



From Theory to Trading Floors: Revisiting Share Repurchase Execution in Literature

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Abstract

Share repurchase programs have become a central instrument of modern corporate financial policy. Despite their growing economic significance, academic research has largely concentrated on explaining why firms repurchase shares rather than how these programs are executed in real market environments. This imbalance is important because execution decisions—such as the choice of mechanism, timing, trading intensity, and interaction with intermediaries and market microstructure—directly influence the realized costs, price impact, and informational consequences of buyback transactions.

This paper provides a comprehensive review of the emerging literature that focuses specifically on share repurchase execution. The analysis integrates theoretical perspectives on timing and execution style with quantitative optimal-execution models and empirical evidence on price dynamics surrounding repurchase activity. Particular attention is given to the two dominant mechanisms used in practice: open-market repurchases (OMRs) and accelerated share repurchase (ASR) contracts. In addition, the review incorporates behavioural and governance perspectives, including the role of managerial overconfidence, institutional monitoring, and board oversight in shaping execution decisions.

The findings reveal that although sophisticated modelling approaches—such as stochastic control, partial differential equations, and more recently machine-learning techniques—have advanced the theoretical understanding of repurchase execution, empirical validation remains limited. Only a small number of studies explicitly examine execution dynamics, and most have appeared relatively recently, often within a narrow circle of contributors. Building on these observations, the paper identifies key gaps in the literature and proposes a research agenda focused on dynamic execution strategies, improved performance metrics, integration of behavioural factors, and the responsible use of artificial intelligence in trading decisions.

By repositioning execution as a central component of repurchase analysis, this study seeks to bridge the gap between theoretical explanations of corporate payout policy and the practical realities of financial market trading.

Keywords: Share repurchases; Buybacks; Execution strategies; Open-market repurchases; Accelerated share repurchases; Market microstructure; Algorithmic trading; Artificial intelligence; Behavioural finance; Corporate governance

1. Introduction

Share repurchases have emerged as one of the most prominent mechanisms through which corporations distribute cash to shareholders. In many developed markets, buybacks now rival or exceed dividends as a method of returning capital, reflecting firms' desire for flexibility in capital management and financial signaling. Repurchases allow firms to adjust payout levels in response to market conditions, manage capital structure, and influence earnings per share without committing to permanent dividend increases.

Consequently, the academic literature has devoted considerable attention to understanding the motivations behind repurchase programs. Classical explanations include signaling undervaluation, mitigating agency problems related to free cash flow, achieving tax efficiency, and exploiting perceived market mispricing (Grullon & Michaely, 2004; Jagannathan, Stephens, & Weisbach, 2000). Empirical research has therefore largely focused on announcement effects, determinants of repurchase activity, and comparisons between dividends and buybacks.

In contrast, the **execution phase** of repurchase programs—how firms actually purchase shares in financial markets—has received significantly less attention. Once a repurchase authorization is announced, managers must determine the speed, timing, and method of execution while navigating market liquidity, regulatory constraints, and trading technologies. These decisions are particularly important in modern markets characterized by high-frequency trading, fragmented exchanges, and algorithmic order-routing systems.

Two principal execution modalities dominate repurchase practice. The first is **open-market repurchases (OMRs)**, in which firms gradually purchase shares on stock exchanges over an extended period. OMRs provide considerable flexibility but are typically subject to regulatory constraints, such as safe-harbour provisions limiting daily trading volumes and prices (Cook, Krigman, & Leach, 2004). The second modality is **accelerated share repurchase (ASR) contracts**, where firms engage investment banks to deliver a large block of shares immediately while the intermediary subsequently acquires shares in the market to hedge its exposure (Guéant, Jiang, & Royer, 2015). These mechanisms differ substantially in terms of transparency, risk allocation, and price impact.

Given these practical complexities, a deeper understanding of execution dynamics is essential. Execution strategies determine transaction costs, influence price formation, and shape how investors interpret repurchase signals. Nevertheless, the literature addressing these issues remains fragmented and relatively small.

The purpose of this paper is therefore to provide a structured synthesis of the emerging research on share repurchase execution. The study reviews theoretical perspectives on execution timing and style, examines quantitative models of optimal execution, discusses behavioural and governance influences on trading decisions, and identifies major gaps in the literature. By integrating insights from corporate finance, market microstructure, and behavioural economics, the paper aims to contribute to a more comprehensive understanding of buyback implementation in modern financial markets.

2. Research Methodology

This study adopts a **qualitative literature review approach** to examine the existing academic work on share repurchase execution and to identify key theoretical developments and research gaps in this domain. The objective of the review is to synthesize insights from prior studies across the fields of **corporate finance, market microstructure, and behavioural finance** in order to develop a comprehensive understanding of repurchase execution strategies.

2.1. Literature Search Strategy

Relevant academic literature was collected from major scholarly databases including **Google Scholar, Scopus-indexed journals, and Web of Science repositories**. The search process used combinations of keywords such as *share repurchases, stock buybacks, repurchase execution, optimal execution, market microstructure, liquidity impact, and corporate payout policies*. These keywords were selected to capture both the **corporate finance perspective of buybacks** and the **trading execution dimension** explored in market microstructure studies.

2.2. Selection Criteria

To ensure relevance and academic quality, the review focused primarily on **peer-reviewed journal articles, working papers, and recognized financial research publications**. Studies were selected based on the following criteria:

- Direct relevance to **share repurchase mechanisms or execution strategies**
- Contribution to **market microstructure or trading strategy literature**
- Empirical or theoretical analysis related to **corporate payout decisions**
- Publication in **reputable finance or economics journals**

Priority was given to **recent studies published during the last two decades**, while also incorporating **foundational works** that established the theoretical basis for share repurchase research.

2.3. Analytical Approach

The selected studies were analysed using a **thematic synthesis approach**. The literature was grouped into major thematic categories including:

- motivations and determinants of share repurchases
- execution strategies and trading mechanisms
- market microstructure implications
- behavioural and governance perspectives

This thematic organization enabled the identification of **key research trends, methodological approaches, and unresolved questions** in the literature.

2.4. Scope and Limitations

While the review attempts to provide a comprehensive overview of the available literature, it is limited by the **availability of publicly accessible studies on execution-level buyback data**, as many execution strategies rely on proprietary trading information. Nevertheless, the analysis provides a structured synthesis of the existing body of knowledge and highlights important directions for future research.

3. Theoretical Perspectives on Share Repurchase Execution

3.1 Institutional Setting and Execution Decisions

Execution decisions determine how firms implement repurchase programs after authorization. Managers must decide **when trades should occur, how quickly shares should be acquired, and which execution mechanisms should be used**. These decisions depend on several factors, including available liquidity, expected volatility, regulatory requirements, and the firm's strategic objectives.

In many markets, firms are required to disclose only aggregated repurchase information rather than detailed transaction-level data. As a result, external observers often have limited insight into the actual execution strategies employed. This lack of transparency makes it difficult to assess execution quality and evaluate whether repurchases are implemented efficiently.

Repurchases also interact closely with **market liquidity**, defined as the ability to trade large volumes rapidly and with minimal price impact (Holden, Jacobsen, & Subrahmanyam, 2014). On repurchase trading days, the presence of the issuing firm can enhance liquidity by absorbing order imbalances and narrowing bid–ask spreads. However, over longer horizons, repurchases may reduce liquidity by decreasing the free float and concentrating ownership among fewer investors.

Institutional and behavioural considerations further shape execution choices. Managerial beliefs about stock valuation influence trading aggressiveness, while governance structures and institutional investors may impose discipline on execution policies (Shu, Yeh, Chiang, & Hung, 2013; Cheng & Lin, 2012). These factors highlight the importance of examining repurchase execution within a broader framework that incorporates behavioural and governance dynamics alongside market microstructure considerations.

3.2 Timing Decisions

Timing represents a fundamental dimension of repurchase execution. According to **market-timing theory**, managers initiate and execute repurchases when they perceive their firm's shares to be undervalued relative to intrinsic value (Brealey, Myers, & Allen, 2012). Under this view, firms concentrate repurchases during periods of depressed market prices or negative sentiment, thereby creating value for continuing shareholders. Signaling theory offers a complementary explanation. Repurchases can convey managerial confidence about firm value, particularly when execution is persistent and substantial (Bhattacharya, 1979; Vermaelen, 1981). The credibility of this signal depends not only on the announcement of a repurchase program but also on the extent to which the program is actually implemented (Grullon & Michaely, 2004).

Agency theory highlights another dimension of timing decisions. By distributing excess cash through repurchases, firms can mitigate free-cash-flow problems and reduce the potential for inefficient investment (Jensen, 1986). However, poorly governed firms may also use repurchases opportunistically to influence short-term stock prices or managerial compensation outcomes (Easterbrook, 1984).

In recent years, quantitative models have introduced a more formal approach to timing decisions. Optimal-execution frameworks based on the seminal work of Almgren and Chriss (2000) conceptualize repurchase trading as a dynamic optimization problem that balances execution costs against price risk. Extensions of these models incorporate stochastic liquidity and volatility, generating optimal trading schedules that adapt to changing market conditions (Guéant et al., 2015; Jaimungal, Kinzebulatov, & Rubisov, 2017).

3.3 Execution Style

Execution style refers to the **pattern and intensity of trading activity** used to implement repurchase programs. Firms may distribute purchases evenly over time, concentrate trades during specific periods, or execute large block transactions through intermediaries.

The trade-off perspective suggests that rapid execution can quickly achieve repurchase objectives but may generate significant price impact. Conversely, gradual trading reduces visible market footprints but increases exposure to market risk (Almgren & Chriss, 2000; Cook et al., 2004).

Execution style also carries informational implications. Sustained open-market repurchases may reinforce the perception that managers believe the firm is undervalued, whereas large accelerated transactions may signal strategic capital restructuring or opportunistic timing (Vermaelen, 1981; Grullon & Michaely, 2004).

Behavioural and governance factors further influence these decisions. Overconfident managers may prefer aggressive execution styles that front-load repurchases, while strong governance structures may encourage more measured trading strategies aligned with long-term shareholder value (Shu et al., 2013; Wu, 2012).

4. Quantitative Models and Execution Mechanics

4.1 Optimal-Execution Models

Optimal-execution models conceptualize repurchase trading as a problem of minimizing expected transaction costs while controlling execution risk. The influential framework developed by Almgren and Chriss (2000) distinguishes between **temporary price impact**, arising from liquidity consumption, and **permanent impact**, reflecting long-term changes in equilibrium prices.

Subsequent research has extended this framework to capture more complex trading environments. Guéant et al. (2015) incorporate stochastic liquidity and volatility, leading to stochastic-control problems that require numerical solution methods. Jaimungal et al. (2017) apply similar techniques to accelerated share repurchase contracts, modelling the intermediary's joint problem of hedging option-like exposures and executing trades in the underlying stock.

Recent advances in machine learning have introduced new possibilities for modelling execution strategies. Neural-network methods can approximate optimal policies in high-dimensional environments without explicitly solving dynamic programming problems (Guéant, Manziuk, & Pu, 2020). However, these approaches raise concerns regarding transparency, interpretability, and regulatory acceptance.

4.2 Price Impact and Market Dynamics

Price impact is a critical determinant of execution costs and market quality. Empirical evidence suggests that repurchase trades can generate short-term price pressure due to temporary liquidity imbalances (McNally, Smith, & Barnes, 2006). These effects often reverse once markets absorb the informational content associated with repurchase activity.

The theoretical framework proposed by Kyle (1985) distinguishes between temporary and permanent price impact. Temporary impact reflects order-book dynamics and liquidity constraints, whereas permanent impact represents lasting changes in market valuation.

Execution modality also influences these dynamics. Accelerated share repurchases typically generate stronger immediate price reactions due to concentrated trading activity, whereas gradual open-market repurchases tend to produce more moderate but persistent price effects (Cook et al., 2004; Guéant et al., 2015).

5. Behavioural and Governance Influences

5.1 Managerial Behaviour

Behavioural finance research highlights the importance of managerial beliefs and biases in shaping corporate financial decisions. Overconfident managers may overestimate the accuracy of their private information and therefore perceive their firm's stock as undervalued more frequently than warranted (Shu et al., 2013).

Such biases can influence execution decisions by encouraging aggressive trading schedules, reluctance to revise repurchase programs, or preference for high-impact execution mechanisms. Recognizing these behavioural influences is essential for interpreting deviations from theoretically optimal trading strategies.

5.2 Corporate Governance and Institutional Monitoring

Corporate governance mechanisms play a crucial role in moderating managerial behaviour and ensuring that repurchase programs align with shareholder interests. Effective board oversight, transparent disclosure practices, and active institutional investors can improve the credibility and discipline of buyback execution (Jensen, 1986; Wu, 2012).

Institutional investors in particular act as sophisticated monitors who evaluate the strategic rationale behind repurchase programs and influence market reactions to buyback announcements (Cheng & Lin, 2012). Regulatory frameworks also shape execution practices by imposing limits on repurchase activity and requiring periodic disclosure of buyback transactions.

6. Literature Gap

Despite the substantial economic importance of share repurchases, relatively few academic studies focus explicitly on their execution mechanisms. Recent reviews suggest that only a small number of papers examine execution in detail, and most of these have been published within the past decade (Osterrieder & Seigne, 2023a).

This imbalance leaves several important issues insufficiently explored. First, limited empirical evidence exists on how firms design dynamic repurchase schedules under real-world trading constraints. Second, relatively few studies evaluate execution performance using comprehensive metrics that capture transaction costs, price impact, and opportunity costs. Third, the interaction between behavioural factors, governance structures, and algorithmic trading technologies remains largely unexplored.

Methodological challenges also contribute to this gap. Optimal-execution models often become computationally complex when extended to realistic market environments with multiple risk factors (Osterrieder, 2023). At the same time, empirical analysis requires high-frequency trading data that are typically proprietary and difficult to obtain (Guéant et al., 2020).

7. Future Research Directions

Future research should focus on developing **adaptive repurchase strategies** that respond dynamically to market conditions such as volatility, liquidity, and order-flow imbalance. Empirical comparisons of alternative trading schedules could provide valuable guidance for practitioners.

Another important direction is the development of **standardized execution-quality metrics** tailored to buyback programs. Such metrics would allow more consistent evaluation of repurchase performance across firms and markets.

Researchers should also examine the interaction between **algorithmic trading systems and managerial behaviour**, particularly the extent to which algorithmic tools can mitigate behavioural biases. Finally, policy-oriented studies could assess how enhanced disclosure requirements might improve transparency and market integrity in repurchase programs.

8. Conclusion

Although share repurchases have been extensively studied within corporate finance, the execution phase of buyback programs remains relatively underexplored. Execution decisions influence transaction costs, price dynamics, and the informational effects of repurchase announcements, making them central to understanding the real economic consequences of buybacks.

Advances in optimal-execution modelling and machine-learning techniques have provided powerful analytical tools for studying these processes. However, empirical validation and integration with behavioural and governance perspectives remain limited.

By repositioning execution as a core component of repurchase analysis, future research can bridge the gap between theoretical explanations of corporate payout policy and the practical realities of financial market trading. A deeper understanding of execution strategies will benefit corporate managers, investors, and policymakers seeking to design more efficient and transparent repurchase programs.

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