficult to **execute**.

Findings from various types of studies:

1. **Cross-county variation:** A study of 111 countries found that in countries where short selling is more feasible, turnover, a proxy for liquidity, was 15% higher. That is, there is increased liquidity of market indices when short selling is possible.<sup>9</sup>
2. **Event studies:** Financial stocks subject to shorting bans during the 2008 financial crisis resulted in spreads that were 200-300% wider when controlling for previous behavior, as shown in figure 2.<sup>10, 11, 12</sup>

**Time-series:** Suggest that short sellers can be liquidity suppliers when spreads are especially wide, providing a stabilizing force in the stock market.<sup>13</sup>

Figure 2: Bid-ask Spread Increases for Stocks with Shorting Ban



Bid-ask spreads increase for stocks with short-selling constraints relative to **comparable** stocks without constraints

Source: Beber and Pagano (2013), Journal of Finance

<sup>9</sup> Daouk and Charoenrook (2009). A Study of Market-Wide Short-Selling Restrictions. Working paper, Cornell University.

<sup>10</sup> Boehmer, E., Jones, C. M. and Zhang, X. (2013). Shackling Short Sellers: The 2008 Shorting Ban. The Review of Financial Studies.

<sup>11</sup> Marsh, I. and Payne, R. (2012). Banning Short Sales and Market Quality: The UK's Experience. Journal of Banking & Finance.

<sup>12</sup> Beber, A., Pagano, M. (2013). Short-Selling Bans Around the World: Evidence from the 2007–09 Crisis. Journal of Finance.

<sup>13</sup> Comerton-Forde, C., Jones, C. M. and Putniņš, T. J. (2016). Shorting at Close Range: A Tale of Two Types. Journal of Financial Economics.

**Price discovery** is a critical process in financial markets in which the proper price of an asset is determined based on the incorporation of all available public information. Empirical evidence from the three categories suggests that short-selling constraints restrict traders with negative information from expressing their sentiment, slowing the speed with which news is incorporated into market prices. Listed below are several findings from various studies:

1. **Cross-county variation:** An analysis of forty-six equity markets reveals that in countries that permit short selling, stock-level prices incorporate information quicker (as measured by the lack of synchronous movement in weekly returns).<sup>14</sup>
2. **Event Studies:** Price discovery was slower for stocks impacted by the short-selling bans during the 2008 financial crisis, especially where negative news was concerned.<sup>15</sup>
3. **Time-series:** Prices of stocks with short-selling *constraints* (such as low lending supply) are less informative. Evidence also suggests increased “shorting flow reduces post-earnings-announcement drift for negative earnings surprises”.<sup>15,16,17</sup>

## Conclusion

During times of financial turmoil, regulators will commonly try to stabilize market prices by implementing short-selling bans and restrictions. Academic findings and empirical evidence suggests that these measures have little to no effectiveness in preventing price declines, instead resulting in a degradation of market quality at a time when it is most crucial. Short-selling bans have been imposed throughout Europe and Asia in response to the economic fallout from COVID-19, but it is unlikely that similar bans will be put in place by US regulators given the limited effectiveness that these measures have. In an interview at the end of 2008, Christopher Cox, the then chairman of the SEC, said [“knowing what we know now, I believe on balance the commission would not do it again”](#) (Christopher Cox, telephone interview to Reuters, 31 December 2008).<sup>1</sup>

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<sup>14</sup> Bris, A., Goetzmann, W. N. and Zhu, N. (2007). Efficiency and the Bear: Short Sales and Markets Around the World. *The Journal of Finance*.

<sup>15</sup> Saffi, P. A. and Sigurdsson, K. (2010). Price Efficiency and Short Selling. *The Review of Financial Studies*.

<sup>16</sup> Reed, A. (2007). Costly Short-selling and Stock Price Adjustment to Earnings Announcements, Working paper, University of North Carolina.

<sup>17</sup> Boehmer, E and Wu, J. (2012). Short Selling and the Price Discovery Process. *Review of Financial Studies*.



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