MEMORANDUM

To: Commission File No. S7-06-22

From: Division of Economic and Risk Analysis

Date: April 28, 2023

Re: Supplemental data and analysis on certain economic effects of proposed amendments regarding the reporting of beneficial ownership

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The Commission proposed certain amendments to the rules governing beneficial ownership reporting in a release titled "Modernization of Beneficial Ownership Reporting" on February 10, 2022 (the "Proposing Release").[1] The comment period for the proposed amendments closed on April 11, 2022. After reviewing the comments provided, additional data, and existing research on beneficial ownership and activism, staff in the Division of Economic and Risk Analysis prepared this memorandum to provide supplemental analysis related to the proposed rules' economic effects.

In particular, this memorandum provides additional background and baseline data on Schedule 13D and 13G filings in Section 1 below, followed by supplemental analyses on two specific points pertaining to Schedule 13D filings. First, in Section 2, this memorandum further investigates potential effects on activism that may result from the proposed change to the initial Schedule 13D filing deadline. Second, in Section 3, this memorandum provides additional analysis of potential harms to certain selling shareholders under the existing filing deadline. Both Sections 2 and 3 include a discussion of relevant academic research as well as new quantitative analysis.

1. Baseline Data and Background

In this section, we[2] provide additional baseline information and background with respect to Schedule 13D and 13G filings to supplement the discussions in the Proposing Release.

a. Schedule 13D filings

During calendar year 2021, the Commission received a total of 5,434 Schedule 13D filings, including 1,555 initial filings and 3,879 amendments.[3] Overall, these initial filings and

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1 *See Modernization of Beneficial Ownership Reporting*, Release Nos. 33-11030; 34-94211 (Feb. 10, 2022) [87 FR 13846 (Mar. 10, 2022)].

2 Throughout this memorandum, "we" refers to the staff of the Commission's Division of Economic and Risk Analysis.

3 These estimates are based on staff analysis of EDGAR filings. The Proposing Release reported that the Commission received 10,542 Schedule 13D filings (2,288 initial filings and 8,254 amendments) in calendar year 2020. Based on further staff review of these reported statistics, we believe they included duplicate records, and that the actual number of unique Schedule 13D filings received in 2020 was 5,288 filings (1,148 initial filings and 4,140 amendments), which are similar to the counts provided for 2021 above.

amendments involved 2,468 unique lead filers.[4] Additional details specific to the initial filings, including their breakdown and characteristics by filer type, are presented in Table 1.[5]

Table 1
Initial Schedule 13D Filings in 2021 by Filer Type

	Prominent Activists	Other Institutions	Other Individuals	Total
Number of unique lead filers	18	993	277	1,288
Number of initial filings	46	1,222	287	1,555
Median calendar days from trigger date* to filing date	10	10	10	10
Median ownership reported in filing	6.6%	14.3%	13.3%	13.3%

* The trigger date is the date on which the investor has acquired beneficial ownership of more than 5% of a class of equity securities described in Section 13(d)(1) of the Exchange Act and Rule 13d-1(i), or, for an investor previously eligible to file a Schedule 13G in lieu of a Schedule 13D pursuant to Rules 13d-1(b) or (c), the date on which the investor becomes ineligible to report on Schedule 13G.

b. Types of Schedule 13D Filings and Focus of Our Analysis

An initial Schedule 13D filing obligation can be triggered by the acquisition of beneficial ownership of more than five percent of a class of equity securities through various different means, including not only the accumulation of shares on the open market but also the receipt of shares through events involving off-market transactions. As discussed below, we expect that filings involving the acquisition of shares as a result of certain corporate actions and other off-market transactions (*e.g.*, equity grants to executives) are less likely to be characterized as

4 This estimate is based on staff analysis of EDGAR filings. "Lead filer" indicates the filer that submits a filing to the Commission, though the same filing may include information about additional co-filers.

5 These estimates are based on staff analysis of EDGAR filings. The "Prominent Activists" category is based on the classification of the filer as a "Sharkwatch 50" activist in the FactSet SharkRepellent database, and represents FactSet's compilation of the 50 most significant activists based on, *e.g.*, the number and impact of their campaigns. The "Other Institutions" category is based on filings by institutions (primarily partnerships, corporations, investment advisors, and banks) that do not fall in the "Prominent Activist" category. The "Other Individuals" category is based on filings that report holdings of individuals and no other filer type and that do not fall in the "Prominent Activist" category; filings that report holdings of individuals who are co-filing as affiliates or part of a group with institutions (none of whom fall in the "Prominent Activist" category) are included in the "Other Institutions" category. Information about the number of days from the trigger date to the filing date of the Schedule 13D and the beneficial ownership percentage reported in the Schedule 13D, respectively, are based on a subset of filings (about 97% of the filings) for which we were able to extract the required information. The "median ownership reported in filing" row represents the median, across filings, of the maximum beneficial ownership percentage separately reported in a filing and may thus understate the aggregate ownership of a group of co-filers. Based on hand-collection of aggregate ownership in a random subsample of filings, we estimate that this approach does not fully aggregate all of the ownership reported by a group of co-filers in approximately 7% of the filings. In contrast, alternative algorithms we considered to aggregate ownership reported in different fields in a given filing very often vastly overstated ownership due to the double-counting of shares whose beneficial ownership could be attributed to multiple affiliates.

announcements of activist campaigns. For additional reasons discussed in this subsection, the analyses in Sections 2 and 3 of this memorandum will focus on filings that are less likely to be related to corporate actions and other off-market transactions and thus more likely to represent activist campaigns. Therefore, we first delineated the sample of filings accordingly.

Based on staff review of over a decade of Schedule 13D filings,[6] we believe that transaction history disclosures pursuant to Item 5(c) of Schedule 13D provide a reasonable means of identifying, in a large sample, those filings that are likely to reflect the acquisition of beneficial ownership through corporate actions or other off-market transactions as opposed to those that are less likely to be related to corporate actions and more likely to represent activist campaigns. In particular, for those filings for which we could not extract a history of transactions in tabular form, we found that most reported only one or two transactions representing off-market transfers of shares.[7] We found that these filings are typically associated with beneficial ownership acquired in events such as mergers and acquisitions, IPOs, other restructurings, private placements, or compensation awards.[8] For purposes of this memorandum, we therefore categorize these filings as "corporate action filings."[9] In contrast, we found that filings that report a transaction history in tabular form are typically associated with the accumulation of shares in open-market trading through a sequence of multiple transactions and are more likely to discuss potential plans and proposals that are commonly viewed as characteristic of activist campaigns.[10] For purposes of this memorandum, we therefore categorize the filings for which we

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6 Staff analyzed initial Schedule 13D filings from EDGAR from calendar years 2011 to 2021 through programmatic text analysis and manual review. Programmatic search terms were designed to identify text or data associated with transactions or with beneficial ownership obtained through various kinds of events.

7 This observation is based on staff review of initial Schedule 13D filings from EDGAR from calendar years 2011 to 2021 through programmatic text analysis and manual review. In particular, staff extracted potential transaction dates outside of any tabular disclosure by searching for any text in the format of a date that seemed to be accompanied by a price and/or a quantity of shares. Among the filings for which a tabular history of transactions was not extracted, no more than two potential transaction dates were extracted for about 70% of the filings. Upon manual review of the remaining 30% of the filings for which a tabular history of transactions was not extracted, we found that a large number of the additional potential transaction dates that were programmatically extracted do not actually reflect transactions. We therefore believe that a significant fraction of these remaining filings also reflect no more than two transactions.

8 This observation is based on staff review of initial Schedule 13D filings from EDGAR from calendar years 2011 to 2021 through programmatic text analysis and manual review, including significant manual review of the disclosures pursuant to Item 3 of the Schedule 13D filings to confirm the source of the shares acquired.

9 While we label all of these filings as "corporate action filings" for simplicity, we acknowledge that some of these filings represent transfers that are not strictly related to corporate actions, such as bequests of shares, and that our classification methodology is subject to some possible error. For example, 2% of these filings reflected in Table 2 below are made by Prominent Activists, as described *supra* note 5 (representing 27% of all of the filings by Prominent Activists in Table 1 above), and it is possible that such filings may represent activist campaigns incorrectly classified as corporate action filings.

10 This observation is based on staff review of initial Schedule 13D filings from EDGAR from calendar years 2011 to 2021 through programmatic text analysis and manual review, including significant manual review of the disclosures pursuant to Item 4 of the Schedule 13D filings regarding the purpose of the transaction. Examples of plans and proposals that were considered characteristic of activist campaigns include potential

are able to extract a transaction history in tabular form as "non-corporate-action filings," which we view as more likely to involve activist campaigns, with an understanding that we may be somewhat over-inclusive in our application of the term "activist campaign."[11] We present a breakdown of the percentages of initial Schedule 13D filings in calendar years 2011 through 2021 that we characterize as "non-corporate-action filings" or "corporate action filings" based on the nature of transaction histories extracted from the filings in Table 2.[12]

Table 2
Types of Initial Schedule 13D Filings in 2011-2021

			Breakdown by Filer Type		
	Number of Filings	**Percentage of All Filings**	**Prominent Activists**	**Other Institutions**	**Other Individuals**
Non-Corporate-Action Filings*	3,067	20%	26%	67%	7%
Corporate Action Filings**	12,657	80%	2%	68%	30%

* Filings for which we extracted tabular trading histories are categorized as "Non-Corporate-Action Filings" due to the results of our programmatic and manual review of such filings. *See* note 11 regarding some of the limitations of this approach. About 11% of these filings were filed late relative to the current deadline (*see* note 12).

** Filings for which we did not extract tabular trading histories are categorized as "Corporate Action Filings" due to the results of our programmatic and manual review of such filings. *See* note 9 regarding some of the limitations of this approach. About 34% of filings in this category were filed late relative to the current deadline (*see* note 12).

We expect that the effects of the proposed amendments will differ with respect to corporate action filings and non-corporate-action filings. Specifically, the effects of the proposed filing deadline amendments with respect to the corporate action filings in the second row of Table 2 are expected to be limited. As previously indicated, these filings typically reflect one or two transactions that involve off-market transfers of share ownership. We found that very few of

discussions or recommendations with respect to board composition, business strategy, capital structure and dividend policies, and a potential sale process for the issuer or a segment of the issuer.

11 In our manual review of these filings, we did observe many instances of beneficial ownership held for investment purposes, with no stated plans or proposals, which are nonetheless included in our category of non-corporate-action filings by virtue of their filing on Schedule 13D (rather than Schedule 13G) and their inclusion of a tabular transaction history. In general, our classification methodology is subject to some possible error. Further, a filer might not consider itself an "activist investor" or be viewed as such even if it is involved in what we label as a non-corporate-action filing and characterize as a potential activist campaign for purposes of this memorandum.

12 These estimates are based on staff analysis of EDGAR filings through programmatic text analysis. See *supra* note 5 regarding the filer type classifications and the extraction of percentage beneficial ownership data from filings. The classification of filings as late (in the notes accompanying the table) accounts for the effect of weekends and holidays. By rule, the Commission accepts as timely any filing that, if the calendar due date falls on a weekend or holiday, is received by the next business day. 17 CFR 240.0-3(a) ("[I]f the last day on which [a filing] can be accepted as timely filed falls on a Saturday, Sunday or holiday, such [filing] may be [made] on the first business day following.").

these transfers seem to occur following the fifth day[13] after the filer[14] crosses the five percent threshold,[15] and we anticipate that the terms of these transfers are likely agreed upon in advance. We therefore believe that a change in the filing deadline would not significantly impact the activities of these filers, although adjusting to an accelerated deadline could somewhat increase their compliance costs under the proposed amendments.

We present the average pattern in abnormal returns[16] for such corporate action filings in Figure 1.[17] In order to align the trigger and filing dates across filings in the graph, we limit the filings in the figure to those that used the full ten-day filing window to file.[18]

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13 References to "days" in this memorandum mean calendar days, unless otherwise specified.

14 References to the term "filer" in this memorandum are inclusive of the beneficial owner before the person actually made a Schedule 13D filing.

15 References to a filer "crossing the five percent threshold" in this memorandum mean that the filer just completed acquiring beneficial ownership totaling more than five percent of a class of equity securities described in Section 13(d)(1) of the Exchange Act and Rule 13d-1(i). Based on staff analysis of EDGAR filings through programmatic text analysis, we estimate that about 2% of the potential transaction dates extracted from the text of corporate action filings between 2011 and 2021 occurred between the fifth day after the filer crosses the 5% threshold and the subsequent filing date. However, upon manual review, we found that many of these dates do not actually reflect transactions (*i.e.*, the dates were extracted because they seemed to relate to a number of shares and/or a price, but they reflect information other than specific transactions, as in the case of a summary of holdings as of the filing date that appears in the body of the filing).

16 Throughout this section (and Section 3.b. below), an issuer's "abnormal return" represents the difference between the issuer's market stock return and the Center for Research in Security Prices ("CRSP") value-weighted market index. We acknowledge that abnormal returns for a given issuer may be sensitive to the choice of benchmark and affected either positively or negatively by other market or issuer events during the horizon of the analysis, though the impact of such confounding effects may be reduced when looking at the average abnormal returns across many issuers. References in other sections to "abnormal returns" in the context of academic studies reflect the definitions of this term in each individual study (which may use different models to compute benchmark or "normal" returns for the purpose of isolating the "abnormal" portion of the returns).

17 These estimates are based on staff analysis of EDGAR filings through programmatic text analysis as well as data from the CRSP database.

18 Figure 1 reflects a total of 1,492 filings, in all of which filers used the full ten-day filing window to file. To arrive at this figure from the total 12,657 corporate action filings in Table 2, we retained only one filing in cases where multiple initial Schedule 13D filings were made on the same day for the same issuer. The figure is also limited to filings for which stock return data is available (generally, issuers listed on the NYSE, NYSE American, NASDAQ, and NYSE Arca exchanges). These restrictions led to a sample of 6,125 corporate action filings. The additional requirement that the filer used the full ten-day filing window to file resulted in the figure reflecting about 24% of this sample of 6,125 filings. If we instead consider the subset of the 6,125 corporate action filings that were filed after the proposed filing deadline but not after the current filing deadline (*i.e.*, the subsample that would be more likely to be affected by a change in the filing deadline), the figure reflects about 45% of this subsample of filings.

Figure 1. Cumulative abnormal return around filing date for "corporate action filings" (from Table 2) from 2011-2021 that were filed ten days after trigger date

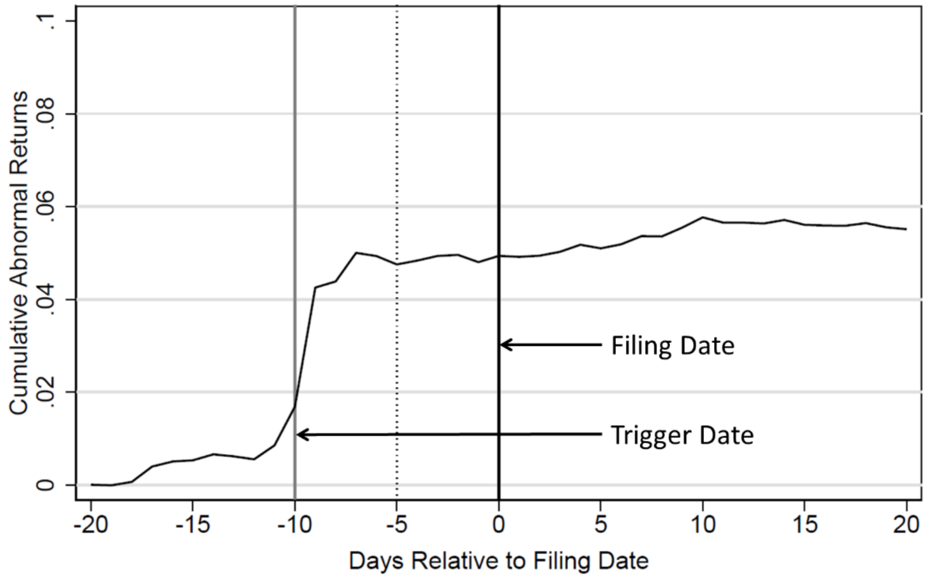

Figure 1 demonstrates that the vast majority of the market stock price reaction to corporate action filings occurred close to the day on which the filers crossed the five percent ownership threshold, triggering the requirement for a Schedule 13D filing. This pattern of abnormal returns suggests that the benefits of a shortened filing window may be limited with respect to corporate action filings. That is, the limited market reaction between the proposed deadline (day five after the trigger date[19]) and the day after the actual filing date implies that little market-moving information is revealed during this period. We did not conduct a systematic analysis to investigate potential explanations for this pattern of abnormal returns. However, it is possible that this pattern may reflect the existence of other disclosures about the associated events (outside of the Schedule 13D filing) that are made public on or close to the trigger date.[20] To the extent that the most value-critical information contained in the filing is already known to the market prior to the filing date (through legal means, such as other disclosures made outside the Schedule 13D), allocative efficiency is unlikely to materially improve with a shortened deadline, and it is unlikely that there are meaningful information asymmetries about the information in the filing between the proposed and current filing deadlines. Similarly, given the pattern of abnormal returns presented in Figure 1, selling shareholders are unlikely to be materially harmed in the days just prior to the actual filing date. Overall, we anticipate that there

[19] For purposes of this memorandum, the "trigger date" for an initial Schedule 13D filing is defined as in the note to Table 1 above.

[20] Staff reviewed a small number of individual filings and confirmed the existence of such disclosures, such as a Form 8-K disclosure on or within a day of the trigger date of a merger agreement or a bankruptcy, in the cases that were reviewed. However, we did not conduct more comprehensive or systematic analysis of such disclosures or other potential explanations for why the vast majority of the market stock price reaction for this group of filings occurred close to the trigger date and before the Schedule 13D was filed.

will be limited economic effects of the proposed filing date amendments with respect to the group of corporate action filings.

The focus of the analyses in Sections 2 and 3 of this memorandum is therefore the filings that we classify as "non-corporate-action filings," using the methodology described earlier in this section. The average pattern in abnormal returns for these filings is presented in Figure 2.[21] In order to align the trigger and filing dates across filings in the graph, we limit the filings in the figure to those that used the full ten-day filing window to file.[22]

Figure 2. Cumulative abnormal return around filing date for "non-corporate-action filings" (from Table 2) from 2011-2021 that were filed ten days after trigger date

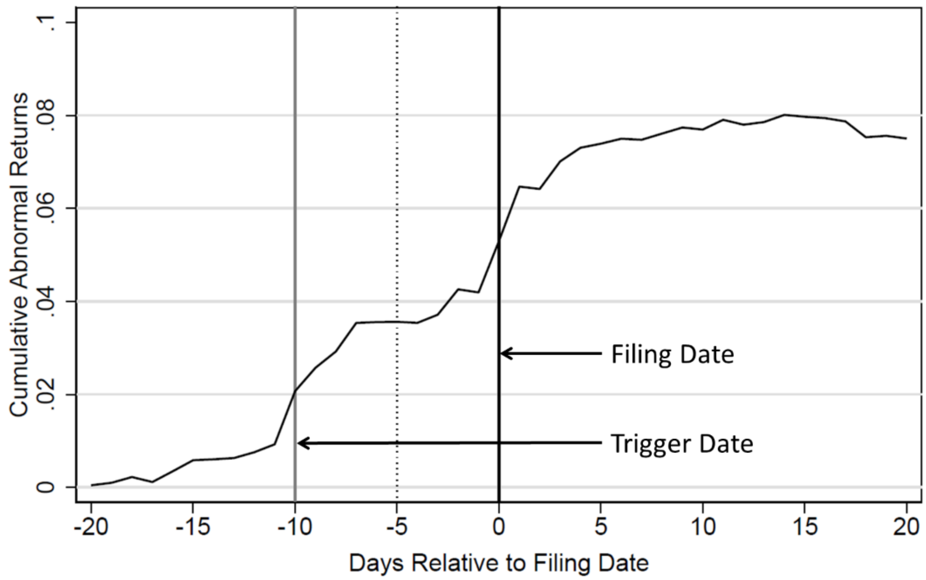

Figure 2 demonstrates that the pattern of abnormal returns for these non-corporate-action filings differs from the returns presented in Figure 1 in that there is a significant additional abnormal return after day five following the trigger date, indicating that there remains information that has not been fully incorporated into market prices as of that point. This pattern of returns suggests that there is greater potential for improvement in allocative efficiency and a

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21 These estimates are based on staff analysis of EDGAR filings through programmatic text analysis as well as data from the CRSP database.

22 Figure 2 reflects a total of 534 filings, in all of which filers used the full ten-day filing window to file. To arrive at this figure from the total 3,067 non-corporate-action filings in Table 2, we retained only one filing when multiple filings were made for the same issuer on the same day and limited the sample to filings for which stock return data is available, as in the case of Figure 1. These restrictions led to a sample of 2,553 non-corporate-action filings. The additional requirement that the filer used the full ten-day filing window to file results in the figure reflecting about 21% of this sample of 2,553 filings. If we instead consider the subset of the 2,553 non-corporate-action filings that were filed after the proposed filing deadline but not after the current filing deadline (*i.e.*, the subsample that would be more likely to be affected by a change in the filing deadline), the figure reflects about 47% of this subsample of filings. Data on the abnormal returns between day five after the trigger date to the actual filing date for additional subsets of non-corporate-action filings is presented in Table 5 below.

reduction in information asymmetry under a shortened deadline with respect to these non-corporate-action filings. Also, these filers may be more likely to be impacted under the proposed amendments than those associated with corporate action filings, as any open-market accumulations of shares between the proposed deadline and their actual filing date (*i.e.*, in many cases, on days six through ten following the trigger date) may become more costly under the proposed amendments.[23]

c. Schedule 13G filings

During calendar year 2021, the Commission received a total of 24,874 Schedule 13G filings, including 8,676 initial filings and 16,198 amendments.[24] Overall, the initial filings and amendments involved 3,677 unique lead filers.[25] Additional details specific to the initial filings, including their breakdown and characteristics by filer type, are presented in Table 3.[26]

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23 See Section 2.b. for further discussion of which filers are most likely to be affected and how they might react to a shortened filing deadline.

24 These estimates are based on staff analysis of EDGAR filings. The Proposing Release reported that the Commission received 44,059 Schedule 13G filings (12,838 initial filings and 31,221 amendments) in calendar year 2020. Based on further staff review of these reported statistics, we believe they included duplicate records, and that the actual number of unique Schedule 13G filings received in 2020 was 22,080 filings (6,436 initial filings and 15,644 amendments), which are similar to the counts provided for 2021 above.

25 This estimate is based on staff analysis of EDGAR filings. "Lead filer" indicates the filer that submits a filing to the Commission, though the same filing may include information about additional co-filers.

26 These estimates are based on staff analysis of EDGAR filings. Information about the days to file and accumulation are based on a subset of filings (about 93% of the filings) for which we were able to extract the required information. The Proposing Release reported that, at that time, it was impracticable to produce statistics on the median days to file for different types of filers. We have since structured the underlying data into a more readily analyzable format and have included these statistics in the table. See *supra* note 5 for details on the extraction of percentage beneficial ownership data from filings. The terms "Qualified Institutional Investor," "Exempt Investor," and "Passive Investor" have the meanings set forth in the Proposing Release.

Table 3
Initial Schedule 13G Filings in 2021 by Filer Type

	Qualified Institutional Investor	**Exempt Investor**	**Passive Investor**	**Total**
Number of unique lead filers	541	937	1,122	2,159
% filers also filing Form 13F	82%	21%	34%	37%
Number of initial filings	4,027	1,571	3,846	8,676
Median calendar days from trigger date* to filing date	41	41	10	25
Median ownership reported in filing	7%	8%	7%	7%

* For Passive Investors, the trigger date is the date on which the investor has acquired beneficial ownership of more than 5% of a class of equity securities described in Rule 13d-1(i). Qualified Institutional Investors ("QIIs") and Exempt Investors each have different initial Schedule 13G filing trigger dates and filing deadlines. See Section II.A.3.a. of the Proposing Release for more detail.

The total numbers of unique filers and filings in Table 3 are less than the sum across categories because the same filer may fall into multiple categories. Table 3 demonstrates that initial Schedule 13G filings are somewhat concentrated among QIIs, who represent about one quarter of the filers but are responsible for almost half of the filings.[27] Per the second row of the table, QIIs are also more likely to report their ownership of securities on a quarterly basis on Form 13F, with 82% of QIIs filing a Form 13F (compared to 37% for all initial Schedule 13G filers).[28]

d. Market Trends

The Commission noted in the Proposing Release that there have been significant changes in the technological, market, and regulatory environment since the enactment of the Williams Act. Several commenters suggested that the economic analysis in the Proposing Release could have been enhanced by considering additional evidence on changes over time.[29] We note that communication is easier and faster, and the introduction of electronic trading, advances in order-splitting and other trade execution optimization techniques as well as the rise of dark pools may

[27] Per the first row of the table, QIIs represent 541 out of 2,159 unique lead filers, or 25% (541/2,159) of the unique lead filers. Per the third row of the table, QIIs are responsible for 4,027 out of 8,676 initial filings, or 46% (4,027/8,676) of the initial filings.

[28] Institutional investment managers that use the United States mail (or other means or instrumentality of interstate commerce) in the course of their business and that exercise investment discretion over $100 million or more in Section 13(f) securities must file Form 13F.

[29] *See, e.g.*, Craig Lewis, *Review of the Economic Analysis for Proposed Rule Amendments to Modernize Beneficial Ownership Reporting*, Exhibit B to letter from Elliott Investment Management (Apr. 11, 2022), *available at* https://www.sec.gov/comments/s7-06-22/s70622-279518.pdf ("Lewis Study (exhibit to letter from Elliott)") (requesting "evidence that efficiency enhancements have increased the pace at which investors build beneficial ownership positions").

facilitate accumulating a large equity stake quickly. On the other hand, we also recognize that accumulating significant ownership could be more difficult in the face of modern algorithmic and high-frequency trading as well as more sophisticated surveillance of trading and ownership by other traders and by issuers.[30]

There is also research that addresses whether other developments may have changed the significance of lower ownership stakes over time. For example, some have stated that the increase in ownership by institutional investors, the rise of proxy advisory services, and regulatory and legal developments regarding shareholder communications may have made it easier to influence other shareholders, and thereby the issuer, with a lower ownership stake.[31] On the other hand, others have stated that the increased presence of institutional investors may make it more difficult to exert control, without the support of these investors, with a low ownership stake.[32]

According to at least one study, there has been no material change in the average level of beneficial ownership reported in Schedule 13D filings between 1994, the advent of electronic filing, and 2007.[33] Our own analysis of how the statistics reported in this study compare to beneficial ownership reported in more recent initial Schedule 13D filings, from 2011 to 2021, supports the observation that the average level of beneficial ownership reported in Schedule 13D filings has not meaningfully changed in recent decades.[34]

While it is uncertain whether a lower ownership stake has become more or less consequential over time, researchers have noted that today's market for corporate control, in contrast to that at the time of the enactment of the Williams Act and the Commission's original adoption of the related rules, does prominently feature investors who seek to influence issuers' governance through the accumulation of strict minority equity stakes instead of full control.[35]

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30 Researchers have also found that the increased use of low-threshold poison pills within the last decade or two could increase the difficulty of accumulating an equity stake beyond a certain size. *See, e.g.*, Ofer Eldar et al., *The Rise of Anti-Activist Poison Pills* (Working Paper, Jan. 2023), *available at* https://ssrn.com/abstract=4198367; Nicole Boyson & Pegaret Pichler, *Hostile Resistance to Hedge Fund Activism*, 32 REV. FIN. STUD. 771 (2019) ("Boyson & Pichler 2019 Study").

31 *See, e.g.*, John C. Coffee, Jr. & Darius Palia, *The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance*, 41 J. CORP. L. 545, 553-71 (2016).

32 *See, e.g.*, Ian Appel et al., *Standing on the Shoulders of Giants: The Effect of Passive Investors on Activism*, 32 REV. FIN. STUD. 2720 (2019) ("Appel et al. 2019 Study").

33 *See, e.g.*, Lucian Bebchuk et al., *Pre-Disclosure Accumulations by Activist Investors: Evidence and Policy*, 39 J. CORP. L. 1, 14-17 (2013) (based on data from 1994 through 2007).

34 We do not have readily-accessible data that would allow us to analyze beneficial ownership reported in years prior to 1994.

35 *See, e.g.*, Alon Brav et al., *Governance by Persuasion: Hedge Fund Activism and Market-Based Shareholder Influence*, OXFORD RSCH. ENCYCLOPEDIA OF ECON. AND FIN. (2022) ("Brav et al. 2022 Study").

2. Potential Effects Associated with Activist Campaigns

In the Proposing Release, the Commission discussed a number of potential economic effects from the proposed amendments. A number of commenters suggested that the economic analysis in the Proposing Release could have been enhanced by further consideration of existing studies on activist campaigns and quantification of the potential effects of the proposed amendments on activist campaigns.[36] In this section, we provide additional analysis regarding existing research and the characteristics of activist campaigns under the current filing deadlines, with a focus on the proposed change in the deadline for initial Schedule 13D filings and campaigns that might be impacted by that proposed change, including their potential implications for shareholder value. However, we note that this analysis reflects one aspect of the overall potential impact of the proposed amendments, and that other effects of the proposed amendments may not be readily quantified. Further, we are unable to ascertain the likelihood of the potential impacts on activism discussed in this section because we cannot predict with a reasonable degree of certainty how activists and other market participants would respond to the proposed changes.

a. Academic Research Regarding Effects of Activist Campaigns

There is a large body of literature finding that activist campaigns are, on average, associated with an economically significant increase in shareholder value around the filing or other announcement date.[37] Researchers have also found that the degree of impact that these

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36 *See, e.g.*, letter from Prof. Afra Afsharipour et al. (Apr. 11, 2022), *available at* https://www.sec.gov/comments/s7-06-22/s70622-20123313-279608.pdf (stating that "there are important segments of the literature that are not cited, as well as questions about the precise quantification of potential costs that shortening the filing deadline to five days would impose" and that "the Commission in fact has data regarding accumulation levels, liquidity, and acquisition plans with respect to past interventions by activists" that could be used for this purpose).

37 Measurement windows in most studies range from five to 40 days around the announcement date, with many also considering longer horizons to address concerns about a potential reversal of the returns. *See, e.g.*, Lucian Bebchuk et al., *The Long-Term Effects of Hedge Fund Activism*, 115 COLUM. L. REV. 1085 (2015) (estimating an announcement return of about 6% to initial Schedule 13D filings by activist hedge funds from 1994 through 2007, with, on average, no reversal in returns over the following five years); Simi Kedia et al., *Institutional Investors and Hedge Fund Activism*, 10 REV. CORP. FIN. STUD. 1 (2021) ("Kedia et al. 2021 Study") (demonstrating, in Table IA2 of the Internet Appendix, no reversal over five years of the positive one-year buy-and-hold returns for different subsamples of initial Schedule 13D filings by activist hedge funds from 2004 through 2012, based on a variety of models of benchmark returns); Boyson & Pichler 2019 Study (estimating a buy-and-hold return of about 12% over a holding period averaging 2.7 years to campaigns by hedge fund activists from 2001 through 2012); Martijn Cremers et al., *Hedge Fund Activism and Long-Term Firm Value* (Working Paper, Dec. 13, 2018), *available at* https://ssrn.com/abstract=2693231 ("Cremers et al. 2018 Study") (estimating a return of about 6% around the start of activist hedge fund campaigns from 1995 through 2011, with, on average, no reversal in returns over the following five years); Edward Swanson et al., *Are All Activists Created Equal? The Effect of Interventions by Hedge Funds and Other Private Activists on Long-Term Shareholder Value*, 72 J. CORP. FIN. 102144 (2022) ("Swanson et al. 2022 Study") (estimating returns of 5% to initial Schedule 13D filings in 1994 through 2014, with, on average, no reversal in returns over the following three years); Ed deHaan et al., *Long-Term Economic Consequences of Hedge Fund Activist Interventions*, 24 REV. ACC. STUD. 536 (2019) ("deHaan et al. 2019 Study") (estimating, on an equally-weighted basis, returns of 5% to initial Schedule 13D filings by activist hedge funds from 1994 through 2011, with, on average, no reversal in

activities have on shareholder value varies significantly with an issuer's market capitalization, with smaller-cap issuers experiencing significantly larger percentage returns around the disclosure of an activist campaign than larger-cap issuers.[38] Researchers have debated whether the activists' actions are responsible for any increase in value. Some researchers argue that any stock price reaction may instead represent activists' ability to select issuers that are likely to be taken over or to recover from underperformance for other reasons.[39] However, other academic research indicates that activists' actions are responsible for any increase in value.[40]

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returns over the following two years); Brav et al. 2022 Study (estimating an announcement return of about 5% to blockholdings by hedge fund activists from 1994 to 2018, with, on average, no reversal in returns over the following three years). While much of the academic research has focused on blockholdings by activist hedge funds, other studies have found similar stock returns related to Schedule 13D filings by other types of investors. *See, e.g.*, Ulf von Lilienfeld-Toal & Jan Schnitzler, *The Anatomy of Block Accumulations by Activist Shareholders*, 62 J. CORP. FIN. 101620 (2020) ("Lilienfeld-Toal & Schnitzler 2020 Study") (estimating returns of 7% to 8% to initial Schedule 13D filings by external blockholders in 2001 through 2016, irrespective of filer type); Swanson et al. 2022 Study (estimating returns of 5% to initial Schedule 13D filings in 1994 through 2014, with no statistically significant difference in the returns to hedge funds versus other private activists).

38 *See, e.g.*, deHaan et al. 2019 Study (finding that the average long-term returns to hedge fund activism on an equally-weighted basis are driven by the smallest 20% of targets by market capitalization); Brav et al. 2022 Study (documenting a roughly 2-3% announcement return to the largest two terciles of targets of activist hedge funds, compared to a roughly 9% announcement return to the smallest tercile of targets, based on market capitalization). We note that a smaller percentage return for an issuer with a larger market capitalization may imply a larger dollar impact on shareholder value than that associated with a larger percentage return for a smaller issuer.

39 *See, e.g.*, Cremers et al. 2018 Study; deHaan et al. 2019 Study; Yvan Allaire & François Dauphin, *The Game of 'Activist' Hedge Funds: Cui Bono?*, 31 INT. J. DISCL. GOV. 279 (2016).

40 *See, e.g.*, Brav et al. 2022 Study (finding that the outperformance of issuers targeted by activists persists even when benchmarked against a variety of matched control samples, including a control sample of non-targeted issuers that are closely matched to the targeted issuers based on their condition at the time of targeting as well as changes in performance prior to that time); Rui Albuquerque et al., *Value Creation in Shareholder Activism*, 145 J. FIN. ECON. 153 (2022) (estimating that only 13% of the total returns associated with activist campaigns could be attributed to stock-picking ability as opposed to the campaigns themselves); Robin Greenwood & Michael Schor, *Investor Activism and Takeovers*, 92 J. FIN. ECON. 362 (2009) (finding that returns associated with Schedule 13D filings are driven by activists' success at getting target firms acquired, and not just selecting targets that are likely to get acquired); Nicole Boyson et al., *Activism Mergers*, 126 J. FIN. ECON. 54 (2017) (finding that even Schedule 13D targets with failed acquisition bids experience improvements in operating performance, financial policy, and positive long-term abnormal returns); Swanson et al. 2022 Study (finding significant abnormal returns to the subsets of Schedule 13D filings presenting a variety of non-sale demands, such as demands associated with corporate strategy, and not just for those presenting demands for a sale of all, or part, of the company). Various studies have also associated activist blockholdings with operational improvements. *See, e.g.*, Nicole M. Boyson & Robert Mooradian, *Corporate Governance and Hedge Fund Activism*, 14 REV. DERIVATIVES RES. (2011) (finding an increase in return on assets for issuers that are the subject of hedge fund activist campaigns, relative to similar non-targeted issuers); Alon Brav et al., *The Real Effects of Hedge Fund Activism: Productivity, Asset Allocation, and Labor Outcomes*, 28 REV. FIN. STUD. 2723 (2015) ("Brav et al. 2015 Study") (finding an increase in productivity at the plant level for issuers that are the subject of hedge fund activist campaigns, but not for similar plants at non-targeted issuers); Nickolay Gantchev et al., *Activism and Empire Building*, 138 J. FIN. ECON. 526 (2020) (finding that issuers that are the subject of

There is less research, and there are more mixed findings, with respect to the effect of activist campaigns on investors other than shareholders of the targeted issuers. On the one hand, some research has associated activist campaigns with a positive effect on the operational and financial performance as well as shareholder value of issuers other than the targeted issuers, based on the perceived threat of a potential activist campaign targeting these other issuers.[41] On the other hand, other research has found that issuers that are the suppliers and close competitors of the targeted issuers, in certain circumstances, experience decreases in shareholder value around an activist campaign, which researchers have associated with cost-cutting and increased efficiency at the target issuer.[42] Similarly, other literature has found that activist campaigns have a mixed impact on debtholders of the targeted issuer, depending on the nature of the campaign's goals and how they impact the performance, but also the level of financial risk, of the issuer.[43] Thus, any reduction in activism may be accompanied by additional positive or negative effects on other investors.

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hedge fund activist campaigns reduce value-destructive acquisition activity relative to similar, non-targeted issuers).

41 *See, e.g.*, Nikolay Gantchev et al., *Governance Under the Gun: Spillover Effects of Hedge Fund Activism*, 23 REV. FIN. 1031 (2019) (finding that an interquartile increase in the threat of an activist campaign is associated with operational and financial improvements and a 2.4% positive stock return at the issuers with a high perceived threat of being targeted).

42 *See, e.g.*, Hadiye Aslan, *Shareholders Versus Stakeholders in Investor Activism: Value for Whom?*, 60 J. CORP. FIN. 101548 (2020) (finding reduced profit margins and stock prices reflecting a negative announcement return of about -1.5% for the suppliers of an issuer targeted by an activist hedge fund relative to suppliers of other issuers, and finding that the economic effects on suppliers are stronger for the suppliers of target firms with high cost efficiency or operating margin improvements after the activist campaign); Hadiye Aslan & Praveen Kumar, *The Product Market Effects of Hedge Fund Activism*, 119 J. FIN. ECON. 226 (2016) (finding a negative announcement return for those close competitors of an issuer targeted by an activist hedge fund that do not themselves face the threat of activist hedge fund campaign, while those close competitors that do face such a threat experience positive announcement returns; and finding that the impact on competing firm performance is stronger for targets with, among other things, a greater improvement in productivity).

43 *See, e.g.*, April Klein & Emanuel Zur, *The Impact of Hedge Fund Activism on the Target Firm's Existing Bondholders*, 24 REV. FIN. STUD. 1735 (2011) (estimating that bonds of targeted issuers experience, on average, a negative announcement return of about -4% to activist hedge fund campaigns); Hadiye Aslan & Hilda Maraachlian, *Wealth Effects of Hedge Fund Activism* (Working Paper, 2018), *available at* https://ssrn.com/abstract=993170 (estimating that bonds of targeted issuers experience, on average, a positive announcement return of about 2% to activist hedge fund campaigns, but with variation based on the type of campaign: bondholders benefit the most for those with governance-related goals, while those calling for restructuring the issuer lead to bondholder losses); Jayanthi Sunder et al., *Debtholder Responses to Shareholder Activism: Evidence from Hedge Fund Interventions*, 27 REV. FIN. STUD. 3318 (2014) (examining changes in bank loan spreads upon activist hedge fund campaigns, and finding that spreads increase in response to merger-related or restructuring campaigns but decrease in response to those that seek to address governance-related issues).

b. Quantitative Analysis of Potential Effects of the Proposed Shortened Initial Schedule 13D Filing Deadline on Activist Campaigns

An initial Schedule 13D is currently required to be filed by the tenth calendar day after a person crosses the five percent threshold. For persons complying with this reporting deadline, the time elapsed between the reporting obligation being triggered and the actual filing date currently ranges from less than a full day to ten (or slightly more than ten)[44] calendar days. While it is difficult to predict how filers may change their behavior upon a potential shortening of the filing deadline to five calendar days, we can use data extracted from Schedule 13D filings to examine filers' current patterns of share purchases and provide some insight into the percentage of instances that have trading between the proposed deadline and their actual filing date and thus might be impacted by such a change.[45] We extracted such data from the Schedule 13D filings from 2011 through 2021 reflected in the first row of Table 2.

As discussed in Section 1.b. above, our analysis below focuses on those 3,067 Schedule 13D filings that we classify as non-corporate-action filings (as opposed to corporate action filings),[46] which represent about 20 percent of initial Schedule 13D filings (per the first row of Table 2). We further refined the sample of filings to exclude late filers and filers with no beneficial ownership reported as of the filing date and to adjust for multiple filings on the same date.[47] Our refinements resulted in a sample size of 2,371 non-corporate-action filings, which we use for Figures 3, 4a, and 4b, and Table 4 below. Figure 3 displays the percentage of non-

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44 See *supra* note 12 which explains the circumstances under which a filing received after the tenth day is permissible.

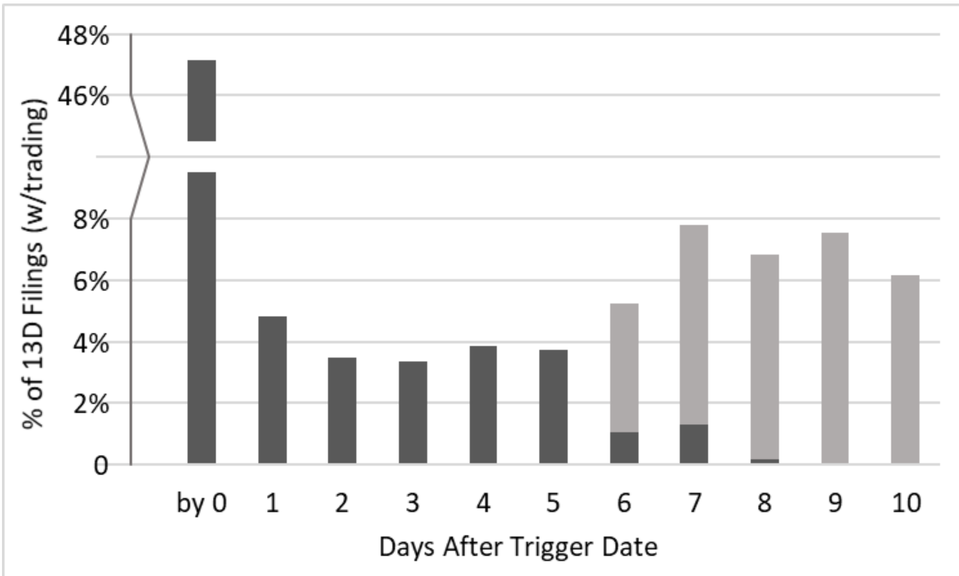
45 We also considered investigating the effects of alternate deadlines for reporting the acquisition of meaningful ownership stakes in other countries, as suggested by several commenters. *See*, *e.g.*, letter from Wachtell, Lipton, Rosen & Katz (Oct. 4, 2022), *available at* https://www.sec.gov/comments/s7-06-22/s70622-20145487-310717.pdf. However, we concluded that significant differences in rules and practices in other countries as compared to the United States limit our ability to draw direct inferences from the experience of these other countries. Further, we found that confounding events would limit our ability to draw conclusions about the effects of rule changes in these other countries. For example, revisions to Japan's substantial shareholding reporting rules took effect in 2006 and 2007, coincident with the rise of poison pills and the emergence of bear market conditions in Japan. Thus, while activist engagements in Japan declined after 2007, it is difficult to identify the specific role any one of these factors played in this decline. *See, e.g.*, Yasushi Hamao & Pedro Matos, *U.S.-Style Investor Activism in Japan: The First Ten Years?*, 48 J. JPN. INT. ECON. 29 (2018).

46 As discussed in Section 1.b. above, we believe that a change in the filing deadline would not significantly impact corporate action filings because we found that these filings typically reflect one or two transactions that involve off-market transfers of share ownership, with terms likely agreed upon in advance, and include very few transfers that seem to occur following the fifth day after the filer crosses the five percent threshold.

47 We exclude late filers from this analysis because it is difficult to predict how filers that are not in compliance with the current filing deadline would react to a change in this deadline. See *supra* note 12 regarding when a filing is considered "timely" under current rules. We also exclude filers with no beneficial ownership reported as of the filing date. When multiple filings were made on the same date and pertain to the same issuer, only the filing reporting the largest stake is included in the analysis.

corporate-action filings for which filers completed acquiring the total beneficial ownership reported in their initial Schedule 13D filing by the specified day after the trigger date.[48]

Figure 3. Percentage of non-corporate-action filings from 2011-2021 for which filers complete share accumulation as of a given day by days after trigger date



The dark grey bars in Figure 3 represent filers that completed acquiring their total reported stake by the proposed deadline, *i.e.*, day five after their trigger date or, if day five falls on a weekend or holiday, by the next business day.[49] Summing the dark grey bars of the figure, we find that about two-thirds of the filers completed acquiring their reported stake by the proposed deadline. Shortening the filing deadline as proposed therefore likely would not impact such accumulation patterns, even if these filers currently file the Schedule 13D after the proposed deadline. The remaining approximately one-third of filers (represented in the light grey bars) continued accumulating shares after the proposed deadline.

We next explore the significance of additional accumulations of shares after the proposed deadline. Figures 4a and 4b display, for the same sample of filings as in Figure 3, the percentage of filers that complete acquiring 90 percent and 75 percent, respectively, of their stake on the indicated day after the trigger date.[50]

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48 These estimates are based on staff analysis of EDGAR filings through programmatic text analysis.

49 *See supra* note 12.

50 These estimates are based on staff analysis of EDGAR filings through programmatic text analysis. As discussed above, we use the maximum ownership separately reported in a filing as our measure of the total reported ownership, and, in some cases (approximately 7% of all of the Schedule 13D filings in Table 2 above), this approach may understate the aggregate ownership of a group of co-filers. *See supra* note 5. Because this measure of total reported ownership is used as the denominator to determine the percentage accumulation by a given day in these figures and in Table 4 below, our estimate of the percentage of reported ownership that is accumulated after the fifth day following the trigger date may be overestimated

Figure 4a. Percentage of non-corporate-action filings from 2011-2021 for which filers achieve 90% of their total reported share accumulation as of a given day by days after trigger date

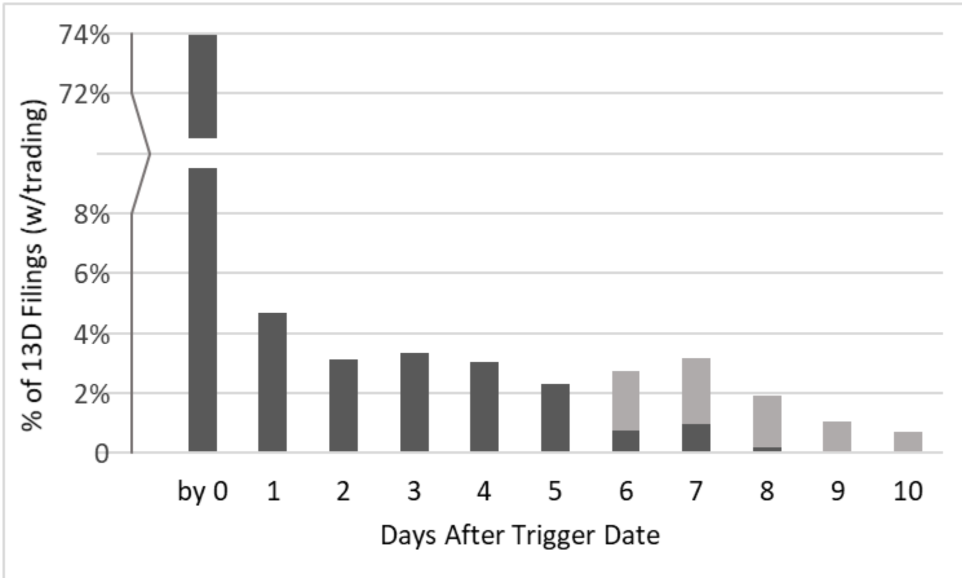
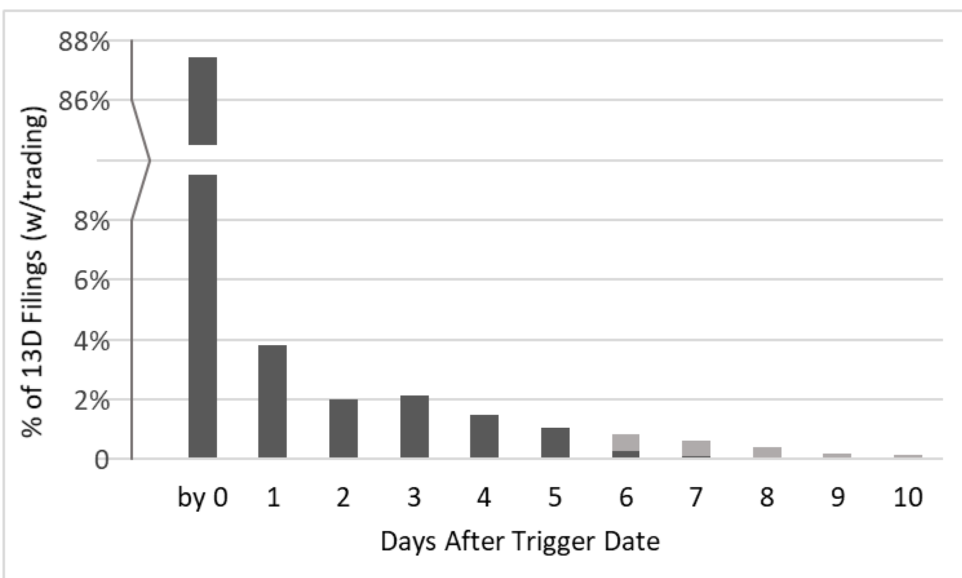


Figure 4b. Percentage of non-corporate-action filings from 2011-2021 for which filers achieve 75% of their total reported share accumulation as of a given day by days after trigger date



in some cases. For example, we manually reviewed all filings categorized in the light grey bars of Figure 4b (those with 25% or more of their reported ownership accumulated after the proposed deadline) and determined that 3 out of 42 filings in the light grey bars, or 7% of these filings, would not have been categorized in this group if our algorithm to extract total reported ownership from the filing was as precise as our manual review of the documents.

The dark grey bars in Figures 4a and 4b represent filers that completed acquiring 90 percent or 75 percent, respectively, of their reported stake by the proposed deadline. Summing the dark grey bars of Figure 4a, we find that about 92 percent of the filers completed acquiring 90 percent of their reported stake by the proposed deadline, while the remaining 8 percent of filers (represented in the light grey bars) continued to accumulate shares constituting ten percent or more of their reported stake after the proposed deadline. Similarly, summing the dark grey bars of Figure 4b, we find that about 98 percent of the filers completed acquiring 75 percent of their reported stake by the proposed deadline, while the remaining 2 percent of filers continued to accumulate shares representing 25 percent or more of their reported stake after that date. The filers in the light grey bars of Figures 4a and 4b may be more likely than those accumulating less (or none) of their stake in the latter part of the filing window to be meaningfully impacted by a shortening of the filing window to five calendar days.

Table 4 provides information about the characteristics of current campaigns delineated by their degree of accumulation of shares by the proposed deadline, which may provide some insights into potential effects of a shortened filing deadline environment.[51] The sample of filings included in the table is the same as that underlying Figures 3, 4a, and 4b.

[51] These estimates are based on staff analysis of EDGAR filings through programmatic text analysis as well as data from the Audit Analytics, CRSP, and Compustat databases. Estimates of average issuer characteristics (Rows 2 through 5) and campaign-level profit and value measures (Rows 9 through 11) are based on the campaigns for which the required data was available. While data availability varies by row and column of the table, every statistic in the table reflects data for at least 76% of the respective sample of filings. The Amihud illiquidity ratio (in Row 4) is computed as in Nickolay Gantchev & Chotibhak Jotikasthira, *Institutional Trading and Hedge Fund Activism*, 64 MGMT. SCI. 2930 (2018) ("Gantchev & Jotikasthira 2018 Study"). See *supra* note 5 regarding how we identify the "Prominent Activists" category (for the purpose of computing Row 6). A filer's unrealized gains on the reported equity stake (used to compute the percentages in Row 9) are based on information on their actual purchases and purchase prices for the 60 days prior to the filing as reported in the Schedule 13D filing, as well as the remainder of ownership acquired before those 60 days, which is assumed to be acquired at the average purchase price reported in the Schedule 13D filing excluding any purchases after the trigger date. Unrealized gains are estimated by comparing these purchase prices to the share price the day after the filing from the CRSP database. Abnormal returns (in Row 10) are computed as the difference between an issuer's stock market return and the CRSP value-weighted market index, and are presented for the period extending from 20 business days prior to 20 business days after the filing date. For the aggregate estimate of the increase in shareholder value (in Row 12), the estimated average increase in shareholder value per campaign (in Row 11) is used as a proxy for the shareholder value impact of campaigns for which the data required to produce this estimate was unavailable (about 12% to 21% of campaigns in any given category). We may slightly overestimate the number of campaigns falling in Columns 3 and 4 due to the algorithm by which total reported ownership is extracted from filings. *See supra* note 50. As discussed above, we reviewed all of the filings categorized in Column 4 (*i.e.*, in the light grey bars of Figure 4b) manually and determined that 7% of the filings in this column would not have been categorized in this group if our algorithm to extract total reported ownership from the filing was as precise as our manual review of the documents. However, because the average increase in shareholder value for these filings was relatively low, excluding these filings from Column 4 would not have a meaningful impact on our estimate of the aggregate increase in shareholder value for this category.

Table 4
Campaign Characteristics by Degree of Accumulation by Proposed Filing Deadline, Annualized (2011-2021)

	Percent of Stake Accumulated by Proposed Deadline			
	(1) **100%** **(full stake)**	**(2)** **<100%**	**(3)** **<90%** **subset of (2)**	**(4)** **<75%** **subset of (3)**
(1) Average number of campaigns / year	149	67	17	4
Targeted Issuer Characteristics:				
(2) Average issuer size (market cap.)	$930M	$1.2B	$1.2B	$1.7B
(3) Average issuer liquidity (turnover)*	1.2%	1.3%	1.4%	1.6%
(4) Average issuer illiquidity (Amihud illiquidity ratio)**	0.13	0.11	0.10	0.08
(5) Percent issuers in S&P 1500	9.4%	13.2%	16.2%	9.8%
Filer/Campaign Characteristics:				
(6) Percent by a Prominent Activist	24.6%	37.5%	40.9%	38.1%
(7) Average ownership reported in filing	9.5%	7.0%	8.6%	9.6%
(8) Average percentage of reported ownership stake accumulated after proposed deadline	0%	7.9%	20.6%	38.5%
(9) Average percentage of filer's unrealized gains on reported equity stake, as of day after filing date, attributable to shares accumulated after proposed deadline***	0%	6.8%	15.0%	21.0%
Campaign Value Implications:				
(10) Average return around filing date (cumulative abnormal return, day -20 to 20)	4.7%	9.6%	14.0%	12.4%
(11) Average increase in shareholder value per campaign	$35M	$128M	$143M	$213M
(12) Aggregate increase in shareholder value for this category	$5.3B/yr	$8.5B/yr	$2.4B/yr	$810M/yr

* Turnover is the average daily trading volume as a percentage of the issuer's shares outstanding, computed over the six-month period before the trigger date.

**The Amihud illiquidity ratio is intended to capture the stock price impact of trading, and is computed over the six-month period before the trigger date. See note 51 for more details.

***Unrealized gains estimated for this purpose reflect estimated gains only on the equity stake reported in the Schedule 13D filing (*i.e.*, excludes unrealized gains from any cash-settled derivative instruments, including swaps, to the extent such instruments did not result in beneficial ownership) and are computed as of the day after the filing (*i.e.*, excludes any impact of changes in stock price or additional stock purchases thereafter). See note 51 for more details.

Column 1 of Table 4 (representing the same filings as those in the dark grey bars of Figure 3) presents information about campaigns in which the filer completed accumulating their shares by the proposed deadline (five calendar days after crossing the 5% threshold) and are thus the least likely to be affected by the proposed change. Column 2 (representing the same filings as those in the light grey bars of Figure 3) presents information about the remainder of the campaigns, in which the filer continued accumulating shares after the proposed deadline. Columns 3 and 4 (representing the same filings as those in the light grey bars of Figure 4a and 4b respectively) present the subsets of the campaigns in Column 2 in which the filer had accumulated less than 90 or 75 percent, respectively, of their stake by the proposed deadline (*i.e.*, 10 percent or 25 percent, respectively, or more of their stake was accumulated between the proposed deadline and their actual filing date).

We are unable to predict how, if at all, a particular filer may change its behavior in response to a shortened filing deadline. If we assume, for example, that the average of four filers a year that accumulate 25 percent or more of their stake after day five (Column 4) would completely abandon such campaigns due to a shortened filing deadline, we estimate that the associated aggregate net[52] increase in shareholder value of about $810 million per year (Row 12) may be forgone.[53] As the previous section discusses, shareholders of non-targeted companies and debtholders of the target may also face associated benefits or costs. However, it is also possible that, instead of abandoning these campaigns, the filers could adapt to the proposed filing deadline by, for example, reducing their total economic stake, adding to their stake after the filing date, or accumulating shares more quickly during the proposed new filing window. Whether or not a filer adapts to the proposed filing deadline may be based on their assessment of their own costs and benefits of adapting, and the overall frequency with which and ways in which filers adapt are likely to impact the overall costs and benefits of the shortened deadline. For example, while certain benefits of the shortened deadline would be preserved in cases where the filer adapts by simply proceeding with a smaller stake, academic studies have found that lower levels of activist ownership are associated with smaller increases in shareholder value.[54]

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52 Because these estimates are based on the stock price responses to filings, the estimated effect should be net of any anticipated costs to the issuer (and thus its shareholders) associated with the campaign (such as the expenditure of management time and other issuer resources as well as the engagement of legal and financial advisors in order to engage with the filer or respond to the campaign).

53 *See* Column 4, Row 12 of Table 4. We acknowledge that this estimate and the other estimates in Row 12 of Table 4 are approximate and may be sensitive to the methodology for estimating abnormal returns. *See supra* note 16. A rough estimate for this subsample can also be obtained using other statistics in column four: by multiplying the average announcement return (12.4%, per row ten) times the average market capitalization in this subsample ($1.7B, per row two) times the 4 campaigns per year in this subsample, for an estimate of about $840M. However, because issuer size and announcement return are negatively correlated, our presented estimate (which is based on the issuer size and announcement return of each individual campaign in this subsample) is somewhat lower and more precise.

54 *See, e.g.*, Lilienfeld-Toal & Schnitzler 2020 Study (finding that the percentage of ownership reported in Schedule 13D is a statistically significant predictor of the announcement returns to the filing).

3. Potential Effects Associated with Certain Selling Shareholders

A number of commenters suggested that the economic analysis in the Proposing Release could have been enhanced by a quantitative analysis of the potential harms to selling shareholders under the current Schedule 13D filing deadline.[55] Accordingly, in this section, we provide a quantitative analysis of the potential harms, under current rules, to shareholders selling to opportunistic traders who are not the filer[56] but who become aware of a potential campaign before the filer's ownership and intentions are made public on Schedule 13D.[57] We focus on harms that may accrue between the proposed filing deadline and the current filing deadline. This quantitative analysis of the current harms provides insight into one aspect of the potential impact of the proposed amendments, as these harms may be avoided under the proposed filing deadline. However, we cannot predict with a reasonable degree of certainty how activists and other market participants are likely to respond to the proposed changes and thus to predict how likely it is for these harms to be avoided.

As in the case of the analysis in Section 2 above, we note that this analysis reflects one aspect of the overall impact of the proposed amendments, and that other effects of the proposed amendments may not be readily quantified.

a. Academic Research Regarding Potentially Informed Trading Prior to Schedule 13D Filing Date

Researchers have presented data and analysis suggesting that potentially informed, opportunistic traders may buy stock of the target issuer just prior to Schedule 13D filings. For example, studies have identified unusual EDGAR search activity during the ten days prior to a Schedule 13D filing[58] and abnormally high trading volume on the same day the filer crosses the

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55 *See, e.g.*, Lewis Study (exhibit to letter from Elliott) (stating that the Commission "could have estimated the benefits to selling shareholders" and presenting one potential approach for such an analysis).

56 A number of commenters suggested that it would be inappropriate to construe trading losses (or the failure to benefit from future stock appreciation) in transactions with the filer as a harm to the selling shareholders. *See, e.g.*, letter from Jeffrey N. Gordon, Columbia Law School (Jun. 20, 2022), *available at* https://www.sec.gov/comments/s7-06-22/s70622-20132543-303070.pdf (stating that "insofar as the information asymmetry arises from transactions with the activist, this ought not be targeted by the Commission … [it] is bound up with an economic reward to activism, without which activism will cease").

57 We acknowledge, however, that some of these potentially informed, opportunistic traders may be associated with shareholder value creation to the extent they may represent the entry of additional "activism-friendly" shareholders, which academic researchers have associated with greater returns to activism. *See, e.g.*, Kedia et al. 2021 Study (finding that a one-standard-deviation increase in the pre-existing "activism-friendly" ownership is associated with an increase in the 36-month buy-and-hold returns of 7.8% to 15.5%); Yu Ting Forester Wong, *Wolves at the Door: A Closer Look at Hedge Fund Activism*, 66 MGMT. SCI. 2347 (2020) ("Wong 2020 Study") (finding that a proxy for a dispersed group of investors aligned with the activist buying shares before the Schedule 13D filing, measured based on abnormal trading volume on the date the activist exceeds 5% ownership, is associated with an increase in the buy-and-hold return over the course of an activist campaign of 5.5% to 8.4%).

58 *See* Ryan Flugum et al., *Shining a Light in a Dark Corner: Does EDGAR Search Activity Reveal the Strategically Leaked Plans of Activist Investors?*, J. FIN. QUANT. ANALYS. (forthcoming 2023), *available at* https://ssrn.com/abstract=3612507 ("Flugum et al. 2023 Study").

five percent threshold[59] as evidence of certain traders other than the filer being aware of the filer's intentions. While the researchers note that some of the trading behavior investigated in these studies may reflect the reaction of sophisticated investors to unusual, public market data (such as that associated with the filer's purchases) in advance of a Schedule 13D filing, further evidence led them to suggest that at least some of the increased trading is by potentially informed investors.[60]

Other research identifies specific types of potentially informed traders or more direct evidence of those traders' source of information. For example, one study presented evidence suggesting that the broker of a filer may leak information about the filer's trades to other traders before the Schedule 13D filing.[61] Another study observed a correlation between purchases by insiders and by the filer before the Schedule 13D filing, and suggested this trading reflected inside information and insiders' surveillance of trading volume and ownership data for the issuer's stock.[62]

b. Quantitative Analysis of Potential Harms to Certain Selling Shareholders Under the Current Initial Schedule 13D Filing Deadline

To understand the quantitative implications of the information asymmetry stemming from the current initial Schedule 13D filing deadline, we examine abnormal[63] trading volumes in the days prior to a filing to estimate the potential harms that could be prevented by a shortened filing window. We focus on trading before the filing date to exclude trading in reaction to the information in the filing, and use information on the filer's trades from Schedule 13D to exclude their share accumulations from this analysis.

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59 *See, e.g.*, Wong 2020 Study.

60 For example, the researchers found that institutions unusually accessing EDGAR filings for issuers prior to Schedule 13D filings each appeared to engage in this activity primarily for Schedule 13D filings pertaining to a particular filer, rather than predicting Schedule 13D filings in general. *See* Flugum et al. 2023 Study. Also, both this study and the abnormal volume study discussed above found evidence of abnormal trading activity even in the case of Schedule 13D filings made by previous Schedule 13G filers, which are less likely to be accompanied by unusual market activity associated with trades by the filer. *See* Flugum et al. 2023 Study; Wong 2020 Study.

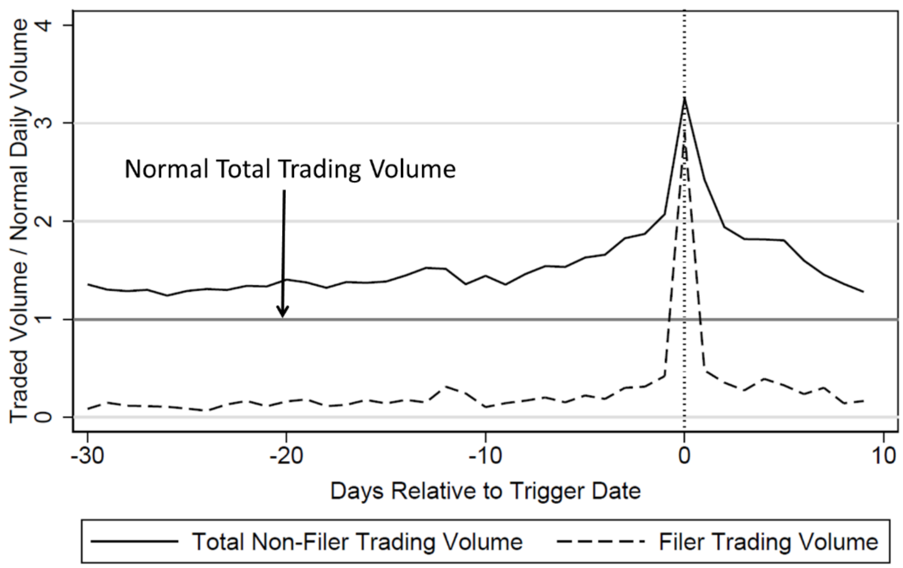
61 *See* Marco Di Maggio et al., *The Relevance of Broker Networks for Information Diffusion in the Stock Market*, 134 J. FIN. ECON. 419 (2019) (finding that the "best clients" of the broker used by a filer, *i.e.*, those generating a large share of the broker's business, buy more of the target stock than other institutional investors in the ten days prior to a Schedule 13D filing).

62 *See* Georgy Chabakauri et al., *Trading Ahead of Barbarians' Arrival at the Gate: Insider Trading on Non-Inside Information*, (Colum. Bus. Sch. Rsch. Paper, Jan. 2022), *available at* https://ssrn.com/abstract=4018057 (finding a significant concurrence between purchases of stock by insiders of the issuer and purchases by an activist in the 60 days, and particularly in the last ten days, preceding a Schedule 13D filing).

63 We focus on abnormal trading volume rather than total trading volume because it is likely that the trades comprising the normal amount of trading volume represent investors making an exchange based on the same information set, with no net harm even though ex post it may appear that the buyer turned out to be "lucky" and the seller "unlucky," as would be the case before the revelation of other positive news.

As discussed in Section 1.b. above, our analysis focuses on those Schedule 13D filings that we classify as "non-corporate-action filings" (as opposed to corporate action filings),[64] which represent about 20 percent of initial Schedule 13D filings (per the first row of Table 2).[65] For these filings, Figure 5 compares the average trading volume excluding the filer's accumulations ("Total Non-Filer Trading Volume"), as compared to the filers' average pattern of accumulations ("Filer Trading Volume").[66] Both measures are scaled by the normal level of daily trading volume in the issuer's stock such that a value of one for "Total Non-Filer Trading Volume" would mean there is zero abnormal trading volume outside of the filer's trades while a value of two for "Total Non-Filer Trading Volume" would mean that trading volume is double the usual level (*i.e.*, there is an amount of abnormal trading volume equal to the amount of normal trading volume).

Figure 5. Trading volumes around trigger date for non-corporate-action filings from 2011-2021, excluding trading volume on or after actual Schedule 13D filing date



Abnormal trading volume in an issuer's stock by traders other than the filer peaks on the same day the filer's trading peaks (*i.e.*, on the trigger date, when the filer crosses the five percent threshold). However, abnormal trading volumes continue to remain elevated for the rest of the

64 As discussed in Section 1.b. above, given the pattern of abnormal returns that we observe on average for corporate action filings, we expect that selling shareholders are unlikely to be materially harmed in the days just prior to the actual filing date under the current filing deadline in this subset of filings.

65 We make the same exclusions from the full sample of non-corporate-action filings as in the case of the analysis in Section 2.b. above (Figures 3, 4a, and 4b, and Table 4), resulting in a sample of non-corporate-action filings consisting of 2,371 filings from 2011 through 2021. See *supra* note 47 and accompanying text for more information on the sample restrictions in the analysis.

66 The estimates in the figure are based on staff analysis of EDGAR filings through programmatic text analysis as well as data from the CRSP database. The figure reflects the 1,686 non-corporate-action filings out of the total 2,371 filings in our analysis that had trading volume data available (generally reflecting issuers listed on the NYSE, NYSE American, NASDAQ, and NYSE Arca exchanges). Abnormal trading volume is computed as the excess of trading volume over the average daily trading volume in the 60 day period beginning 120 days prior to the given date.

ten-day filing window, including after day five, which may represent purchases by opportunistic traders that suspected or were aware of the impending campaign. We note that there is also abnormal trading well in advance of the trigger date, and that this and other abnormal trading volume in the graph could reflect trading by potentially informed, opportunistic traders, but could also reflect other traders simply reacting to the same news, market conditions, or trends in issuer performance that may attract the filer.

To understand the potential harms to selling shareholders that may be prevented or reduced by a shortened deadline, we will focus on abnormal trading volume by traders other than the filer in the days between the fifth day after the filer crosses the five percent threshold and the actual filing date. We exclude trading on the actual filing date because there is typically significant trading volume in reaction to the filing on that date. While it is possible that there is additional trading by potentially informed, opportunistic traders on the actual filing date but before the actual time that the filing becomes public, we are unable to distinguish any such trading from trading in reaction to the filing. For this reason, we excluded this trading, and our analysis will not reflect any harms associated with trading on the actual filing date.[67]

In order to estimate harms to the selling shareholders, we also collected information on abnormal returns to understand the amount of appreciation forgone by trading prior to the filing becoming public information. The pattern of abnormal returns[68] varies across scenarios in which the filer completed accumulating their reported stake by day five after the trigger date but submitted their Schedule 13D filing later, and those in which the filer was still accumulating shares after day five. Figures 6a and 6b[69] present the average pattern of abnormal returns for these two scenarios separately. In order to align the trigger and filing dates across filings in the graph, we limit the filings in the figure to those that used the full ten-day filing window to file.[70]

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67 Given that the measured abnormal trading volume trends down over the filing window, as demonstrated in Figure 5, we expect that the effect of excluding this potential intra-day abnormal trading volume is relatively small.

68 Throughout this section (and Section 1.b. above), an "abnormal return" represents the difference between an issuer's market stock return and the CRSP value-weighted market index. *See supra* note 16.

69 *See supra* note 66. The cumulative abnormal returns by the end of the period in these graphs differ slightly from the day -20 to 20 cumulative abnormal returns reported in Row 10 of Table 4. The statistics in the table follow existing studies in using a measurement period based on a number of *business* days around the filing date, while these graphs present returns by the *calendar* days around the filing date to align the trigger and filing dates across filings.

70 Besides the sample restrictions described *supra* note 65, Figures 6a and 6b are also limited to filings for which stock return data is available (generally, issuers listed on the NYSE, NYSE American, NASDAQ, and NYSE Arca exchanges). This restriction leads to a sample of 2,103 non-corporate-action filings. Filers of 1,436 of these filings completed acquiring their reported stake by the proposed deadline, while the filers of the remaining 667 filings continued to accumulate part of their reported stake afterwards. The additional requirement in Figure 6a that the filer used the full ten-day filing window to file results in Figure 6a reflecting 215 non-corporate-action filings, or 15% of the subsample that completed acquiring their stake by the proposed deadline. The similar requirement in Figure 6b results in this figure reflecting 281 non-corporate-action filings, or 42% of the subsample that continued to accumulate part of their reported stake after the proposed deadline.

Figure 6a. Cumulative abnormal return around filing date for non-corporate-action filings from 2011-2021 filed ten days after trigger date, and <u>without</u> filer purchases after proposed filing deadline

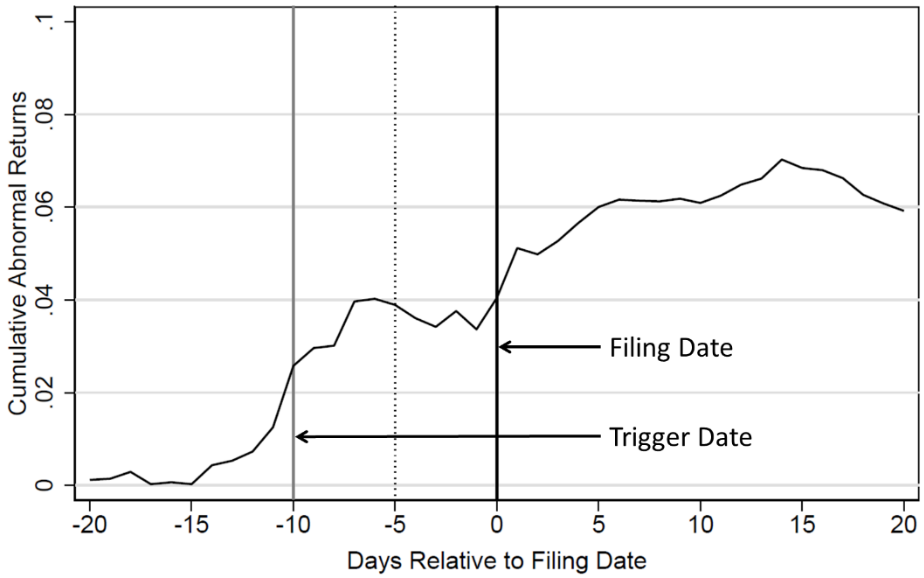
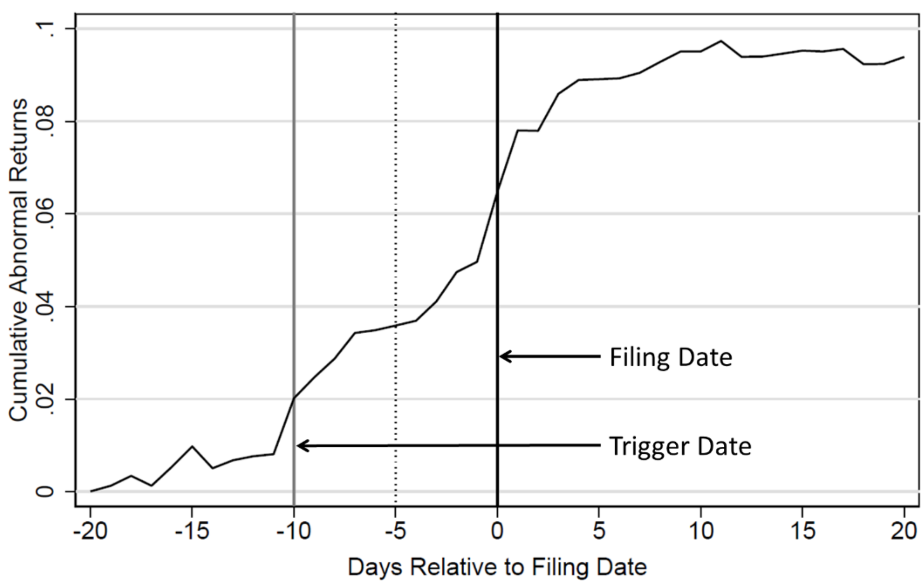


Figure 6b. Cumulative abnormal return around filing date for non-corporate-action filings from 2011-2021 filed ten days after trigger date, and <u>with</u> filer purchases after proposed filing deadline



The harm to a shareholder selling to a potentially informed, opportunistic trader between the proposed filing deadline and the current filing date would consist of the stock return between the day that they sell and the day after the filing date, when the information previously known to their trading counterparty is known to the whole market. Based on Figures 6a and 6b, there are meaningful abnormal returns between the proposed filing deadline and the actual filing date for both subsamples of the filers in our analysis, with a greater such return when the filer is still accumulating shares after day five.

To estimate harms to selling shareholders that may be occurring between the proposed filing deadline and actual filing dates, and thus might be avoided by the proposed filing deadline amendments, we used the data discussed above to conduct the analysis presented in Table 5.[71]

Table 5
Analysis of Harms to Shareholders Selling to Potentially Informed Traders by Degree of Filer Accumulation by Proposed Filing Date, Annualized (2011-2021)

	Percent of Stake Accumulated by Filer by Proposed Deadline			
	(1) 100% (full stake)	**(2) <100%**	**(3) <90% subset of (2)**	**(4) <75% subset of (3)**
(1) Average number of campaigns / yr with potential harms between proposed deadline and filing date*	57	66	17	4
Filer/Campaign Characteristics:				
(2) Median abnormal return from proposed deadline to day after filing	1.2%	2.2%	3.8%	6.9%
Harms Analysis:				
(3) Average total abnormal trading volume other than filer's trades between proposed deadline and filing date (% shares outstanding)	1.2%	1.2%	1.9%	3.4%
(4) Average harm to selling shareholders, per campaign**	\$460K	\$990K	\$1.9M	\$7.0M
(5) Aggregate harm to selling shareholders for this category	\$27M/year	\$66M/year	\$32M/year	\$27M/year

* These campaigns represent the subset of the filings in Table 5 for which there are trading days between the fifth day after the trigger date and the filing date.

** Harms are computed as the sum across days of the abnormal trading volume (less the filer's trades) in shares on a given day between the proposed and actual filing date times the return from that day to the day after the filing date. *See* note 71 for additional details.

[71] The estimates in the table are based on staff analysis of EDGAR filings through programmatic text analysis as well as data from the CRSP database. Estimates of abnormal returns and abnormal trading volumes (Rows 2 and 3) are based on the campaigns for which the required data was available. The estimate of harms assumes trades on a given day are executed at the average of the closing price on that day and the closing price on the previous day and that the harm per share traded is the difference between that price and the closing price one day after the filing date. For the aggregate estimate of the harm to selling shareholders, the estimated average harm to selling shareholders per campaign (in Row 5) is used as a proxy for the harm to selling shareholders in campaigns for which the data required to produce this estimate was unavailable (about 13% to 36% of campaigns in any given category). Abnormal trading volume is computed as the excess of trading volume over the average daily trade volume in the 60 day period beginning 120 days prior to the given date.

The columns of Table 5 reflect the same subsamples of filings as the corresponding columns of Table 4,[72] with the additional restriction that filings are only included if there would have been an opportunity to trade between the proposed deadline and the actual filing date. In total, 93 filings included in Table 4 are excluded from Table 5 because they were filed on or before the first business day after the proposed filing deadline.

Rows 2 and 3 of Table 5 present information on the abnormal returns and abnormal trading volume between day five after the trigger date and the filing date in each subset of campaigns. Both the abnormal returns (which would drive the extent of wealth transferred by trading with an opportunistic trader in this timeframe) and the abnormal volume (which characterizes the potential number of such trades) are higher for campaigns in which the filer is still accumulating a significant portion of their stake after day five following the trigger date. The estimates in Row 5 of Table 5 represent potential harms to selling shareholders after day five following the trigger date for each subset of campaigns based on a day-by-day analysis of the abnormal volume and the potential forgone return for each underlying campaign.[73] For example, the aggregate estimate of potential harms that could be avoided by shortening the filing deadline to five calendar days if no filers abandon campaigns (and filers do not adapt in such a way that the harms may still accrue) is about $93 million per year ($27 million from Column 1 plus $66 million from Column 2). Alternatively, if we assume that filers accumulating 25 percent or more of their stake after day five completely abandon such campaigns, the aggregate estimate of potential harms that could be avoided would be about $66 million per year ($93 million, as computed above, minus $27 million from Column 4).

The estimates in Table 5 assume that all abnormal trading volume on the days between the proposed deadline and the actual filing date, other than that representing the filer's own trades, represents trades by potentially informed, opportunistic traders. As discussed above, it is possible that some of the abnormal trading volume represents other traders' reactions to similar news, market conditions, and trends as the filer. For example, researchers have found that filers time their accumulations to coincide with institutional liquidity shocks, so it is possible that some of this abnormal volume may simply represent the extent of this institutional selling pressure.[74] We also acknowledge that the opportunistic traders, like filers,[75] may adapt to the proposed amendments and condense these trades in the period prior to day five following the trigger date, which may limit the amount of harms avoided.

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72 See the discussion immediately following Table 4 in Section 2.b. above for more detail on the categories represented by each column.

73 We acknowledge that the estimates in Row 5 of Table 5 are approximate and may be sensitive to the methodology for estimating abnormal returns. *See supra* note 16.

74 *See*, *e.g.*, Gantchev & Jotikasthira 2018 Study (finding that the timing of Schedule 13D share accumulations is closely tied to institutional liquidity shocks, in that activist purchases closely track institutional sales at the daily frequency).

75 See Section 2.b. above for a discussion of how filers may adapt to the proposed deadline.

The harms to selling shareholders from trading opposite potentially informed, opportunistic traders, and the associated information asymmetry, may have broader implications for trust in markets and liquidity. In particular, lessening an informational advantage that some market participants may perceive to be unfair could enhance trust in the securities markets, thereby promoting capital formation.[76] In addition, under current rules, the risk of facing these opportunistic traders and bearing these harms may lead market makers to charge wider bid-ask spreads and thus reduce liquidity.[77] These potential effects of the proposed amendments may be tempered somewhat to the extent the counterparties of these opportunistic traders are institutions with liquidity needs.[78] These effects would also be accompanied by other potential benefits of the accelerated filing deadline, principally the enhancement of allocative efficiency due to the earlier incorporation of information contained in the Schedule 13D filing into investment decisions and prices.[79]

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76 *See*, *e.g*., Luigi Guiso et al., *Trusting the Stock Market*. 63 J. FIN. 2557 (2008).

77 *See*, *e.g*., Lawrence Glosten & Paul Milgrom, *Bid, Ask, and Transaction Prices in a Specialist Market with Heterogeneously Informed Investors*, 14 J. FIN. ECON. 71 (1985) (presenting a model of a specialist market with trading by insiders, and describing generally how a specialist must recoup the losses suffered in trades with the well informed by gains in trades with liquidity traders, and that these gains are achieved by setting a spread). However, we acknowledge that the association between information asymmetry and liquidity may be indeterminate in the case of an activist campaign, particularly when considering only the information asymmetry between the activist and the market. *See*, *e.g.*, Kerry Back et al., *Activism, Strategic Trading, and Liquidity*, 86 ECONOMETRICA 1431 (2018) (finding that the association between liquidity and asymmetric information of the activist may be indeterminate because their trading endogenously reacts to liquidity and the information is a function of their trading); Pierre Collin-Dufresne & Vyacheslav Fos, *Do Prices Reveal the Presence of Informed Trading?*, 70 J. FIN. 1555 (2015) (finding that illiquidity and measures of adverse selection are lower on days that the activist trades, due to market timing and the use of limit orders by activists).

78 Studies have found that Schedule 13D filer accumulations are timed, on average, coincident with institutional selling pressure. *See*, *e.g.*, Gantchev & Jotikasthira 2018 Study. One comment letter provided an analysis suggesting that retail investors are not, on average, net sellers during the Schedule 13D filing window. *See* letter from Robert E. Bishop & Frank Partnoy, UC Berkeley School of Law (Apr. 11, 2022), *available at* https://www.sec.gov/comments/s7-06-22/s70622-20123323-279616.pdf; s*ee also* Ekkehart Boehmer et al., *Tracking Retail Investor Activity*, 76 J. FIN. 2249 (2021) (introducing the algorithm for identifying retail order flow used in the cited comment letter).

79 Several commenters suggested that the economic analysis in the Proposing Release could have been enhanced by further analysis of the extent to which the proposed amendments would enhance efficiency. *See, e.g.*, Lewis Study (exhibit to letter from Elliott) (stating that "the Commission could have analyzed equity trading activity and abnormal returns around triggering and announcement dates to properly assess potential gains to market efficiency"). We present information about trading volumes and abnormal returns around trigger dates and filing dates as part of the analysis in this section. *See* Figures 1, 2, 5, 6a, and 6b, as well as Row 2 of Table 5. As discussed above, we found meaningful abnormal returns between the proposed filing deadline and the current filing date for many subsamples of filings (*e.g.*, each of the subsets presented in Row 2 of Table 5). These abnormal returns patterns suggest that a shortened deadline may accelerate the remaining market price reaction and therefore improve market and allocative efficiency. We also found variation in the returns patterns across types of filings, such that the potential gains in allocative efficiency would be driven by non-corporate-action filings rather than corporate action filings, and could be greatest in cases in which the filer currently continues to accumulate a significant fraction of their stake between the proposed filing deadline and their actual filing date.