Corporate Liquidity Provision &

Share Repurchase Programs

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On December 15, 2021, the U.S. Securities and Exchange Commission ("Commission") proposed amendments to its rules regarding the disclosure of share repurchase programs or, as they are colloquially known, stock buybacks. The amendments contained in the Share Repurchase Disclosure Modernization proposal rulemaking (hereafter referred to as the "Proposal") would require more frequent and detailed disclosures regarding issuers purchasing of their own stock.

Under the current rules, issuers are required to periodically disclose aggregated information about share purchases on a quarterly basis in Form 10-O and annually in Form 10-K. This information includes the monthly number of shares purchased; the average price paid per share; the total number of shares purchased as part of a publicly announced share repurchase program; the number of shares that may still be purchased under share repurchase programs; and several related footnote disclosures describing, for example, the principal terms of publicly announced share repurchase programs. The current rules also require footnote disclosure of the principal terms of all publicly announced share repurchase programs, the number of shares purchased other than through a publicly announced program, and the nature of the transaction.

The Proposal would principally require nextday reporting of the number and average price of shares repurchased on new Form SR.¹ Additional requirements include a description of the share repurchase program's rationale, the criteria used to determine how many shares the company purchased, policies related to the trading of corporate insiders, and whether insiders traded in the 10-day period preceding the repurchase of shares.

We were commissioned by the United States Chamber of Commerce to assess the soundness of the economic analysis ("EA") that accompanies the Proposal. As we demonstrate below, the EA contains numerous flaws. Most notably, the EA does not articulate a market failure that justifies the need for potential rulemaking; instead, it makes several observations about anticipated benefits but does not explicitly discuss whether the Proposal solves an actual problem. Rather, the EA primarily relies on simple economic reasoning to qualitatively assess potential benefits, such as greater transparency, regardless of whether an actual problem that warrants rulemaking exists. The EA also makes numerous conjectures about opportunistic behavior by issuers and insiders that are primarily supported by a flawed empirical analysis conducted by former SEC Commissioner Robert Jackson.

The Proposal describes two primary economic considerations for potential rulemaking: (1) the opportunistic use of share repurchases by management and (2) asymmetric information between insiders and external stakeholders. We begin by examining the economic baseline of the EA, which is the de facto alternative regulatory approach. The baseline is an essential part of the EA as it represents a reference point

^{1.} The proposed Form SR would require the following disclosure: (1) date of the repurchase; (2) identification of the class of securities purchased; (3) the total number of shares (or units) purchased, including all issuer repurchases regardless of whether they were made pursuant to publicly announced programs. It also requires the following additional disclosures: (1) the average price paid per share (or unit); (2) the aggregate total number of shares (or units) purchased on the open market; (3) the aggregate total number of shares (or units) purchased in reliance on the safe harbor in Exchange Act Rule 10b-18; and (4) the aggregate total number of shares (or units) purchased pursuant to a plan intended to satisfy the affirmative defense conditions of Exchange Act Rule 10b5-1(c). See https://www.sec.gov/rules/proposed/2021/34-93783-fact-sheet.pdf.

when comparing alternative rulemaking actions.² We characterize how well the EA documents the existence of a market failure. We then identify instances where the EA fails to quantify aspects of the baseline as well as the incremental costs or benefits of Proposal, even though, in some cases, opportunities for quantification exist.

As part of our analysis, we review the relevant academic literature and assess whether the evidence supports the Commission's interpretation of these studies. We note instances where the EA incorrectly or incompletely cites empirical studies. Although some of these deficiencies can be corrected, we conclude that, on net, the EA reflects an incomplete assessment of the academic literature that appears to be designed to frame the economic effects

in a manner that supports the Proposal rather than to objectively assess it.

Our overarching conclusion is that the EA fails to convincingly identify the existence of a market failure. As such, the Proposal lacks merit and could lead to unanticipated consequences that are detrimental to the interests of issuers and investors.

We structure our addendum as follows. Section I discusses possible opportunistic use of repurchases by issuers/insiders. Section II examines information asymmetries between investors and issuers/insiders around repurchases. Section III offers a brief conclusion. Appendix A tabulates the topical content of 80 studies cited in the Proposal. Appendix B tabulates 22 relevant studies that the EA does not reference.

I. Opportunistic Share Repurchases

The first potential market failure—the opportunistic use of repurchases—is based on a conjecture that managers might use repurchases to manage earnings, inflate stock prices, or hit earnings per share ("EPS") targets to boost the realized value of their compensation. The clearest explanation of this market failure occurs in the Proposal's introduction:³

"Some of these commentators view issuer share repurchases as a tool to raise the price of an issuer's stock in a way that allows insiders and senior

executives to extract value from the issuer instead of using the funds to invest in the issuer and its employees."

As we discuss below, claims of opportunistic or manipulative use of share repurchases by insiders are not supported by economic analysis. As the above quote illustrates, the EA ignores empirical evidence refuting the notion that repurchases necessarily harm investment and employees, choosing instead to reference opinions offered by commentators.

^{2.} Prior academic work argues that the baseline sets a benchmark for estimating the costs and benefits of the proposed rule because policy choices will vary based on how the current landscape and market failure is framed. See White, J. T. (2015). The evolving role of economic analysis in SEC rulemaking. *Ga. L. Rev.*, 50, 293-325.

^{3.} We note that certain economic effects are discussed in the Proposal's introduction but are missing from the EA. Because the EA fails to explicitly articulate a clear market failure, the reader is forced to interpret the discussion in the introduction as the Commission's description of the market failure.

A. Insider Selling Around Repurchases

The Proposal's introduction characterizes the evidence that indirectly motivates the possibility that managers opportunistically use buybacks to increase their realized compensation. Throughout the Proposal, the Commission relies heavily on a June 2018 speech by then SEC Commissioner Robert Jackson Jr. ("Jackson Speech"). During this speech, Commissioner Jackson introduces new data analysis (the "Jackson Dataset") that reputedly shows how executives use repurchases to "cash out" by selling their shares after the buyback announcement.

Commissioner Jackson and his staff analyzed 385 issuers that announced repurchases from January 2017 through March 2018. They conclude that "after the company tells the market that the stock is cheap, executives overwhelmingly decide to sell." As a confirmation of this activity, Commissioner Jackson presents the graph in Figure 1; it shows that the average total transaction value of insider shares sold increases by more than fivefold just after a repurchase is announced.

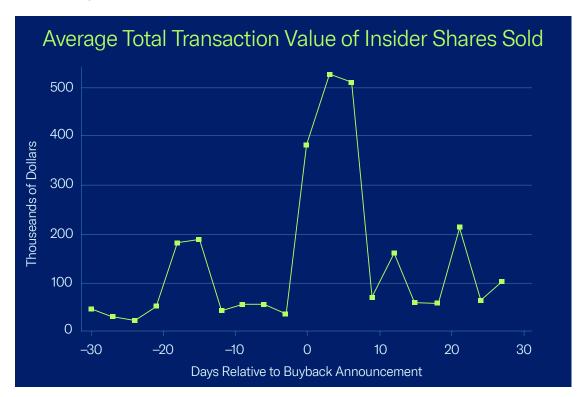


Figure 1. This figure presents the average total transaction value of insider shares sold around repurchase announcements. It is excerpted directly from then Commissioner Jackson's Speech and is reported as Figure A.3. in the data appendix to this speech.

^{4.} See the speech by Commissioner Jackson Before the Center for American Progress: Jackson, Jr., R. J., (2018, June 11). Stock buybacks and corporate cashouts, https://www.sec.gov/news/speech/speech-jackson-061118 ("Jackson Speech"). The data appendix is found at https://www.sec.gov/files/speech-jackson-061118-data-appendix.pdf. The dataset underlying the speech is available at https://www.sec.gov/files/combined-datasets.csv.

Commissioner Jackson interprets this graph as follows:

"On average, in the days before a buyback announcement, executives trade in relatively small amounts—less than \$100,000 worth. But during the eight days following a buyback announcement, executives on average sell more than \$500,000 worth of stock each day—a fivefold increase. Thus, executives personally capture the benefit of the short-term stock-price pop created by the buyback announcement."

We download and analyze the Jackson Dataset. Figure 1 above plots the three-day moving average of the total transaction value of insider shares sold in the 61-calendarday event window ([-30, +30]) that centers on the buyback announcement. Because a moving average smooths transaction activity, it tends to overstate the influence of outliers by making trading activity look more persistent than it actually is. To demonstrate this point, we plot the daily average for the Jackson Dataset in Figure 2.

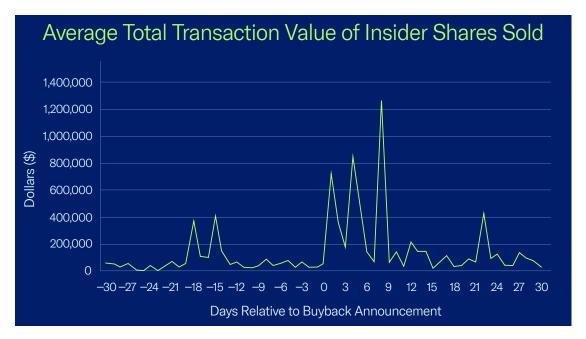


Figure 2. This figure reports average daily transaction value of insider shares sold using the Jackson Dataset.

The overall pattern in Figure 2 is similar to that of Figure 1; however, because our graph is not smoothed, it exhibits large oscillations—which raises the possibility that increases in post-buyback transaction activity could be driven by a small number of large insider sales rather than widespread insider trading around buyback announcements.

Indeed, in Table 1 below, we report that the average and median total transaction values of insider shares sold are \$147,753 and \$0 over the 61-day event window, respectively. The large size of the sample standard deviation (\$3,975,982) relative to the average indicates that the Jackson Dataset exhibits significant right-skewness. For example, the 99th percentile is \$2,062,200, while the maximum value is \$382,737,472.

Table 1 also shows that we obtain similar results if we expand our analysis to a 121-day event window ([-60, +60]).

Event Window	Mean	Standard Deviation	P1	P25	P50	P75	P90	P99	Maximum
[-30, +30]	147,753	3,975,982	0	0	0	0	0	2,062,200	382,737,472
[-60, +60]	182,136	5,625,048	0	0	0	0	0	1,623,672	530,900,000

Table 1. This table presents the distribution statistics of the total transaction value (\$) of insider shares sold using the Jackson Dataset.

Using the Jackson Dataset of 385 stock buybacks, 16,275 possible transaction days occurred during the [-30, +30] event window and 31,021 possible transaction days during the [-60, +60] event window. If we exclude observations that exceed the 99.9th percentile (i.e., all daily total transaction

values of insider shares sold that exceed \$21,264,840), we remove 11 observations: 3 observations from the [-30, -1] window and 8 from the [+1, +30] window. We then plot the average total transaction value of insider shares sold using the remaining 16,264 observations below in Figure 3.

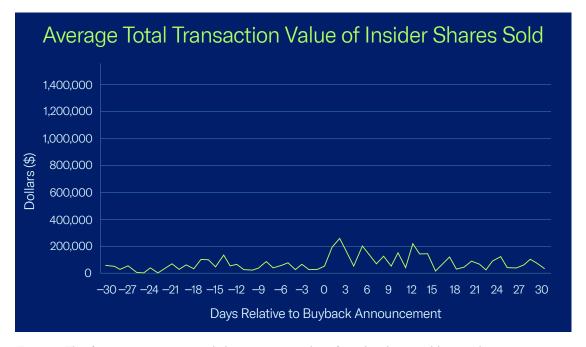


Figure 3. This figure reports average daily transaction value of insider shares sold using the Jackson Dataset after removing all observations that exceed the 99.9th percentile.

Figure 3 tells a different story than the one presented in the Jackson Speech.

Specifically, Figure 3 illustrates how removal of a few outliers eliminates the large spikes in transaction activity observed in

Figures 1 and 2. The difference relative to the prior figures is visually striking. Thus, Commissioner Jackson's conclusion that "executives personally capture the benefit of the short-term stock-price pop created by the buyback announcement"—
is based on an analysis that significantly
overestimates the extent of insider selling.
We attribute this overestimation to bias
created by a small number of outlier
observations in the former Commissioner's
sample. We conclude that one of the key
analyses underlying the Proposal does
not present robust evidence that insiders
opportunistically sell, or "cash out," their
shares after a buyback announcement.

Rather than attributing the increase in post-buyback announcement trading to opportunistic behavior, we posit that the uptick in insider sales is mechanically driven by issuer blackout periods, during which both insider sales and repurchases are prohibited ahead of key information releases. Despite the economic relevance of this alternative explanation, the EA briefly relegates the discussion of blackout periods to two footnotes. Footnote 58 of the EA references the 2020 SEC Staff Study:

"There are a number of reasons why insider sales may coincide with repurchase program announcements, making it difficult to ascertain the motivations underlying insider sales. For example, because repurchase program announcements often coincide with earnings announcements and companies often prohibit insiders from trading in the period leading up to earnings announcements, insider sales activity may be the result of pent-up demand."

Footnote 81 of the EA notes that:

"In the case of repurchase announcements, where such announcements coincide with earnings announcements, because issuers generally prohibit insiders from trading in the period leading up to earnings announcements as part of blackout periods, insider sales activity after the repurchase announcement may be the result of pent-up liquidity demand."

As the Commission considers a re-proposal or adopting a final release, the EA should cite a study by Dittmann, Li, Obernberger, and Zheng (2022) that became publicly available shortly after the Proposal.⁵ In this study, the authors examine whether insiders use share repurchases to sell equity at inflated stock prices. They find that the timing of both buyback programs and insider sales is largely determined by trading prohibitions attributable to blackout periods and earnings announcement dates times when both repurchases and insider sales are restricted. Thus, any positive correlation between share repurchases and insider selling is likely driven by blackout periods rather than opportunistic insider trading around repurchases.

After controlling for the "corporate calendar," Dittmann et al. (2022) present empirical evidence that the positive correlation between share repurchases and equity-based compensation disappears, and conclude that:⁶

^{5.} See Dittmann, I., Li, A. Y., Obernberger, S., & Zheng, J. (2022, January 21). The impact of the corporate calendar on the timing of share repurchases and equity grants, available at https://ssrn.com/abstract=4004098.

^{6.} Dittmann et al. (2022) control for the corporate calendar using fiscal-month fixed effects and the monthly share of blackout days.

"[W]e do not find systematic evidence of price manipulation when the CEO's equity vests or when the CEO sells her vested equity."

Dittmann et al. (2022) also show that a CEO is more likely to buy rather than sell stock when a new share repurchase program is announced. They summarize their findings as follows:

"Overall, these results suggest that the CEO tends to believe that the stock is undervalued when she initiates a buyback program. There is no evidence for the notion that the CEO uses buyback announcements to create short-term private benefits."

B. Repurchases to Achieve EPS-Linked Bonuses

The Proposal claims that insiders opportunistically use share repurchase programs to inflate the reported EPS by reducing the shares outstanding in the denominator. Unfortunately, the EA provides no independent quantification demonstrating the rate or magnitude of EPS-driven repurchase activity—something that should be included when characterizing the economic baseline. Instead, the EA only notes:

"Share price- or EPS-tied compensation arrangements can thus incentivize executives to undertake repurchases, in an attempt to maximize their compensation, even if such repurchases are not optimal from the shareholder value maximization perspective."

The associated discussion of this topic is largely relegated to Footnotes 78, 79, and 80, where the Commission cites numerous studies without assessing their implications. In fact, the EA does not provide an objective assessment of whether insiders use repurchases to inflate EPS to earn greater realized compensation. Although not discussed in the Proposal, the clearest evaluation can be found in the Commission's 2020 Staff Study, which concludes:

"[M]ost of the money spent on repurchases over the past two years was at companies that either do not link managerial compensation to EPS-based performance targets or whose boards considered the impact of repurchases when determining whether EPS-based performance targets were met or in setting the targets, suggesting that other rationales motivated the repurchases."

Further, some of the studies cited in the EA reflect an incomplete framing of the empirical evidence. For example, the EA cites a blog post that summarizes a study by Fields (2016) that interviews 44 directors serving on 95 boards. The Fields (2016) study notes that:⁷

"[M]ost directors said that their companies are aware of the relationship between buyback programs and compensation and that they make deliberate, informed choices to ensure that they reward executives for desired behavior rather than for financial manipulation of share prices."

^{7.} See the comprehensive study: Field, R. (2016, August). "Buybacks and the board: Director perspectives on the share repurchase revolution," Investor Responsibility Research Center Institute (IRRC) Institute/Tapestry Network, https://www.tapestrynetworks.com/sites/default/files/publication_pdf/IRRCl%20-%20Buybacks%20 and%20the%20Board%20-%20August%202016.pdf. The blog post is available at https://corpgov.law.harvard.edu/2016/09/20/buybacks-and-the-board-director-perspectives-on-the-share-repurchase-revolution/.

In other words, share repurchase programs do not "outsmart" the careful design of executive compensation plans. Although not mentioned in the EA, Fields (2016) describes a reasonable alternative to the proposed increase in repurchase disclosure frequency:

"Few companies publicly disclose details about buyback decision-making and very few state which of the four reasons are driving any particular buyback program. Although a number of directors mentioned that their companies project how buyback activity will affect EPS and adjust targets accordingly, only 20 S&P 500 companies disclosed that they did so. Most companies and boards with robust buyback processes do not currently disclose enough to receive credit for their work."

Another alternative to the Proposal would be to require in the Compensation Discussion and Analysis section of the proxy statement to disclose whether the issuer's EPS-based executive compensation plan accounts for projected or actual repurchase activity. This type of disclosure would specifically target issuers that utilize EPS bonuses and could be accomplished with relatively low-cost rulemaking or the issuance of interpretive guidance. Unfortunately, the staff of the Commission fails to consider the deterrent value of requiring issuers to describe how compensation committees adjust EPS-based bonuses for repurchases.

The baseline of the EA does not quantify the percentage of issuers' annual and long-term incentive plans that is tied to EPS and how it correlates with buybacks. The Commission already subscribes or could easily subscribe to academic databases, such as the Incentive Lab by Institutional Shareholder Services, which provide detailed data on executive compensation for members of the Standard and Poor's ("S&P") 1500, including EPS-based performance awards.

The EA also fails to quantify (1) how many issuers used share repurchases to trigger an executive bonus that would not have been earned without repurchasing shares and (2) the total executive compensation awarded from potentially opportunistic buybacks. Similar concerns were expressed in the context of the relation between share repurchases and executive pay for issuers listed in the United Kingdom ("UK"). In response, PricewaterhouseCoopers ("PwC") published a 152-page analysis under the advisory of Professor Alex Edmans in 2019 and presented these results to the UK government.8 The PwC study found no significant relation between share repurchases and either the existence of an EPS bonus or the proportion of executive incentive awards linked to EPS.

In fact, the PwC report found no evidence of a single repurchase that triggered an EPS-based bonus. Specifically, the PwC study conducted a threshold analysis to compare issuers' EPS performance had they not repurchased shares to their EPS with the repurchase. During the period 2007 to 2017, the analysis found that:

^{8.} See PwC. (2019, July). Share repurchases, executive pay and investment, Report to Department for Business, Energy & Industrial Strategy, BEIS Research Paper 2019/011, https://www.pwc.co.uk/services/economics/insights/share-repurchases-executive-pay-and-investment.html.

"No firms in the sample would have been below the EPS target had they not repurchased shares and above the EPS target with the share repurchase. In other words, no firm successfully used share repurchases to beat its EPS target."

The Commission should replicate the threshold analysis of the PwC study for SEC reporting issuers and provide a full quantification of the fraction and transaction value of repurchases that successfully resulted in meeting an EPS target to achieve an executive bonus.

The PwC report also points out that even if EPS compensation targets incentivize insiders to repurchase shares, this outcome could be consistent with shareholder value maximization. For example, when an issuer chooses to return surplus cash to shareholders rather than spending this cash on inefficient investment or expenditures, the EPS target has encouraged efficient investment in repurchases, which is consistent with shareholder value maximization. Such behavior will destroy shareholder value only if an issuer engages in repurchases when it does not have surplus cash and does so by cutting investments in research and development

("R&D") or other value-enhancing investments. As we discuss below in Section I.C. of this addendum, the EA fails to cite numerous studies showing that repurchases do not sacrifice issuer investment.

The EA also omits several important studies that provide empirical evidence that fails to support the notion of using repurchases to boost executive compensation through EPS bonuses. For example, Bargeron, Kulchania, and Thomas (2011) find no evidence of a correlation between EPS-based bonuses and the types of repurchase programs that rapidly boost EPS.10 Bennett, Bettis, Gopalan, and Milbourn (2017) examine issuers that just meet EPS compensation targets and find no evidence that share repurchases are the mechanism that facilitates this outcome.11 Similarly, Bens, Nagar, Skinner, and Wong (2003) present evidence that repurchases are used to offset dilution from employee stock options rather than achieve an EPS-based cash bonus.12

Importantly, even if some repurchases are used to hit EPS targets, investors appear to "see through" this behavior under the existing quarterly repurchase disclosure regime. For example, two studies that are cited in the Proposal—Hribar, Jenkins, and Johnson (2006) and Kurt (2018)¹³—

9. By underlining key points, this excerpt replicates the emphasis of the PwC report.

^{10.} See Bargeron, L., Kulchania, M., & Thomas, S. (2011). Accelerated share repurchases. *Journal of Financial Economics*, 101(1), 69-89. This study argues that if EPS bonus incentives were large, insiders would prefer an accelerated stock repurchase ("ASR") program over an open market repurchase program because the accretion to EPS would be accounted for immediately; however, regression evidence in their study reveals no statistical relation between ASR programs and EPS-based bonuses. We note that the Commission's 2020 Staff Study references this study, but it is omitted from the EA.

^{11.} See Bennett, B., Bettis, J. C., Gopalan, R., & Milbourn, T. (2017). Compensation goals and firm performance. *Journal of Financial Economics*, 124(2), 307-330. This study provides causal evidence on the relation between EPS bonuses and buybacks by examining issuers that just meet EPS compensation targets to those that just miss. The authors show that firms that just meet EPS compensation targets have lower R&D and abnormal accruals, which indicates that some issuers reduce investment or adjust reported earnings to hit a compensation target. Importantly, there is no significant difference in share repurchases for these samples. These findings imply that, while some issuers might take opportunistic actions to hit performance targets, there is no evidence that share repurchases are a mechanism that facilitates those actions.

^{12.} See Bens, D. A., Nagar, V., Skinner, D. J., & Wong, M. F. (2003). Employee stock options, EPS dilution, and stock repurchases. *Journal of Accounting and Economics*, 36(1-3), 51-90. This study reports a correlation between EPS and repurchase decisions; however, the authors find that EPS-driven cash compensation effects are not the underlying source of this relation. Instead, their evidence shows that some issuers use repurchases in an attempt to offset dilution from employee stock options in order to sustain prior growth rates in reported EPS.

^{13.} See Hribar, P., Jenkins, N. T., & Johnson, W. B. (2006). Stock repurchases as an earnings management device. *Journal of Accounting and Economics*, 41(1-2), 3-27; and Kurt, A. C. (2018). Managing EPS and signaling undervaluation as a motivation for repurchases: The case of accelerated share repurchases. *Review of Accounting and Finance*, 17(4), 453-481.

show that the market considers whether repurchases could help the issuer hit an EPS target. In other words, under the current quarterly reporting regime, investors are not fooled by repurchases that might be used as an earnings management device.

Overall, the empirical evidence largely supports the conclusions of the SEC's 2020 Staff Study, which states the following:

"Collectively, these findings potentially suggest that most repurchase activity does not represent an effort to artificially inflate stock prices or influence the value of option-based or EPS-linked compensation."

C. Repurchases and Investment

The Proposal's introduction (but not the EA) notes that some commentators view repurchases as harmful because they divert cash to shareholders that could have been used to fund investment or increase employee compensation. We note that these comments are made by (1) Senator Elizabeth Warren and (2) William Lazonick in a 2015 essay that assesses a statement by then presidential candidate Hillary Clinton.¹⁴

Academics, including those referenced prominently in the Proposal such as Professor Jesse Fried, have questioned this notion. In a series of academic studies, essays, and blog posts, Professor Fried and

Professor Charles C.Y. Wang argue that this "accepted wisdom" is "flat out wrong." 15

Moreover, peer-reviewed academic research by Fried and Wang (2019) refute the superficial arguments in the Lazonick essays that share repurchases harm issuers and its employees. Unfortunately, none of these discussions are in the EA.

In Lazonick (2015), the author self-cites a prior 2014 *Harvard Business Review* article titled "Profits Without Prosperity," which argues that repurchases erode employee income gains, reduce employment levels, and limit issuers' investment in long-term projects. Lazonick's thesis is based on estimates that issuers in the S&P 500 index used 54% of earnings for repurchases and 37% of earnings for dividends over 2003 to 2012. Lazonick (2014) argues that this leaves only 9% of earnings to invest in future growth or employees.

Despite citing the Fried testimony three times, the Proposal fails to mention research by this author demonstrating that repurchases do not sacrifice investment nor do they harm employees. For example, Fried and Wang (2018, 2019, 2021) present empirical evidence that issuers recover approximately 80% of the cash used for dividends and buybacks by engaging in new equity capital formation.¹⁷ Thus, the net cash returned to shareholders is less than half the amount claimed by buyback critics such as Lazonick.

^{14.} See Lazonick, W. (2015, August 11). Clinton's proposals on stock buybacks don't go far enough. *Harvard Business Review*. We note that the link to the Lazonick essay in the Proposal is incorrectly cited as https://hbr.org/2015/08/clintons-proposals-on-stock-buybacks-dont-go-far-enough. The correct link is available at https://hbr.org/2015/08/clintons-proposals-on-stock-buybacks-dont-go-far-enough.

^{15.} See Fried, J., & Wang, C.C.Y. (2019, March 13). Democratic senators and the buyback boogeyman. Harvard Law School Forum on Corporate Governance, https://corpgov.law.harvard.edu/2019/03/13/democratic-senators-and-the-buyback-boogeyman/.

^{16.} See Lazonick, W. (2014, September). Profits without prosperity. *Harvard Business Review*, 46-55, https://hbr.org/2014/09/profits-with-out-prosperity.

^{17.} See Fried, J. M., & Wang, C. C. (2018, March-April). Are buybacks really shortchanging investment? Harvard Business Review, 88-95, https://hbr.org/2018/03/are-buybacks-really-shortchanging-investment; Fried, J. M., & Wang, C. C. (2019). Short-termism and capital flows. Review of Corporate Finance Studies, 8(1), 207-233; and Fried, J. M., & Wang, C. C. (2021). Short-termism, shareholder payouts and investment in the EU. European Financial Management, 27(3), 389-413.

Fried and Wang also note that estimating the payout ratio as a percentage of net income—as in Lazonick (2014)—fails to recognize the basic, fundamental accounting principle that net income already deducts R&D expenditures, which they estimate accounts for 25% to 30% of net income. Fried and Wang (2018, 2019, 2021) highlight flaws in viewing stock buybacks and investments as substitutes. The authors' evidence indicates that issuers can make all of the investment in capital expenditures and R&D that managers deem necessary—while still being able to repurchase shares from *surplus* cash. Thus, buybacks do not shortchange investments in the company and its employees.

The EA also misses an opportunity to discuss other literature on this topic. For example, Asness, Hazelkorn, and Richardson (2018) present empirical evidence that repurchases do not mechanically grow earnings or reduce investment.¹⁸

Edmans (2017, 2020) also argues that issuers do not systematically misuse cash for repurchases. He contends that such claims put the "cart before the horse" since issuers first allocate cash to investment based on projects that generate a return higher than the issuers' cost of capital.¹⁹ Only surplus cash is used for repurchases, which is consistent with survey evidence in Brav, Graham, Harvey, and Michaely (2005) that issuers fund repurchases with residual cash flow after funding investment. Although the EA cites the 2005 Brav et al. study four times, it fails to point out that this survey provides

evidence that pushes back on the notion that repurchases sacrifice investment.

In one of the few discussions of the relation between repurchase and investment or employees, Footnote 80 of the EA points to a study by Almeida, Fos, and Kronlund (2016):

"EPS-motivated repurchases are associated with reductions in employment and investment, and a decrease in cash holdings" and concluding that "managers are willing to trade off investments and employment for stock repurchases that allow them to meet analyst EPS forecasts."

Yet, a more thorough assessment of this study would uncover their statement that "[i]t is clear that EPS-induced repurchases are on average not detrimental to shareholder value or subsequent performance."

The EA also fails to recognize the findings of the Commission's own 2020 Staff Study, which clearly notes in its conclusion that "most repurchases are conducted by companies with excess cash relative to investment opportunities."

Moreover, although the Proposal cites Congressional testimony by Professor Jesse Fried numerous times, it fails to consider other testimony provided during the same subhearing. For example, Professor Craig Lewis opines that:²⁰

"Opponents of share buyback programs typically argue that they: 1) artificially inflate share price, 2)

^{18.} See Asness, C., Hazelkorn, T., & Richardson, S. (2018). Buyback derangement syndrome. Journal of Portfolio Management, 44(5), 50-57.

^{19.} See Edmans, A. (2017, September 15). The case for stock buybacks. *Harvard Business Review*; and Edmans, A. (2020). *Grow the pie: How great companies deliver both purpose and profit*. Cambridge University Press.

^{20.} See Lewis, C. M. (2019, October 17). Examining corporate priorities: The impact of stock buybacks on workers, communities, and investment, Testimony of Craig M. Lewis before the U.S. House of Representatives Subcommittee on Investor Protection, Entrepreneurship, and Capital Markets, https://financialservices.house.gov/uploadedfiles/hhrg-116-ba16-wstate-lewisc-20191017.pdf.

crowd out investment, 3) result from managerial short-termism, and 4) disproportionately benefit the wealthy and corporate insiders. I argue that these conjectures are either not supported by empirical analysis or are based on misconceptions about the how share repurchase programs actually operate."

Professor Lewis provides empirical evidence demonstrating the repurchases are an efficient method for distributing surplus cash.²¹

Overall, the EA fails to deliver robust discussion of the economic implications of buybacks for corporate investment.

D. Repurchases to Manipulate Markets

In the Proposal, the Commission notes that:

"With respect to share repurchase announcements, some have suggested that managers may take advantage of positive stock price reactions to non-binding repurchase announcements and use disingenuous repurchase announcements to manipulate share prices."

As evidence of these allegations of market manipulation, the Proposal cites a study by Chen, Ikenberry, Wang, and Lee (2010), who note that some issuers misled investors by announcing share repurchases that the issuer did not execute. This study examines a sample

period that predates the Commission's 2003 requirement that issuers report aggregated monthly repurchase activity on a quarterly basis (Item 703).²² Such actions could be considered "cheap talk," where issuers might announce a buyback authorization that they do not intend to execute in hopes that it will lead to short-term stock price appreciation. However, the 2010 Chen et al. paper clearly states:

"Moreover, as we subdivide the evidence further, we also conclude that the total number of buybacks where managers may have been intending to mislead investors, while nonzero, also appears to be limited."

This finding does not represent a systematic market failure that requires the formal alteration of disclosure obligations.

Moreover, the study is incapable of determining if there was an intent to deceive investors or whether changing business conditions now favor the execution of a repurchase program. At a minimum, the EA should replicate the approach in this study—a duration of 21 years—to determine if these limited instances of misleading investors continue to occur after the 2003 changes in repurchase disclosure frequency.

In fact, claims that repurchases are conducted to manipulate stock prices are inconsistent with the conclusions of the 2020 SEC Staff Study (p. 45), which states that:

^{21.} See Lewis, C. M. (2019). The economics of share repurchase programs. Report commissioned by the Association of Mature American Citizens, https://amac.us/wp-content/uploads/2019/02/The-Economics-of-Share-Repurchase-Programs1.pdf.

^{22.} See Chan, K., Ikenberry, D. L., Lee, I., & Wang, Y. (2010). Share repurchases as a potential tool to mislead investors. Journal of Corporate Finance, 16(2), 137-158; and Purchases of Certain Equity Securities by the Issuer and Others, Release No. 33-8335 (Nov. 10, 2003) [68 FR 64952 (Nov. 17, 2003)].

"[R]epurchase announcements are accompanied by stock price increases. This announcement effect does not dissipate over time, as one would expect if repurchases were based on efforts to manipulate share prices."

Given the scarce evidence that share repurchase announcements are used to mislead markets—and that the Commission's own staff found no cross-sectional evidence of manipulative buyback activity—the EA fails to demonstrate a market failure that warrants the proposed rulemaking.²³

II. Impact of More Frequent Disclosure on Information Asymmetry

The Proposal describes how asymmetric information might be reduced by increasing buyback disclosure frequency but does not explain why the current level of transparency would be considered a market failure. The Proposal notes:

"[A] lack of timely disclosure could contribute to information asymmetries between investors and issuers/insiders."

The Proposal then conjectures that a lack of timely disclosure could lead to the market failure of asymmetric information between investors and issuers or insiders. The only substantive discussion of information asymmetry occurs in the introduction and is, once again, missing from the EA:

"In particular, we are concerned that, because issuers are repurchasing their own securities, asymmetries may exist between issuers and affiliated purchasers and investors with regard to information about the issuer and its

future prospects. This, in turn, could exacerbate some of the potential harms associated with issuer repurchases. To help address these information asymmetries, we are proposing a new disclosure form and additional disclosure requirements about issuer repurchases."

The EA fails to note that asymmetric information is present in all market settings and can hardly be characterized as a market failure. Without some level of asymmetric information, there would be fewer incentives to invest in information collection, resulting in less price discovery and a corresponding reduction in liquidity (see, e.g., Grossman and Stiglitz, 1980).²⁴

The EA argues that more frequent disclosure of repurchase activity might reduce information asymmetries between investors and issuers/insiders, which could result in greater stock price liquidity and a lower cost of equity capital. The EA posits:

^{23.} Although the EA does not present widespread empirical evidence of market manipulation through repurchase cheap talk, it notes in Footnote 79 that even the highest concerns of manipulation do not prevent the positive effect of repurchases on price efficiency. See Busch, P., & Obernberger, S. (2017). Actual share repurchases, price efficiency, and the information content of stock prices. *Review of Financial Studies*, 30(1), 324-362.

^{24.} See Grossman, S. J., & Stiglitz, J. E. (1980). On the impossibility of informationally efficient markets. *American Economic Review*, 70(3), 393-408.

"We expect the proposed amendments to have positive effects on efficiency and capital formation. In particular, any decrease in the information asymmetry between issuers and investors about the value of an issuer's securities as a result of the disclosure could lead to more informationally efficient prices, and more efficient capital allocation in investor portfolios. Decreased information asymmetries between investors and issuers as a result of the enhanced disclosure under the proposed amendments could also incrementally facilitate capital formation and reduce the cost of capital. It is difficult to determine the incremental contribution of the proposed amendments and thus the magnitude of this potential benefit."

Although some degree of information asymmetry will always exist between issuers and investors, the EA does not demonstrate that more frequent repurchase disclosures will have a large enough effect on capital costs or liquidity to outweigh any direct or indirect costs of additional disclosure burdens. For asymmetric information to be considered a market failure, the Commission would need to robustly demonstrate that insiders act in their own self-interest to produce an outcome that is economically harmful to other stakeholders. The lack of such evidence likely explains the use of qualifying language (e.g., "could lead to") in the EA's description of potential benefits.

Within the EA, the Commission cites three studies linking decreases in information asymmetry to lower capital costs (Easley and O'Hara, 2004;²⁶ Botosan, 2006; and Lambert, Leuz, and Verrecchia, 2007). These studies are largely cross-sectional analyses that make general inferences about reductions in asymmetric information. While informative, these studies are not dispositive in the sense that they do not specifically discuss share repurchase activity. The question that the EA needs to address is whether similar effects are associated with more frequent and timely repurchase disclosures.

To this end, the EA claims it is too difficult to quantify the incremental benefits of potential reductions in asymmetric information stemming from the proposed amendments. As such, it fails to present quantitative evidence to support the conjecture that the net effect would reduce issuers' cost of capital. There are, however, analyses the Commission could have conducted to address the necessity of more frequent disclosure of share repurchase activity. For example, the Commission could examine how investors react to more frequent repurchase disclosure across or within jurisdictions outside the United States. The staff could quantify the marginal impact of repurchase disclosure on liquidity or capital costs. Many academic studies use market and trading-based measures of liquidity—such as Amihud's Illiquidity—to empirically measure the impact of incremental issuer disclosures on liquidity.²⁷ In fact, the studies cited in

^{25.} At the margin, regulatory mandated transparency reduces incentives to engage in price discovery and could have the unintended consequence of reduced liquidity. Following Grossman and Stiglitz (1980), markets would indeed be more efficient with respect to information related to share repurchases but could have the countervailing effect of being less efficient with respect to other information that might have been discovered had investors been willing to invest in independent research. Without quantification, it is difficult to assess which consideration dominates.

^{26.} The paper by Easley and O'Hara is incorrectly cited in the Proposal as being published in 2005. It was published in the August 2004 issue of the *Journal of Finance*.

^{27.} See, for example, Balakrishnan, K., Billings, M. B., Kelly, B., & Ljungqvist, A. (2014). Shaping liquidity: On the causal effects of voluntary disclosure. *Journal of Finance*, 69(5), 2237-2278. In this study, the authors link voluntary management earnings forecasts to decreases in Amihud's trading-based measure of illiquidity. For a discussion on this measure, see Amihud, Y. (2002). Illiquidity and stock returns: Cross-section and time-series effects. *Journal of Financial Markets*, 5(1), 31-56.

Footnote 105 utilize measures of information asymmetry and liquidity, such as the bidask spread (Amihud and Mendelson, 1986) and the probability of an informed trade, or "PIN" (Duarte and Young, 2009).

Alternatively, the EA could have used the quasi-natural experiments related to more frequent disclosures in other jurisdictions. For example, the EA notes that "a number of foreign jurisdictions require disclosure of greater frequency and timeliness, relative to current U.S. requirements." The EA references studies of other jurisdictions with monthly (France) and daily (Hong Kong) repurchase disclosure requirements (Ginglinger and Hamon, 2007; Brockman and Chung, 2001). At a minimum, the Commission could compare liquidity measures of similarly sized issuers operating in the same industry that conduct buybacks across countries with quarterly (U.S.), monthly (France), and daily ("UK" or Hong Kong) repurchase disclosure requirements. Such an analysis would help establish whether higher frequency disclosures have a measurable influence on market-based measures of liquidity and information asymmetry.

Another possible avenue for quantification that the Commission does not consider would be to estimate the incremental information associated with next-day reporting for firms in jurisdictions requiring such disclosure—because the information contained in order flow on the day that a repurchase occurs would be impounded into stock prices. Next-day disclosure would be expected to resolve residual uncertainty regarding the identity of the parties. Such an analysis would quantify

the marginal impact of next-day disclosure requirements. In fact, the EA implicitly recognizes that the incremental information associated with share repurchases may already be reflected in shares prices and that the disclosure itself may not convey economically important information:

"The benefit of the information contained in a disclosure of recent repurchase activity would be lower to the extent that large issuer repurchases already have a price impact, resulting in price discovery and indirect revelation of information to the market, even in the absence of daily disclosure."

By ignoring this issue, the EA fails to quantify the benefit of the proposed amendments, even though the SEC had the ability and resources to directly analyze the economic impact of more frequent disclosure. In fact, Footnote 89 of the EA admits that a study by Brockman and Chung (2001) shows that variation in repurchase frequency does not appear to influence the impact of share repurchases on liquidity:²⁸

"[T]hey compare their findings with those from a foreign regime with a different reporting frequency and extrapolate that "[t]he similarity of our results to the results for the Hong Kong market indicates that the choice of whether to require firms to disclose repurchases one day versus one month after execution does not affect the impact of share repurchases on liquidity"; while the study further concludes that this suggests "that there are limited benefits from requiring greater post-trade transparency of

^{28.} See Brockman, P., & Chung, D. Y. (2001). Managerial timing and corporate liquidity: Evidence from actual share repurchases. *Journal of Financial Economics*, 61(3), 417-448.

share repurchases, the conclusion that greater disclosure of repurchases would have limited benefits, in our view, does not follow from the similarity of the effects of repurchases on liquidity in the two countries referenced in the study. As a further caveat, there are potentially significant comparability issues in evaluating data from different jurisdictions, which have varying legal and market conditions for repurchases."

Rather than provide this comparison, the EA simply caveats that variation in legal jurisdictions lead to comparability issues.²⁹ However, such differences could be addressed in a regression model that examines (or matches) on variation in the properties of periodic and ongoing disclosure obligations.³⁰

The EA also notes that numerous studies attest market quality and liquidity are higher during repurchase periods under the current system of quarterly reporting of repurchase activity (e.g., Busch and Obernberger, 2017; Hillert et al. 2016). Thus, substantial evidence cited in the EA already calls into question the notion that greater repurchase disclosure frequency will necessarily manifest into material stock liquidity improvements, because the information contained in order flow may subsume much of the information that would be contained in more frequent disclosure.

In support of this notion, recent work by Lewis and White (2021) shows a large, positive impact of buybacks on liquidity during repurchase periods.31 Lewis and White study a large sample of more than 10,000 U.S. companies over 17 years and find that issuers utilize repurchases to increase stock liquidity and reduce volatility, which stabilizes stock prices. They find that buybacks significantly reduce both realized and anticipated return volatility. The authors' analysis shows that buybacks generate an economically large benefit for all investors, including retail investors who saved between \$2.1 billion and \$4.2 billion in transaction and price impact costs due to buybacks since 2004. They find that issuers utilize market-based estimates of future volatility to inform their buyback decisions and that when volatility is expected to be higher, issuers increase their buyback intensity to stabilize stock prices, thereby reducing costs for retail investors. Issuers respond to exogenous variation in economic policy uncertainty by strengthening their buyback activities. Issuers also expand buyback activity during critical periods when current investors sell relatively large amounts of shares. Thus, managers use buybacks to actively mitigate price pressure during periods of net selling.

The EA also fails to consider whether daily disclosure could result in so many repurchase filings that it essentially creates "noise" in the disclosure regime.

^{29.} The following discussion is found on page 47 of the Proposal: "While we could not find studies analyzing empirically how the introduction of more frequent disclosure affected buybacks in foreign countries, we also were not able to find evidence that such disclosure requirements adversely affected shareholder value or market participants. The broad application of a disclosure requirement to issuers in a given jurisdiction makes it hard to formulate an empirical setting, such as a quasi-natural experiment, that effectively addresses the question of how the introduction of the disclosure affected buybacks and issuers that undertake them. Moreover, there are potentially significant differences between jurisdictions with respect to other repurchase regulations, market structure, taxation, composition of the subset of issuers that undertake repurchases, and the subset of investors in such issuers, complicating cross-country comparisons or extrapolation from international studies to the U.S. setting."

^{30.} For example, see the approach in Boone, A. L., Schumann-Foster, K., & White, J. T. (2021). Ongoing SEC disclosures by foreign firms. *The Accounting Review*, 96(3), 91-120.

^{31.} See Lewis, C. M., & White, J. T. (2021). Corporate liquidity provision and share repurchase programs. U.S. Chamber of Commerce: Center for Capital Markets Competitiveness, Fall 2021. Available at https://www.centerforcapitalmarkets.com/wp-content/uploads/2021/09/CCMC_Stock-Buybacks_WhitePaper_10.2.21.pdf.

This concern should be considered because prior academic work notes that "too much disclosure can be as costly as too little disclosure." ³²

Taken together, the EA fails to robustly demonstrate the conjectured benefits of greater repurchase disclosure

frequency on stock liquidity, capital costs, and capital formation; instead, the EA provides a subjective discussion that fails to fully recognize the role of price discovery and existing studies that empirically link repurchase activity to greater liquidity under the current quarterly repurchase disclosure regime.

III. Summary of Economic Analysis

In this comment letter, we evaluate the Proposal to increase disclosure requirements for share repurchases. Specifically, we analyze the accompanying EA to assess whether it presents a robust cost-benefit analysis that objectively informs the Proposal.

As we demonstrate above, the EA fails to convincingly demonstrate that the Proposal has merit. The EA neglects to demonstrate a market failure that requires regulation; inaccurately or incompletely characterizes the baseline; and omits important citations of studies that could inform the proposed rulemaking. Moreover, the Proposal relies heavily on an analysis by former SEC Commissioner Robert Jackson that contains empirical flaws.

The EA also largely fails to quantify the likely economic impact of the Proposal and instead argues that these analyses are infeasible due to data limitations and that "much of the discussion remains qualitative in nature." Although this is a common problem that Commission

staff must confront when developing EAs, our comment letter identifies many straightforward methods to quantify the alleged market failures and the potential incremental benefits of the Proposal. Further, we highlight instances where the Commission's own 2020 SEC Staff Study provides such quantification, which explicitly refutes many of the ostensible market failures referenced in the Proposal.

Taken together, the Proposal and accompanying EA fail to present robust evidence of a market failure attributable to the current disclosure requirements for share repurchases. We conclude that the Commission has failed to establish a need for additional rulemaking that deviates from the status quo.

^{32.} See Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. *Journal of Accounting and Economics*, 31(1-3), 441-456. Core notes that too much disclosure can result in stock price volatility that attracts high-frequency traders and cites Bushee and Noe (2000). See Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of Accounting Research*, 38, 171-202.

IV. Appendix A. Studies Cited in Proposal

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
1	Buybacks used by insiders to influence stock prices	1	Chan, K., Ikenberry, D. L., Lee, I., & Wang, Y. (2010). Share repurchases as a potential tool to mislead investors. <i>Journal of Corporate Finance</i> , 16(2), 137-158.	FN14, FN79, FN81	I. Introduction; IV. EA
1	Buybacks used by insiders to influence stock prices	2	Palladino, L. (2020). Do corporate insiders use stock buybacks for personal gain? <i>International Review of Applied Economics</i> , 34(2), 152-174.	FN15, FN81	I. Introduction; IV. EA
1	Buybacks used by insiders to influence stock prices	3	Palladino, L. & Lazonick, W. (2021, May). Regulation Stock Buybacks: The \$6.3 Trillion Question, <i>Roosevelt Institute Working Paper</i> .	FN15, FN17	I. Introduction
1	Buybacks used by insiders to influence stock prices	4	SEC Staff Response to Congress: Negative Net Equity Issuance, December 2020.	FN58, FN59, FN60, FN63, FN70, FN80	IV. EA
1	Buybacks used by insiders to influence stock prices	5	Jackson, Jr., R. J., (2018, June 11). Stock buybacks and corporate cashouts, Speech by Commissioner Jackson before the Center for American Progress.	FN15, FN17	I. Introduction
2	Buyback disclosure informs market participants	6	Bonaimé, A. A. (2015). Mandatory disclosure and firm behavior: Evidence from share repurchases. <i>The Accounting Review</i> , 90(4), 1333-1362.	FN27, FN79, FN86, FN99	II. Proposed Amendments; IV. EA
3	Broad study of buybacks	7	Grullon, G., & Ikenberry, D. L. (2000). What do we know about stock repurchases? <i>Journal of Applied Corporate Finance</i> , 13(1), 31-51.	FN28	II. Proposed Amendments
3	Broad study of buybacks	8	Farre-Mensa, J., Michaely, R., & Schmalz, M. (2014). Payout policy. <i>Annual Review of Financial Economics</i> , 6(1), 75-134.	FN58, FN64, FN70	IV. EA
4	Buybacks fluctuate during economic cycles	9	Campello, M., Graham, J. R., & Harvey, C. R. (2010). The real effects of financial constraints: Evidence from a financial crisis. <i>Journal of Financial Economics</i> , 97(3), 470-487.	FN60	IV. EA
4	Buybacks fluctuate during economic cycles	10	Dittmar, A. K., & Dittmar, R. F. (2008). The timing of financing decisions: An examination of the correlation in financing waves. <i>Journal of Financial Economics</i> , 90(1), 59-83.	FN60, FN66	IV. EA
4	Buybacks fluctuate during economic cycles	11	Floyd, E., Li, N., & Skinner, D. J. (2015). Payout policy through the financial crisis: The growth of repurchases and the resilience of dividends. <i>Journal of Financial Economics</i> , 118(2), 299-316.	FN60	IV. EA
5	Buybacks are less of a commitment than dividends	12	Healy, P. M., & Palepu, K. G. (1988). Earnings information conveyed by dividend initiations and omissions. <i>Journal of</i> <i>Financial Economics</i> , 21(2), 149-175.	FN61	IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
5	Buybacks are less of a commitment than dividends	13	Michaely, R., Thaler, R. H., & Womack, K. L. (1995). Price reactions to dividend initiations and omissions: Overreaction or drift? <i>Journal of Finance</i> , 50(2), 573-608.	FN61	IV. EA
5	Buybacks are less of a commitment than dividends	14	Lee, B. S., & Mauck, N. (2016). Dividend initiations, increases and idiosyncratic volatility. <i>Journal of Corporate Finance</i> , 40, 47-60.	FN61	IV. EA
5	Buybacks are less of a commitment than dividends	15	Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. Journal of Financial Economics, 77(3), 483-527.	FN62, FN72, FN78, FN83	IV. EA
6	Buybacks substitute for dividends	16	Skinner, D. J. (2008). The evolving relation between earnings, dividends, and stock repurchases. <i>Journal of Financial Economics</i> , 87(3), 582-609.	FN63	IV. EA
6	Buybacks substitute for dividends	17	Grullon, G., & Michaely, R. (2002). Dividends, share repurchases, and the substitution hypothesis. <i>Journal of Finance</i> , 57(4), 1649-1684.	FN63	IV. EA
7	Buybacks signal stock is undervalued	18	Vermaelen, T. (1981). Common stock repurchases and market signalling: An empirical study. Journal of Financial Economics, 9(2), 139-183.	FN65	IV. EA
7	Buybacks signal stock is undervalued	19	Vermaelen, T. (1984). Repurchase tender offers, signaling, and managerial incentives. <i>Journal of Financial and</i> <i>Quantitative Analysis</i> , 19(2), 163-181.	FN65	IV. EA
7	Buybacks signal stock is undervalued	20	Constantinides, G. M., & Grundy, B. D. (1989). Optimal investment with stock repurchase and financing as signals. <i>Review of Financial Studies</i> , 2(4), 445-465.	FN65	IV. EA
7	Buybacks signal stock is undervalued	21	Hausch, D. B., & Seward, J. K. (1993). Signaling with dividends and share repurchases: A choice between deterministic and stochastic cash disbursements. <i>Review of Financial Studies</i> , 6(1), 121-154.	FN65	IV. EA
7	Buybacks signal stock is undervalued	22	McNally, W. J. (1999). Open market stock repurchase signaling. <i>Financial Management</i> , 55-67.	FN65	IV. EA
7	Buybacks signal stock is undervalued	23	Ofer, A. R., & Thakor, A. V. (1987). A theory of stock price responses to alternative corporate cash disbursement methods: Stock repurchases and dividends. <i>Journal of Finance</i> , 42(2), 365-394.	FN65	IV. EA
7	Buybacks signal stock is undervalued	24	Persons, J. C. (1997). Heterogeneous shareholders and signaling with share repurchases. <i>Journal of Corporate Finance</i> , 3(3), 221-249.	FN65	IV. EA
8	Stock price changes after buybacks	25	Dittmar, A., & Field, L. C. (2015). Can managers time the market? Evidence using repurchase price data. <i>Journal of Financial Economics</i> , 115(2), 261-282.	FN66, FN82, FN84	IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
8	Stock price changes after buybacks	26	Ben-Rephael, A., Oded, J., & Wohl, A. (2014). Do firms buy their stock at bargain prices? Evidence from actual stock repurchase disclosures. <i>Review of Finance</i> , 18(4), 1299-1340.	FN66, FN84	IV. EA
8	Stock price changes after buybacks	27	Chan, K., Ikenberry, D. L., & Lee, I. (2007). Do managers time the market? Evidence from open-market share repurchases. <i>Journal of Banking & Finance</i> , 31(9), 2673-2694.	FN66, FN85	IV. EA
8	Stock price changes after buybacks	28	Cook, D. O., Krigman, L., & Leach, J. C. (2004). On the timing and execution of open market repurchases. <i>Review of Financial Studies</i> , 17(2), 463-498.	FN66	IV. EA
8	Stock price changes after buybacks	29	Obernberger, S. (2014). The timing of actual share repurchases. Available at SSRN 2434214.	FN66	IV. EA
8	Stock price changes after buybacks	10	Dittmar, A. K., & Dittmar, R. F. (2008). The timing of financing decisions: An examination of the correlation in financing waves. <i>Journal of Financial Economics</i> , 90(1), 59-83.	FN60, FN66	IV. EA
8	Stock price changes after buybacks	30	Bonaimé, A. A., Hankins, K. W., & Jordan, B. D. (2016). The cost of financial flexibility: Evidence from share repurchases. <i>Journal of Corporate Finance</i> , 38, 345-362.	FN66	IV. EA
8	Stock price changes after buybacks	31	Evgeniou, T., de Fortuny, E. J., Nassuphis, N., & Vermaelen, T. (2018). Volatility and the buyback anomaly. <i>Journal of Corporate Finance</i> , 49, 32-53.	FN66	IV. EA
8	Stock price changes after buybacks	32	Bargeron, L., Bonaime, A., & Thomas, S. (2017). The timing and source of long-run returns following repurchases. <i>Journal of Financial and Quantitative Analysis</i> , 52(2), 491-517.	FN66	IV. EA
8	Stock price changes after buybacks	33	Peyer, U., & Vermaelen, T. (2009). The nature and persistence of buyback anomalies. <i>Review of Financial Studies</i> , 22(4), 1693-1745.	FN66	IV. EA
8	Stock price changes after buybacks	34	Fu, F., & Huang, S. (2016). The persistence of long-run abnormal returns following stock repurchases and offerings. Management Science, 62(4), 964-984.	FN66	IV. EA
9	Buybacks supply liquidity during selling pressure	35	Liu, H., & Swanson, E. P. (2016). Is price support a motive for increasing share repurchases? Journal of Corporate Finance, 38, 77-91.	FN67, FN81	IV. EA
10	Buybacks reduce agency costs of equity	36	Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. <i>American Economic Review</i> , 76(2), 323-329.	FN71	IV. EA
10	Buybacks reduce agency costs of equity	15	Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. Journal of Financial Economics, 77(3), 483-527.	FN62, FN72, FN78, FN83	IV. EA
10	Buybacks reduce agency costs of equity	37	Grullon, G., & Michaely, R. (2004). The information content of share repurchase programs. <i>Journal of Finance</i> , 59(2), 651-680.	FN73	IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
11	Buybacks are flexible	38	Guay, W., & Harford, J. (2000). The cash-flow permanence and information content of dividend increases versus repurchases. <i>Journal</i> of Financial Economics, 57(3), 385-415.	FN74	IV. EA
11	Buybacks are flexible	39	Jagannathan, M., Stephens, C. P., & Weisbach, M. S. (2000). Financial flexibility and the choice between dividends and stock repurchases. Journal of Financial Economics, 57(3), 355-384.	FN74	IV. EA
11	Buybacks are flexible	40	Hoberg, G., & Prabhala, N. R. (2008). Disappearing dividends, catering, and risk. Review of Financial Studies, 22(1), 79-116.	FN75	IV. EA
12	Buybacks are tax efficient	41	Feng, L., Pukthuanthong, K., Thiengtham, D., Turtle, H. J., & Walker, T. J. (2013). The Effects of Cash, Debt, and Insiders on Open Market Share Repurchases. <i>Journal of Applied Corporate Finance</i> , 25(1), 55-63.	FN76	IV. EA
13	Buybacks are used to adjust target leverage	42	Baker, M., & Wurgler, J. (2002). Market timing and capital structure. Journal of Finance, 57(1), 1-32.	FN77	IV. EA
13	Buybacks are used to adjust target leverage	43	Ma, Y. (2019). Nonfinancial firms as cross-market arbitrageurs. <i>Journal of Finance</i> , 74(6), 3041-3087.	FN77	IV. EA
13	Buybacks are used to adjust target leverage	44	Hovakimian, A. (2004). The role of target leverage in security issues and repurchases. Journal of Business, 77(4), 1041-1072.	FN77	IV. EA
14	Buybacks are used for real earnings management	45	Burnett, B. M., Cripe, B. M., Martin, G. W., & McAllister, B. P. (2012). Audit quality and the trade-off between accretive stock repurchases and accrual-based earnings management. <i>The Accounting Review</i> , 87(6), 1861-1884.	FN78	IV. EA
14	Buybacks are used for real earnings management	15	Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. Journal of Financial Economics, 77(3), 483-527.	FN62, FN72, FN78, FN83	IV. EA
14	Buybacks are used for real earnings management	46	Hribar, P., Jenkins, N. T., & Johnson, W. B. (2006). Stock repurchases as an earnings management device. <i>Journal of Accounting and Economics</i> , 41(1-2), 3-27.	FN78	IV. EA
14	Buybacks are used for real earnings management	47	Kurt, A. C. (2018). Managing EPS and signaling undervaluation as a motivation for repurchases: The case of accelerated share repurchases. Review of Accounting and Finance.	FN78	IV. EA
14	Buybacks are used for real earnings management	48	Almeida, H., Fos, V., & Kronlund, M. (2016). The real effects of share repurchases. <i>Journal of Financial Economics</i> , 119(1), 168-185.	FN78, FN80	IV. EA
14	Buybacks are used for real earnings management	49	Ezekoye, O., Koller, T., & Mittal, A. (2016, April 29). How share repurchases boost earnings without improving returns, <i>McKinsey</i> .	FN78	IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
15	Buybacks provide price support even when manipulation concerns are high	50	Busch, P., & Obernberger, S. (2017). Actual share repurchases, price efficiency, and the information content of stock prices. <i>Review of Financial Studies</i> , 30(1), 324-362.	FN79, FN81, FN85, FN98	IV. EA
16	Issuers do not complete all announced buybacks	1	Chan, K., Ikenberry, D. L., Lee, I., & Wang, Y. (2010). Share repurchases as a potential tool to mislead investors. <i>Journal of Corporate Finance</i> , 16(2), 137-158.	FN14, FN79, FN81	I. Introduction; IV. EA
16	Issuers do not complete all announced buybacks	51	Bonaimé, A. A. (2012). Repurchases, reputation, and returns. <i>Journal of Financial and Quantitative Analysis</i> , 47(2), 469-491.	FN79, FN95	IV. EA
16	Issuers do not complete all announced buybacks	6	Bonaimé, A. A. (2015). Mandatory disclosure and firm behavior: Evidence from share repurchases. <i>The Accounting Review</i> , 90(4), 1333-1362.	FN27, FN79, FN86, FN99	II. Proposed Amendments; IV. EA
16	Issuers do not complete all announced buybacks	52	Almazan, A., Banerji, S., & Motta, A. D. (2008). Attracting attention: Cheap managerial talk and costly market monitoring. Journal of Finance, 63(3), 1399-1436.	FN79	IV. EA
16	Issuers do not complete all announced buybacks	53	Bhattacharya, U., & E. Jacobsen, S. (2016). The share repurchase announcement puzzle: Theory and evidence. <i>Review of Finance</i> , 20(2), 725-758.	FN79	IV. EA
17	Buybacks are used to boost executive pay	54	Cheng, Y., Harford, J., & Zhang, T. T. (2015). Bonus-driven repurchases. <i>Journal of Financial</i> <i>and Quantitative Analysis</i> , 50(3), 447-475.	FN80, FN106	IV. EA
17	Buybacks are used to boost executive pay	55	Kim, S., & Ng, J. (2018). Executive bonus contract characteristics and share repurchases. <i>The Accounting Review</i> , 93(1), 289-316.	FN80	IV. EA
17	Buybacks are used to boost executive pay	56	Young, S., & Yang, J. (2011). Stock repurchases and executive compensation contract design: The role of earnings per share performance conditions. <i>The Accounting Review</i> , 86(2), 703-733.	FN80	IV. EA
17	Buybacks are used to boost executive pay	48	Almeida, H., Fos, V., & Kronlund, M. (2016). The real effects of share repurchases. <i>Journal of Financial Economics</i> , 119(1), 168-185.	FN78, FN80	IV. EA
17	Buybacks are used to boost executive pay	4	SEC Staff Response to Congress: Negative Net Equity Issuance, December 2020.	FN58, FN59, FN60, FN63, FN70, FN80	IV. EA
17	Buybacks are used to boost executive pay via EPS	57	Fields, R. (2016, September 20). Buybacks and the board: Director perspectives on the share repurchase revolution, https://corpgov.law.harvard.edu/2016/09/20/buybacks-and-the-board-director-perspectives-on-the-share- repurchase-revolution/.	FN80	IV. EA
18	Buybacks are used to boost executive pay via stock prices	1	Chan, K., Ikenberry, D. L., Lee, I., & Wang, Y. (2010). Share repurchases as a potential tool to mislead investors. <i>Journal of Corporate Finance</i> , 16(2), 137-158.	FN14, FN79, FN81	I. Introduction; IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
18	Buybacks are used to boost executive pay via stock prices	58	Bonaimé, A. A., & Ryngaert, M. D. (2013). Insider trading and share repurchases: Do insiders and firms trade in the same direction? Journal of Corporate Finance, 22, 35-53.	FN81, FN82	IV. EA
18	Buybacks are used to boost executive pay via stock prices	59	Cziraki, P., Lyandres, E., & Michaely, R. (2021). What do insiders know? Evidence from insider trading around share repurchases and SEOs. <i>Journal of Corporate Finance</i> , 66, 101544.	FN81, FN82	IV. EA
18	Buybacks are used to boost executive pay via stock prices	2	Palladino, L. (2020). Do corporate insiders use stock buybacks for personal gain? <i>International Review of Applied Economics</i> , 34(2), 152-174.	FN15, FN81	I. Introduction; IV. EA
18	Buybacks are used to boost executive pay via stock prices	60	Ahmed (2017). Insider trading around open- market share repurchases. Working Paper.	FN81	IV. EA
18	Buybacks are used to boost executive pay via stock prices	61	Edmans, A., Goncalves-Pinto, L., Groen-Xu, M., & Wang, Y. (2018). Strategic news releases in equity vesting months. <i>Review of Financial Studies</i> , 31(11), 4099-4141.	FN81	IV. EA
18	Buybacks are used to boost executive pay via stock prices	62	Edmans, A., Fang, V. W., & Huang, A. (2017). The long-term consequences of short-term incentives. European Corporate Governance Institute (ECGI)-Finance Working Paper, (527).	FN81	IV. EA
18	Buybacks are used to boost executive pay via stock prices	35	Liu, H., & Swanson, E. P. (2016). Is price support a motive for increasing share repurchases? Journal of Corporate Finance, 38, 77-91.	FN67, FN81	IV. EA
18	Buybacks are used to boost executive pay via stock prices	50	Busch, P., & Obernberger, S. (2017). Actual share repurchases, price efficiency, and the information content of stock prices. <i>Review of Financial Studies</i> , 30(1), 324-362.	FN79, FN81, FN85, FN98	IV. EA
19	Buybacks are timed with insider purchases to send credible signal	25	Dittmar, A., & Field, L. C. (2015). Can managers time the market? Evidence using repurchase price data. Journal of Financial Economics, 115(2), 261-282.	FN66, FN82, FN84	IV. EA
19	Buybacks are timed with insider purchases to send credible signal	63	Babenko, I., Tserlukevich, Y., & Vedrashko, A. (2012). The credibility of open market share repurchase signaling. <i>Journal of Financial and Quantitative Analysis</i> , 47(5), 1059-1088.	FN82	IV. EA
19	Buybacks are timed with insider purchases to send credible signal	58	Bonaimé, A. A., & Ryngaert, M. D. (2013). Insider trading and share repurchases: Do insiders and firms trade in the same direction? Journal of Corporate Finance, 22, 35-53.	FN81, FN82	IV. EA
19	Buybacks are timed with insider purchases to send credible signal	59	Cziraki, P., Lyandres, E., & Michaely, R. (2021). What do insiders know? Evidence from insider trading around share repurchases and SEOs. Journal of Corporate Finance, 66, 101544.	FN81, FN82	IV. EA
20	Issuers conduct buybacks when prices are low	15	Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. Journal of Financial Economics, 77(3), 483-527.	FN62, FN72, FN78, FN83	IV. EA
20	Issuers conduct buybacks when prices are low	25	Dittmar, A., & Field, L. C. (2015). Can managers time the market? Evidence using repurchase price data. <i>Journal of Financial Economics</i> , 115(2), 261-282.	FN66, FN82, FN84	IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
20	Issuers conduct buybacks when prices are low	26	Ben-Rephael, A., Oded, J., & Wohl, A. (2014). Do firms buy their stock at bargain prices? Evidence from actual stock repurchase disclosures. <i>Review of Finance</i> , 18(4), 1299-1340.	FN66, FN84	IV. EA
21	Buybacks improve stock liquidity	50	Busch, P., & Obernberger, S. (2017). Actual share repurchases, price efficiency, and the information content of stock prices. <i>Review of Financial Studies</i> , 30(1), 324-362.	FN79, FN81, FN85, FN98	IV. EA
21	Buybacks improve stock liquidity	28	Cook, D. O., Krigman, L., & Leach, J. C. (2004). On the timing and execution of open market repurchases. <i>Review of Financial Studies</i> , 17(2), 463-498.	FN66, FN85	IV. EA
21	Buybacks improve stock liquidity	64	Hillert, A., Maug, E., & Obernberger, S. (2016). Stock repurchases and liquidity. <i>Journal</i> of Financial Economics, 119(1), 186-209.	FN85	IV. EA
22	SEC regulations attenuate buyback behavior	6	Bonaimé, A. A. (2015). Mandatory disclosure and firm behavior: Evidence from share repurchases. <i>The Accounting Review</i> , 90(4), 1333-1362.	FN27, FN79, FN86, FN87, FN99	II. Proposed Amendments; IV. EA
23	Liquidity declines around buybacks	65	Ginglinger, E., & Hamon, J. (2007). Actual share repurchases, timing and liquidity. <i>Journal of Banking & Finance</i> , 31(3), 915-938.	FN89	IV. EA
23	Liquidity declines around buybacks	66	Brockman, P., & Chung, D. Y. (2001). Managerial timing and corporate liquidity: Evidence from actual share repurchases. <i>Journal of Financial Economics</i> , 61(3), 417-448.	FN89	IV. EA
24	Buybacks correct market undervaluation	67	Zhang, H. (2005). Share price performance following actual share repurchases. <i>Journal of Banking & Finance</i> , 29(7), 1887-1901.	FN90	IV. EA
24	Buybacks correct market undervaluation	68	Drousia, A., Episcopos, A., & Leledakis, G. N. (2019). Market reaction to actual daily share repurchases in Greece. <i>Quarterly Review of Economics and Finance</i> , 74, 267-277.	FN90	IV. EA
24	Buybacks correct market undervaluation	69	Bratli, D., & Rehman, O. (2015). The price impact and timing of actual share repurchases in Norway (Master's thesis).	FN90	IV. EA
25	Disclosing buyback rationale correlates with completion rates	51	Bonaimé, A. A. (2012). Repurchases, reputation, and returns. <i>Journal of Financial and Quantitative Analysis</i> , 47(2), 469-491.	FN79, FN95	IV. EA
26	Benefits of disclosing buyback rationale may or may not be limited due by boilerplate	70	Cazier, R. A., McMullin, J. L., & Treu, J. S. (2021). Are lengthy and boilerplate risk factor disclosures inadequate? An examination of judicial and regulatory assessments of risk factor language. <i>The Accounting Review</i> , 96(4), 131-155.	FN96	IV. EA
26	Benefits of disclosing buyback rationale may or may not be limited due by boilerplate	71	Nelson, K. K., & Pritchard, A. C. (2016). Carrot or stick? The shift from voluntary to mandatory disclosure of risk factors. <i>Journal</i> of <i>Empirical Legal Studies</i> , 13(2), 266-297.	FN96	IV. EA

Topic #	Citation Topic in Proposal	Study#	Study	Location (Footnote, or FN)	Section
26	Benefits of disclosing buyback rationale may or may not be limited due by boilerplate	72	Campbell, J. L., Chen, H., Dhaliwal, D. S., Lu, H. M., & Steele, L. B. (2014). The information content of mandatory risk factor disclosures in corporate filings. <i>Review of Accounting Studies</i> , 19(1), 396-455.	FN96	IV. EA
27	Mandatory disclosures affect issuer behavior	73	Chuk, E. C. (2013). Economic consequences of mandated accounting disclosures: Evidence from pension accounting standards. <i>The Accounting Review</i> , 88(2), 395-427.	FN99	IV. EA
27	Mandatory disclosures affect issuer behavior	6	Bonaimé, A. A. (2015). Mandatory disclosure and firm behavior: Evidence from share repurchases. <i>The Accounting Review</i> , 90(4), 1333-1362.	FN27, FN79, FN86, FN87, FN99	II. Proposed Amendments; IV. EA
28	Decreases in information asymmetry lowers the cost of capital	74	Easley, D., & O'Hara, M. (2004). Information and the cost of capital. Journal of Finance, 59(4), 1553-1583.	FN100	IV. EA
28	Decreases in information asymmetry lowers the cost of capital	75	Botosan, C. A. (2006). Disclosure and the cost of capital: What do we know? <i>Accounting and Business Research</i> , 36(Sup1), 31-40.	FN100	IV. EA
28	Decreases in information asymmetry lowers the cost of capital	76	Lambert, R., Leuz, C., & Verrecchia, R. E. (2007). Accounting information, disclosure, and the cost of capital. <i>Journal of Accounting Research</i> , 45(2), 385-420.	FN100	IV. EA
29	Price impact could be disproportionate for small issuers	77	Amihud, Y., & Mendelson, H. (1986). Liquidity and stock returns. <i>Financial</i> <i>Analysts Journal</i> , 42(3), 43-48.	FN105	IV. EA
29	Price impact could be disproportionate for small issuers	78	Duarte, J., & Young, L. (2009). Why is PIN priced? Journal of Financial Economics, 91(2), 119-138.	FN105	IV. EA
30	Disproportionate impact on small issuers offset by less frequent repurchases	79	Dittmar, A. K. (2000). Why do firms repurchase stock? <i>Journal of Business</i> , 73(3), 331-355.	FN106	IV. EA
30	Disproportionate impact on small issuers offset by less frequent repurchases	54	Cheng, Y., Harford, J., & Zhang, T. T. (2015). Bonus-driven repurchases. <i>Journal of Financial</i> and <i>Quantitative Analysis</i> , 50(3), 447-475.	FN80, FN106	IV. EA
30	Disproportionate impact on small issuers offset by less frequent repurchases	80	Jiang, Z., Kim, K. A., Lie, E., & Yang, S. (2013). Share repurchases, catering, and dividend substitution. <i>Journal of Corporate Finance</i> , 21, 36-50.	FN106	IV. EA

V. Appendix B. Studies Not Cited in Proposal

Topic in Comment Letter	Study #	Omitted Study	Section
Insider selling around repurchases	1	Dittmann, I., Li, A. Y., Obernberger, S., & Zheng, J. (2022). The impact of the corporate calendar on the timing of share repurchases and equity grants. Available at SSRN 4004098.	I.A.
Buybacks to boost executive pay	2	Fields, R.,(2016). Buybacks and the board: Director perspectives on the share repurchase revolution. Investor Responsibility Research Center Institute (IRRC) Institute/Tapestry Network.	I.B.
Buybacks to boost executive pay	3	PriceWaterhouseCoopers. (2019, July). Share repurchases, executive pay and investment. Report to Department for Business, Energy & Industrial Strategy, BEIS Research Paper 2019/011.	I.B.
Buybacks to boost executive pay	4	Bargeron, L., Kulchania, M., & Thomas, S. (2011). Accelerated share repurchases. <i>Journal of Financial Economics</i> , 101(1), 69-89.	I.B.
Buybacks to boost executive pay	5	Bennett, B., Bettis, J. C., Gopalan, R., & Milbourn, T. (2017). Compensation goals and firm performance. Journal of Financial Economics, 124(2), 307-330	I.B.
Buybacks to boost executive pay	6	Bens, D. A., Nagar, V., Skinner, D. J., & Wong, M. F. (2003). Employee stock options, EPS dilution, and stock repurchases. Journal of Accounting and Economics, 36(1-3), 51-90.	I.B.
Buybacks, investment, and employees	7	Fried, J., & Wang, C.C.Y. (2019, March 13). Democratic senators and the buyback boogeyman. <i>Harvard Law School Forum on Corporate Governance</i> .	I.C.
Buybacks, investment, and employees	8	Lazonick, W. (2014, September). Profits without prosperity. <i>Harvard Business Review</i> , 46-55.	I.C.
Buybacks, investment, and employees	9	Fried, J. M., & Wang, C. C. (2018). Are buybacks really shortchanging investment? <i>Harvard Business Review</i> , 96(2), 88-95.	I.C.
Buybacks, investment, and employees	10	Fried, J. M., & Wang, C. C. (2019). Short-termism and capital flows. <i>Review of Corporate Finance Studies</i> , 8(1), 207-233.	I.C.
Buybacks, investment, and employees	11	Fried, J. M., & Wang, C. C. (2021). Short-termism, shareholder payouts and investment in the EU. <i>European Financial Management</i> , 27(3), 389-413.	I.C.
Buybacks, investment, and employees	12	Asness, C., Hazelkorn, T., & Richardson, S. (2018). Buyback derangement syndrome. <i>Journal of</i> <i>Portfolio Management</i> , 44(5), 50-57.	I.C.
Buybacks, investment, and employees	13	Edmans, A. (2017, September 15). The case for stock buybacks. <i>Harvard Business Review</i> .	I.C.
Buybacks, investment, and employees	14	Edmans, A. (2020). Grow the pie: How great companies deliver both purpose and profit. Cambridge University Press.	I.C.
Buybacks, investment, and employees	15	Lewis, C. M. (2019). <i>The economics of share repurchase programs</i> . Report commissioned by the Association of Mature American Citizens.	I.C.
Buybacks and information asymmetry	16	Grossman, S. J., & Stiglitz, J. E. (1980). On the Impossibility of Informationally Efficient Markets. American Economic Review, 70(3), 393–408.	П
	Insider selling around repurchases Buybacks to boost executive pay Buybacks, investment, and employees Buybacks and information	Insider selling around repurchases Buybacks to boost executive pay Buybacks, investment, and employees Buybacks, investment, and employees	Insider selling around 1 Dittmann, I., Li, A. Y., Obernberger, S., & Zheng, J. (2022). The impact of the corporate calendar on the timing of share repurchases and equity grants. Available at SSRN 4004098. Buybacks to boost executive pay 2 Fields, R., (2016). Buybacks and the board: Director perspectives on the share repurchases and equity grants. Available at SSRN 4004098. Buybacks to boost executive pay 3 PriceWaterhouseCoopers. (2019, July). Share repurchases, executive pay and investment. Report to Department for Business, Energy & Industrial Strategy, BEIS Research Paper 2019/011. Buybacks to boost executive pay 4 Bargeron, L., Kulchania, M., & Thomas, S. (2011). Accelerated share repurchases. Journal of Financial Economics, 101(1), 69-89. Buybacks to boost executive pay 5 Bennett, B., Bettis, J. C., Gopalan, R., & Milbourn, T. (2017). Compensation goals and firm performance. Journal of Financial Economics, 124(2), 307-330. Buybacks to boost executive pay 6 Bens, D. A., Nagar, Y., Skinner, D. J., & Wong, M. F. (2003). Employee stock options, EPS dilution, and stock repurchases. Journal of Accounting and Economics, 36(1-3), 61-90. Buybacks, investment, and employees 8 Buybacks, investment, and employees 9 Fried, J. M., & Wang, C. C. (2018). Are buyback really shortchanging investment, and employees 1 Eried, J. M., & Wang, C. C. (2018). Are buybacks really shortchanging investment, and employees 1 Eried, J. M., & Wang, C. C. (2019). Short-termism and capital flows. Review of Corporate Finance Studies, 8(1), 207-233. Buybacks, investment, and employees 1 Edmans, A. (2017, September). Profits without prosperity. Harvard Business Review, 96(2), 88-95. Buybacks, investment, and employees 1 Edmans, A. (2017, September). Profits without prosperity Harvard Business Review. 96(2), 88-95. Buybacks, investment, and employees 1 Edmans, A. (2017, September). Profits without prosperity Press. Buybacks, investment, and employees 1 Edmans, A. (2017, September). Profits without prosperity Press. Buybacks and 14 Ed

Topic #	Topic in Comment Letter	Study#	Omitted Study	Section
4	Buybacks and information asymmetry	17	Balakrishnan, K., Billings, M. B., Kelly, B., & Ljungqvist, A. (2014). Shaping liquidity: On the causal effects of voluntary disclosure. <i>Journal of Finance</i> , 69(5), 2237-2278	II
4	Buybacks and information asymmetry	18	Amihud, Y. (2002). Illiquidity and stock returns: Cross-section and time-series effects. <i>Journal of Financial Markets</i> , 5(1), 31-56	П
4	Buybacks and information asymmetry	19	Boone, A. L., Schumann-Foster, K., & White, J. T. (2021). Ongoing SEC disclosures by foreign firms. <i>The Accounting Review</i> , 96(3), 91-120.	II
4	Buybacks and information asymmetry	20	Lewis, C. M., & White, J.T. (2021). Corporate liquidity provision and share repurchase programs. U.S. Chamber of Commerce: Center for Capital Markets Competitiveness, Fall 2021.	П
4	Buybacks and information asymmetry	21	Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. <i>Journal of Accounting and Economics</i> , 31(1-3), 441-456.	II
4	Buybacks and information asymmetry	22	Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. Journal of Accounting Research, 38, 171-202	II

