

MARKET REACTIONS TO CHANGES IN THE REGULATED SHORT-SELLING (RSS) LIST: EVIDENCE FROM BURSA MALAYSIA

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Abstract: *This study examines market reactions to changes in Malaysia's Regulated Short-Selling (RSS) list, with a focus on stock inclusions and exclusions. Analysing market performance around implementation dates, the findings reveal that inclusion in the RSS list leads to notable declines in post-event returns, emphasizing the role of short-selling in price correction. Conversely, exclusions result in muted responses, indicating a limited impact on market behaviour. These results underscore the importance of short-selling in supporting market efficiency and challenge the necessity of overly restrictive regulations. The study provides meaningful insights for policymakers and investors navigating short-selling frameworks in emerging markets.*

Keywords: *Short-selling, Market Reaction, Investor Behaviour, Investment*

Introduction

Short-selling is a fundamental mechanism in financial markets, allowing investors to identify and act on overvalued assets. By allowing the sale of borrowed securities, short-selling acts as a mechanism to align prices more closely with intrinsic values. Despite its recognised benefits, short-selling remains controversial. Critics argue that it can destabilise markets, particularly during periods of economic uncertainty, while proponents emphasise its vital role in promoting efficiency and managing risk (see for e.g. Marsh & Payne, 2012). This debate has prompted regulators worldwide to develop structured frameworks for governing short-selling activities, balancing the need for market functionality with the imperative to maintain stability.

In Malaysia, the regulated short-selling (RSS) framework overseen by Bursa Malaysia exemplifies this balance. The RSS designates eligible stocks based on criteria such as trading volume, market capitalisation, and liquidity, ensuring that only stable and actively traded securities qualify. Changes to the RSS list – whether the inclusion or exclusion of a stock – carry significant implications for market behaviour. Inclusion signals improved liquidity and trading opportunities, attracting both institutional and retail investors. Conversely, exclusion suggests reduced flexibility, potentially affecting a stock's attractiveness and risk profile.

These regulatory adjustments are particularly influential in Malaysia's tightly controlled short-selling environment, where investor sentiment and market dynamics are closely intertwined with regulatory actions. Consequently, the inclusion or exclusion of stocks from the RSS list provides a valuable lens through which to examine the broader relationship between regulation, market efficiency, and investor behaviour in an emerging market context. This dynamic reflects findings from Fan and Gao (2024), who emphasise the role of short-selling in improving informational efficiency and mitigating mispricing, as well as Meng et al. (2020), who examine its effects on financial constraints through mechanisms like the 'negative information effect'. Moreover, Meng et al. (2020) identify that short-selling can exacerbate financial constraints by increasing external financing costs, providing valuable parallels to Malaysia's context.

This study is unique in examining both the inclusion and exclusion of stocks from the RSS list. While several studies, such as Lamba and Ariff (2006), Chang, Cheng, and Yu (2007), and Chang, Luo, and Ren (2014), have investigated the effects of stock inclusion on short-selling eligibility, limited attention has been given to exclusions. By analysing both inclusion and exclusion events, this research offers a more comprehensive understanding of their effects on market behaviour. Comparing the market reactions to these two regulatory changes allows for deeper insights into how short-selling regulations influence investor behaviour and market dynamics.

The theoretical foundations of market reactions to short-selling regulations are grounded in two key perspectives: signalling theory and the investor sentiment hypothesis. Signalling theory suggests that regulatory events, such as the inclusion or exclusion of stocks from the RSS list, act as indicators to the market about a stock's liquidity, stability, or future prospects (Connelly et al., 2011). These signals can influence investor expectations, shaping trading decisions accordingly. Complementing this, the investor sentiment hypothesis posits that market behaviour is often driven by psychological factors, biases, and collective sentiment rather than purely rational calculations (Tripathi & Dixit, 2020). In the context of regulatory changes, investor sentiment may amplify or moderate market reactions depending on prevailing perceptions of risk and opportunity.

Empirical evidence from developed markets aligns with these theoretical perspectives. For example, studies in the United States and Europe, such as those by Jones and Lamont (2002) and Beber and Pagano (2013), demonstrate that short-selling enhances liquidity and improves price discovery, albeit sometimes at the cost of greater price fluctuations during periods of turbulence. In contrast, the impact of short-selling regulations in emerging markets varies significantly, reflecting differences in market structures and investor behaviour. Research in China, for instance, shows that short-selling eligibility boosts liquidity and improves price accuracy (Chang et al., 2014). Fan and Gao (2024) further expand on this by illustrating how short sellers act as contrarian traders during extreme market conditions, reducing mispricing and enhancing informational efficiency. However, in markets such as Japan and South Korea, where short-selling is subject to cultural and regulatory constraints, the outcomes are less consistent. Saffi and Sigurdsson (2011) found that restrictive short-selling environments in these markets tend to stabilise prices but limit efficiency in price adjustments.

Despite these global insights, research on Malaysia's unique regulatory framework remains scarce. As an emerging market with strict short-selling controls, Malaysia presents an opportunity to examine how these regulations influence stock performance. This study addresses this gap by investigating the asymmetric effects of inclusion and exclusion from the RSS list on stock returns. By focusing on implementation dates, the research isolates the causal effects of regulatory enforcement, providing a detailed understanding of how short-selling eligibility shapes investor behaviour and market dynamics. The findings aim to enrich the literature on market microstructure while offering practical implications for policymakers and investors navigating similar regulatory environments.

Literature Review

Short-selling is a significant feature of financial markets, enabling investors to profit from price declines while playing a key role in improving price discovery and market liquidity. However, its regulation has sparked ongoing debates. Supporters argue that short-selling enhances market efficiency by correcting overvalued prices, while critics claim it contributes to excessive volatility, particularly during periods of financial distress (Miller, 1977; Boehmer et al., 2008).

Theoretical Foundations

The debate over short-selling regulation often draws on two contrasting theories. Predatory trading theory, as described by Brunnermeier and Pedersen (2005), suggests that short-selling during bearish markets can amplify selling pressure, driving prices below their fair value. By removing short-sellers, regulators could stabilise markets and avoid excessive price declines. On the other hand, Miller's (1977) overpricing theory argues that banning short-sellers removes a necessary counterbalance to overly optimistic investors. Without the scepticism provided by short-sellers, markets risk inflating prices beyond their fair value, creating bubbles that can ultimately lead to severe corrections (Abreu & Brunnermeier, 2003; Scheinkmann & Xiong, 2003).

These theories extend to liquidity dynamics. Short-selling restrictions typically reduce market supply, widening bid-ask spreads and increasing transaction costs. Diamond and Verrecchia (1987) observed that such constraints impede trading efficiency, while Beber and Pagano (2013) documented the detrimental effects of short-selling bans during the 2008 financial crisis, including reduced liquidity and impaired price discovery. Fan and Gao (2024) and Meng et al. (2020) contribute to this discussion by demonstrating how short-sellers play a stabilising role

during market downturns, often acting as liquidity providers when prices deviate from fundamental values.

Global Evidence on Short-Selling Regulation

Empirical studies in developed markets show the dual effects of short-selling regulations. For instance, Jones and Lamont (2002) found that short-selling eligibility in the United States increased liquidity and price accuracy, although it also brought higher volatility during market stress. Similarly, Boehmer et al. (2008) observed that short-selling supports efficient price adjustments but can exacerbate price swings during periods of instability.

In more restrictive markets like Japan and South Korea, short-selling regulations have had a stabilising effect on prices but often at the cost of reduced-price efficiency (Saffi & Sigurdsson, 2011). Studies from emerging markets provide further contrasts. Research from China, where short-selling was introduced gradually, reveals that eligible stocks benefit from increased liquidity and more accurate pricing (Chang et al., 2014). Meng et al. (2020) further note that in emerging markets dominated by individual investors, short-sellers' contrarian trading behaviours play a critical role in mitigating the effects of investor sentiment on price volatility. Fan and Gao (2024) similarly highlight the role of short-sellers in improving price accuracy and fostering stability during periods of heightened market volatility. These studies illustrate how the effects of short-selling depend on the broader market structure and regulatory environment.

The Malaysian Context

Malaysia presents a unique case for studying short-selling regulations due to its regulated short-selling (RSS) framework, which balances market freedom with strict investor protections. Bursa Malaysia updates its RSS list periodically, selecting stocks based on criteria such as liquidity, trading volume, and market capitalisation. Inclusion on the list signals enhanced trading opportunities and liquidity, while exclusion implies reduced flexibility and can alter investor perceptions of risk.

Despite the extensive global research on short-selling, there is limited understanding of how Malaysia's specific framework affects market behaviour. This study addresses that gap by investigating the market reactions to stocks included in or excluded from the RSS list. By examining the causal effects of regulatory enforcement, this research provides valuable insights into the role of short-selling in an emerging market setting, contributing to the broader literature on market regulation and efficiency.

Methodology

This study examines the impact of revisions to short-selling eligibility on stock returns. These revisions, based on Bursa Malaysia's "Directive on the List of Approved Securities," detail the stocks authorised for regulated short selling in the market. Initially published on 22 December 2006, the list has since been updated semi-annually to indicate which stocks have been newly included or excluded from the short-selling programme. Each update specifies the effective date when newly added stocks become eligible for short selling and when excluded stocks lose their eligibility. Announcements typically occur on Fridays, with the implementation date set for the following Friday, resulting in an average time gap of approximately eight calendar days between the two dates.

The sample consists of 656 stocks newly approved for short-selling (Inclusions) and 445 stocks newly restricted from short-selling (Exclusions), all drawn from Bursa Malaysia's directives.

The study period spans from December 2006 until December 2019, covering 28 events. The analysis centres on the implementation date rather than the announcement date, as short-selling activity can only commence once the regulations take effect, typically five trading days later. This distinction is crucial: the market's actual response, in terms of price behaviour and investor activity, is expected to manifest more strongly once short-selling is allowed or restricted. By focusing on the implementation date, the analysis captures the regulatory change's actual impact, avoiding speculative market reactions to the announcement itself. This approach is consistent with existing literature, which suggests that stock price adjustments are more significant when short-selling regulations are enforced (Beber & Pagano, 2013).

This study employs paired sample t-tests to compare stock returns before and after the implementation date, identified as the event day (Day 0). This method is appropriate for determining whether revisions to short-selling eligibility result in statistically significant changes in stock prices. Pre-event returns are calculated based on the trading days leading up to the implementation, while post-event returns capture price movements from Day 0 onwards. The analysis examines various windows within a one-month period surrounding the event, covering 20 trading days before and after Day 0.

Particular emphasis is placed on narrower event windows, such as [-3, +3] and [-5, +5], as prior research (Beber & Pagano, 2013) suggests that short-selling events tend to elicit more immediate market responses. Additionally, longer windows, such as [-10, +10] and [-20, +20], are considered to assess whether the market adjusts to regulatory changes over an extended period. Shorter windows are more suitable for capturing reactions to microstructure changes, while longer horizons may reflect broader fundamental factors rather than short-term regulatory shifts.

Daily stock price data were sourced from Datastream, covering the period from November 2006 to December 2019. Daily returns for each stock are calculated as the percentage change in closing prices, using the natural logarithm of price changes. The study hypothesises that stocks included in the short-selling list (Inclusions) would provoke negative market reactions, incentivising short positions, whereas stocks removed from the list (Exclusions) would generate positive reactions, encouraging long positions. Therefore, post-event returns are expected to be lower for Inclusions and higher for Exclusions compared to the returns in the pre-event period.

Findings and Discussion

Table 1 presents the results of a paired sample t-test, comparing average stock returns before and after stocks are either included or excluded from short-selling eligibility. Panel A: Inclusions reports the results for stocks newly approved for short-selling, while Panel B: Exclusions examines those recently restricted. Panel C: Reaction Strength evaluates the comparative market responses to these two events.

The findings demonstrate a clear asymmetry in market responses to inclusions and exclusions, with stronger reactions observed for stocks newly included in the short-selling list. For Inclusions, pre-event returns were consistently positive across all event windows, with the highest daily return of 0.0964% observed in the [-5, -1] window. Post-event returns, however, exhibited a sharp decline, particularly within the [-3, +3] window, where returns fell by 0.2806%. These differences were statistically significant at the 1% level for most windows, except for the broader [-10, +10] range. The pronounced response in the narrower windows suggests that investors rapidly adjust to the newly available short-selling opportunities, driving

immediate price corrections. Broader event windows reveal a weaker response, suggesting that the magnitude of return differences diminishes over time as the market has properly adjusted to this new information. This aligns with existing literature, such as the findings of Beber and Pagano (2013), which document intense market reactions to the initiation of short-selling regulations., followed by a tapering effect as the market stabilises. Moreover, this reflects observations by Fan and Gao (2024), who highlight the role of short sellers in accelerating price adjustments, fostering informational efficiency, and mitigating mispricing in markets. Meng et al. (2020) complement this by showing how short-selling pressures improve managerial discipline and foster behavioural adjustments, particularly in emerging market contexts. This dynamic supports the narrative that inclusions provide mechanisms for effective price discovery.

Table 1: Market Reactions to RSS List Revisions

Panel A: Inclusions (n = 656)						
Pre-event		Post-event		Difference	t-statistics	p-value
Windows	Returns	Windows	Returns			
[-20, -1]	0.0595%	[0, +20]	-0.0384%	-0.0979%	-3.9567	0.0001***
[-10, -1]	0.0124%	[0, +10]	-0.0008%	-0.0132%	-0.3845	0.7008
[-5, -1]	0.0964%	[0, +5]	-0.1345%	-0.2309%	-4.9496	0.0000***
[-3, -1]	0.0600%	[0, +3]	-0.2206%	-0.2806%	-4.7842	0.0000***

Panel B: Exclusions (n = 445)						
Pre-event		Post-event		Difference	t-statistics	p-value
Windows	Returns	Windows	Returns			
[-20, -1]	0.0002%	[0, +20]	-0.1190%	-0.1192%	-3.6358	0.0003***
[-10, -1]	-0.0582%	[0, +10]	-0.0585%	-0.0002%	-0.0050	0.9960
[-5, -1]	-0.0715%	[0, +5]	-0.0347%	0.0367%	0.5897	0.5557
[-3, -1]	-0.1162%	[0, +3]	-0.1596%	-0.0434%	-0.5803	0.5620

Panel C: Reaction Strength				
Windows	Diff. Inc.	Diff. Exc.	 Diff. Inc. - Diff. Exc. 	Winner
[-20, -1] vs. [0, +20]	-0.0979%	-0.1192%	-0.0213%	Exclusion
[-10, -1] vs. [0, +10]	-0.0132%	-0.0002%	0.0130%	Inclusion
[-5, -1] vs. [0, +5]	-0.2309%	0.0367%	0.1941%	Inclusion
[-3, -1] vs. [0, +3]	-0.2806%	-0.0434%	0.2371%	Inclusion

Notes: The return values represent average daily returns for each specified event window, calculated as $\ln(P_t/P_{t-1})$. *** indicates statistical significance at the 1% level.

In contrast, the market response to Exclusions was considerably weaker. Pre-event returns were generally negative, with only the [-20, -1] window displaying a marginally positive return of 0.0002%. Post-event returns remained negative across all windows, with minimal differences between pre- and post-event periods. The lack of statistical significance in most windows suggests that the market perceives short-selling restrictions as less impactful, possibly because traders have already adjusted their positions or because exclusions are viewed as less disruptive to stock valuations. This subdued reaction mirrors Fan and Gao's (2024) findings in the Chinese market, where regulatory restrictions on short selling elicited muted effects, especially in environments dominated by individual investors. Meng et al. (2020) add another perspective by identifying that exclusions may reduce external financing costs for firms by mitigating the "negative information effect," offering a plausible explanation for the limited reaction strength

observed here. These observations align with Saffi and Sigurdsson's (2011) conclusion that the market reacts more strongly to the introduction of short-selling opportunities than to their removal.

A direct comparison of the reaction strength between Inclusions and Exclusions further underscores this asymmetry. For instance, in the [-3, +3] window, the reaction to inclusions was 0.2371% greater than that to exclusions. While the [-20, +20] window showed a slight advantage for exclusions, this difference was negligible, at only 0.0213%. These results reaffirm earlier observations that the market reacts more significantly to short-selling Inclusions than to Exclusions, highlighting the strategic importance of short-selling opportunities. Fan and Gao's (2024) characterisation of short sellers as contrarian traders supports this narrative, underscoring their role in fostering stability and mitigating the risks of irrational behaviour in market responses. The pronounced reactions to Inclusions likely reflect investors' tendency to quickly exploit newly available opportunities, while Exclusions provoke a more muted response due to their perceived limited impact on trading strategies.

Conclusion

This study demonstrates the asymmetric effects of regulatory changes to short-selling eligibility on Bursa Malaysia, with significantly stronger market reactions observed for newly included stocks compared to those excluded. The sharp decline in post-event returns for inclusions highlights the market's dependence on short-selling as a vital mechanism for price correction and risk management. Conversely, the muted response to exclusions suggests that restricting short-selling opportunities imposes minimal constraints on investor behaviour and trading strategies. These insights align with findings from Fan and Gao (2024), who document how short-selling mechanisms enhance informational efficiency and mitigate the adverse effects of mispricing. Meng et al. (2020) further corroborate this by highlighting how regulatory shifts can influence both firm-level behaviour and market-level outcomes, enriching the literature on short-selling's implications.

By focusing on implementation dates rather than announcement dates, this study effectively captures the causal impact of regulatory enforcement, avoiding distortions caused by speculative behaviour. The stronger reaction to inclusions underscores the value investors place on short-selling opportunities, while the limited response to exclusions highlights the resilience of markets to restrictions. These results raise questions about whether restrictive short-selling regulations are necessary, as they appear to have little impact on market stability or investor behaviour. Fan and Gao's (2024) findings further suggest that short selling's role in accelerating price discovery and stabilising markets may outweigh concerns about its potential risks. Meng et al.'s (2020) findings regarding the "negative information effect" and its interaction with managerial discipline add another layer of insight, emphasising the importance of understanding firm-specific dynamics within regulatory contexts.

This research advances the understanding of market microstructure by demonstrating the critical role of short-selling in efficient market functioning. Regulatory frameworks should carefully weigh the benefits of short-selling in promoting liquidity and price efficiency against the perceived risks associated with the practice. Future studies should incorporate firm-specific variables, such as liquidity, size, and volatility, to further elucidate the factors driving market behaviour following short-selling events.

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