MEMORANDUM

To: Commission File No. S7-12-15

From: Division of Economic and Risk Analysis

Date: June 8, 2022

Re: Supplemental data and analysis on the voluntary adoption of compensation recovery provisions by issuers and the impact of including "little r" restatements as triggers for a compensation recovery analysis

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On July 1, 2015, the Commission proposed "Listing Standards for Recovering of Erroneously Awarded Compensation" (the "Proposing Release").[1] On October 14, 2021, the Commission reopened the comment period for the proposed rules (the "Reopening Release").[2] The Reopening Release noted developments relating to compensation recovery policies since the Proposing Release and, in addition to the request for comment included in the Proposing Release, specifically sought comment on certain changes from the proposed approach that the Commission was considering. The comment period for the Reopening Release closed on November 22, 2021.

After reviewing the comments provided and additional data and research on compensation recovery policies that have become available since the time of the Proposing Release, staff prepared this memo to provide supplemental baseline data and analysis on two points. First, this memo discusses the increase in voluntary adoption of compensation recovery policies by issuers. Second, this memo provides estimates of the number of additional restatements that would trigger a compensation recovery analysis if, as described in the Reopening Release, the rules were extended to include all required restatements made to correct an error in previously issued financial statements. The memo also briefly discusses some potential implications for the costs and benefits of the proposed rules.

1. Frequency of adoption of compensation recovery provisions

As noted in the Reopening Release, many companies have voluntarily adopted compensation recovery provisions since the Proposing Release in 2015. Table 1[3] indicates that the number and percentage of filers that disclose a compensation recovery policy has roughly doubled relative to the estimates provided in the Proposing Release.[4] Within the categories of smaller reporting companies (SRCs), emerging growth companies (EGCs), foreign private issuers (FPIs), and multijurisdictional disclosure system filers (MJDS), the increase is larger.[5]

Although there has been a large increase in the percentage of filers that disclose a compensation recovery policy, several studies indicate that these policies have more limited circumstances in which a compensation recovery analysis would be triggered than would be the case under the proposed rules.[6] For example, unlike the provisions under the proposed rules, voluntarily adopted compensation recovery provisions may only be triggered if there is misconduct on the part of the executive,[7] may apply to a smaller set of executives,[8] and/or may have a shorter look-back period.[9]

The increase in the number of companies with voluntarily adopted compensation recovery provisions has implications for the expected benefits and costs of the proposed rules previously discussed in the Proposing Release. For example, the benefits of the proposed rules, including increased incentives to improve financial reporting[10] and business practices,[11] as well as reduced costs of incentive-based compensation,[12] may be reduced if companies have already adopted strong compensation recovery provisions.[13] In addition, we expect that the costs of the proposed rules, such as those associated with implementation and compliance, potential changes in reporting incentives,[14] and potential shifts in executive compensation[15] would likewise be mitigated under such circumstances. To the extent that companies are already disclosing information about voluntarily adopted recovery policies, the benefits and costs from the proposed disclosure requirements may be mitigated. We also note that other governance controls and market forces affecting executive compensation structure may mitigate the effects of the proposed rules.[16] Thus we expect that the increase in voluntary adoption of compensation recovery provisions relative to the baseline in the Proposing Release may reduce the anticipated benefits and mitigate the anticipated costs of the proposed rules.

Table 1
Number and Percentage of Filers that Disclose a Compensation Recovery Policy

		Number of filers that disclose a recovery policy	Number of filers affected (total)	Percent of filers that disclose a recovery policy
All affected filers (total)	**2021**	**2,451**	**5,364**	**46%**
	Proposing Release	***1,116***	***4,845***	***23%***
SRCs	2021	352	1,039	34%
	Proposing Release	*29*	*706*	*4%*
EGCs	2021	31	160	19%
	Proposing Release	*9*	*376*	*2%*
SRC and EGC	2021	71	757	9%
	Proposing Release	*Included in the SRC or EGC category*		
FPIs	2021	178	722	25%
	Proposing Release	*17*	*511*	*3%*
MJDS	2021	17	132	13%
	Proposing Release	*1*	*128*	*1%*
All other filers	2021	1,804	2,554	71%
	Proposing Release	*1,060*	*3,124*	*34%*

2. Frequency of "little r" restatements

As discussed in the Reopening Release, the Commission is considering whether the term "an accounting restatement due to material noncompliance" should be interpreted to include restatements that correct errors that resulted in a material misstatement in previously issued financial statements (commonly referred to as "Big R" restatements) as well as restatements that correct errors that would only result in a material misstatement if (a) the errors were left uncorrected in the current report or (b) the error correction was recognized in the current period (commonly referred to as "little r" restatements)[17] as triggers for a compensation recovery analysis.

As shown in Table 2, we estimate that "little r" restatements may account for roughly three times as many restatements as "Big R" restatements in 2021, after excluding restatements by SPACs.[18] Accordingly, if the final rules were to encompass both types of restatements, it would increase the total number of restatements that could potentially trigger a compensation recovery analysis that may result in recovery.

However, "little r" restatements may be less likely than "Big R" restatements to trigger a potential recovery of compensation. For example, "little r" restatements may be less likely to be associated with a decline in previously reported net income,[19] and on average they are associated with smaller stock price reactions.[20] As a result, if the final rules were to encompass both "Big R" and "little r" restatements, while there would be an increase in the number of restatements that would be included, the overall number of recoveries may not increase in proportion to the increase in the number of restatements that would be included. This, in turn, would mitigate the potential impact of including "little r" restatements on the expected benefits and costs associated with the proposed rules.

The potential inclusion of "little r" restatements may increase both the benefits and the costs associated with the proposed rules as discussed in the Proposing Release, due to the increase in the number of restatements that would be included compared to the proposed rules. For example, to the extent that companies may recover additional erroneously awarded compensation with the inclusion of "little r" restatements, the company may benefit from the availability of those additional funds for other productive uses,[21] and the implementation costs associated with those recoveries may also increase.[22] In addition, the inclusion of "little r" restatements might increase the benefits associated with incentives for high quality financial reporting,[23] as well as incentives for value-enhancing business practices,[24] because more restatements would potentially be affected by the compensation recovery provisions. On the other hand, it is also possible that including "little r" restatements may increase potential incentives for executives to affect financial results through means that would not trigger compensation recovery,[25] with one exception: including "little r" restatements would likely *mitigate* the potential for the proposed rules to create an incentive for managers to report misstatements as "little r" restatements rather than "Big R" restatements.[26] The inclusion of "little r" restatements may also increase the benefits[27] and costs[28] associated with potential shifts in managerial compensation.

Table 2
Frequency of “Big R” and “little r” Restatements

Source	Date Range	Exchange Listed Only	# Big R	# little r	# little r divided by # Big R
Audit Analytics Database 2021 (excluding SPACs)[29]	CY 2021	Yes	54	173	3.2x
Audit Analytics, 2021 Financial Restatements (including SPACs) [30]	CY 2021	No	911	559	0.6x
Audit Analytics, 2021 Financial Restatements (excluding SPACs) [31]	CY 2021	No	81	257	3.2x
Audit Analytics, 2020 Financial Restatements[32]	CY 2020	No	79	246	3.1x
Audit Analytics, 2019 Financial Restatements[33]	CY 2019	No	85	334	3.9x
Choudhary *et al.* [34]	10/15/08-12/31/15	Yes	88	229	2.6x

As noted in the Proposing Release, the effects of the proposed rules may vary across different types of listed issuers. The effects could be greater (or lower) for SRCs, relative to non-SRCs, to the extent that SRCs use a higher (or lower) proportion of incentive-based compensation than other issuers or are more likely to restate financial disclosures. According to a recent study, U.S. issuers who are not accelerated filers accounted for approximately 53% of total U.S. issuer restatements in 2020.[35] Based on DERA staff analysis, in 2021, “little r” restatements accounted for approximately 71% of restatements by U.S. issuers who are not accelerated filers, a slightly smaller portion than all U.S. issuers (approximately 80%).[36]

[1] *See Listing Standards for Recovery of Erroneously Awarded Compensation*, Release No. 34-75342 (July 1, 2015) [80 FR 41143 (July 14, 2015)].

[2] *See Reopening of Comment Period for Listing Standards for Recovery of Erroneously Awarded Compensation*, Release No. 34-93311 (Oct. 14, 2021) [86 FR 58232 (Oct. 21, 2021)].

[3] Table 1 provides an update of the figures on page 41172 of the Proposing Release. We estimate the number of issuers that have disclosed some form of compensation recovery policy based on Commission staff analysis of information disclosed in Form 10-K, Form 20-F, Form 40-F, and an issuer's annual proxy statement (DEF 14A) during calendar year 2021. Staff used text analysis and keyword searches similar to those of Ilona Babenko, Benjamin Bennett, John Bizjak, Jeffrey Coles, & Jason Sandvik, *Clawback Provisions and Firm Risk* (working paper June 21, 2021), *available at* https://ssrn.com/abstract=4006661 (retrieved from SSRN Elsevier database). In contrast to the analysis provided in the Proposing Release, we modified the keyword search because the searches identified companies that disclosed they had *not* adopted or *were considering adopting*, compensation recovery provisions. Specifically, we eliminated 235 out of 5,364 (4%) of companies flagged by the keyword search because the disclosures indicated the absence or consideration of compensation recovery provisions rather than their presence. Also, in the proposing release analysis, we included the filer in the SRC or EGC category if the filer was both a SRC and an EGC. In Table 1, the 2021 SRC and EGC filers were classified into three mutually exclusive categories: SRCs (only), EGCs (only), and "SRC and EGC." These estimates are based on the number of filers, by unique CIK, that, pursuant to registering at least one class of equity securities under Section 12(b) of the Exchange Act, filed an annual report on Form 10-K, Form 20-F, or Form 40-F or an amendment thereto in calendar year 2021. Staff determined an issuer's Section 12(b) registration status based, in part, on the self-reported status disclosed on the annual report cover page, as well as other determining factors such as the number or holders of record, the issuer's total assets, and the issuer's filing history of long- and short-form registrations (on Form 10-12 or Form 8-A12, respectively), deregistration filings (on Form 15), and delisting filings (on Form 25 or Form 25-NSE). Examining filings in this manner involves a certain degree of error, and it is possible for issuers to be misclassified. Hence, all numbers in this memo are only estimates.

[4] The Proposing Release provided an estimate of the number of issuers that disclosed a compensation recovery policy between July 1, 2013, and June 30, 2014.

[5] Other reports published since the Proposing Release provided information on the prevalence of compensation recovery provisions. *See*, *e.g.*, Babenko *et al.*, *supra* note 3 (finding that the percentage of firms with disclosed compensation recovery policies increased from less than 1% in 1996 to over 61% by the end of 2017); Meridian Compensation Partners, *2021 Corporate Governance and Incentive Design Survey* (Fall 2021), *available at* https://www.meridiancp.com/insights/2021-corporate-governance-and-incentive-design-survey/ (98% of the S&P 500 companies have adopted compensation recovery policies as of 2021); ClearBridge Compensation Grp., *The Clearbridge 100 Report for Mid-Cap Companies: Executive Compensation Policies* (Dec. 2020), *available at* https://www.clearbridgecomp.com/wp-content/uploads/CB100-Report-for-Mid-Cap-Companies-Exec-Comp-Policies-12-11-20.pdf (83% of mid-cap (S&P 400) companies have adopted compensation recovery policies as of 2020). We also note that many companies have implemented compensation "holdbacks," which is deferred compensation that has been accrued but not yet been paid to the executive. According to some researchers, depending on the compensation structure, a "holdback" provision may have similar incentive effects as compensation recovery provisions. *See, e.g.*, Stuart L. Gillian & Nga Nguyen, *Clawbacks, Holdbacks, and CEO Contracting*, 30 J. APPL. CORP. FIN. 53 (2018).

[6] *See, e.g.*, Tor-Erik Bakke, Hamed Mahmudi, & Aazam Virani, *The Value Implications of Mandatory Clawback Provisions* (working paper June 28, 2018), *available at* https://ssrn.com/abstract=2890578 (retrieved from SSRN Elsevier database) (as of 2014-2015, only 5% (43 of 1,123) of companies with a voluntarily adopted compensation recovery policy have policies that are comparable to the Proposing Release); *see also* Meridian Compensation Partners, *supra* note 5; ClearBridge Compensation Grp., *supra* note 5. *Cf.* Michael H.R. Erkens, Yingjin Hila Gan, & Burcin Yurtoglu, *Not all clawbacks are the same:*

Consequences of strong versus weak clawback provisions, 66 J. ACCT. & ECON. 291 (2018) (developing a "Clawback Strength Index," and finding that adopters of stronger policies experience more benefits).

[7] *See* Rachel Thompson, *Reporting Misstatements as Revisions: An Evaluation of Managers' Use of Materiality Discretion*, (SSRN working paper Sept. 17, 2021), *available at* https://ssrn.com/abstract=3450828 (retrieved from SSRN Elsevier database) (finding that 52 of 98 companies with compensation recovery provisions require fraud or misconduct as a condition of the recovery); Babenko *et al.*, *supra* note 3 (finding that 69% of compensation recovery policies specify that recovery applies only to persons directly responsible for the triggering event).

[8] As of 2021 approximately 60% of a representative sample of S&P 500 companies had compensation recovery policies that applied to current key executives (*e.g.*, Section 16 officers); approximately 23% applied to all incentive (annual and/or equity) plan participants; approximately 13% percent applied to current and former key executives; and the remaining 4% applied to current named executive officers only. *See* Meridian Compensation Partners, *supra* note 5; *see also* Shearman & Sterling LLP, *Corporate Governance & Executive Compensation Survey 2021* (2021), *available at* https://www.shearman.com/Perspectives/2021/11/Shearman-Releases-19th-Annual-Corporate-Governance-and-Executive-Compensation-Survey (reporting similar results from a survey of the 100 largest U.S. public companies).

[9] For instance, Babenko *et al.*, *supra* note 3, report that 63% of companies have a disclosed "statute of limitations" for the compensation recovery policy that is less than three years.

[10] *See* Proposing Release at 41174-76. Recent studies have further discussed this potential effect of compensation recovery provisions on financial reporting. *See* Henry K. Mburu & Alex P. Tang, *Voluntary Clawback Adoption and Analyst Following, Forecast Accuracy, and Bias*, 18 J. ACCT & FIN. 106 (2018) (finding that voluntary adoption of compensation recovery provisions leads to an increase in analyst coverage and analyst accuracy, as well as reduced optimistic bias by analysts); Mark A. Chen, Daniel Greene, & James E. Owers, *The Costs and Benefits of Clawback Provisions in CEO Compensation*, 4 REV. CORP. FIN. STUD. 108 (2015) (finding lower earnings variability and reduced aggressiveness in financial reporting after voluntary adoption of a compensation recovery provision); Bradley Benson, Agnes Cheng, & Cathy Liu, *Will the Adoption of Clawback Provisions Mitigate Earnings Management?*, 18 J. ACCT. & FIN. 61 (2018) (finding that when compensation recovery provisions are implemented by a company with an independent board, earnings quality improves).

[11] *See* Proposing Release at 41174 (noting that the proposed rules may lead to changes in business practices for the issuer). Several recent studies have provided additional evidence of the effect on managerial decisions in the context of voluntarily adopted compensation recovery policies. *See, e.g.*, Yu-Chun Lin, *Do Voluntary Clawback Adoptions Curb Overinvestment?*, 25 CORP. GOVERN. INT'L REV. 255 (2017) (finding that compensation recovery provisions mitigate overinvestment); Dina El-Mahdy, *The Unintended Consequences of Voluntary Adoption of Clawback Provisions on Managerial Ability*, 60 ACCT. & FIN. 2493 (2020) (finding that voluntary adoption of compensation recovery provisions is associated with an increase in productivity as measured by revenues generated for a given level of costs); Thomas Kubrick, Thomas Omer, & Zac Wiebe, *The Effect of Voluntary Clawback Adoptions on Corporate Tax Policy*, 95 ACCT. REV. 259 (2020) (finding that adoption of compensation recovery provisions may lead to more effective tax planning and lower effective tax rates); Anna Brown, Paquita David-Friday, Lale Guler, & Carol Marquardt, *M&A Decisions and US Firms' Voluntary Adoption of Clawback Provisions in Executive Compensation Contracts*, 42 J. BUS. FIN. & ACCT. 237 (2015) (finding that adoption of compensation recovery provisions leads to improved decisions in the context of mergers and acquisitions); Matteo P. Arena & Nga Nguyen, *Compensation Clawback Policies and Corporate Lawsuits*, 27 J. FIN. REG. & COMPLIANCE 70 (2019) (finding that after the adoption of compensation recovery provisions, litigation risk significantly declines). One paper finds that firms' investment risk decreases with the voluntary adoption of a compensation recovery provision, but notes that this effect may be either value-increasing or value-decreasing, depending on the circumstances. *See* Yu Chen & Carol Vann, *Clawback Provision Adoption, Corporate Governance, and Investment Decisions*, 44 J. BUS. FIN. ACCT. 1370 (2017) (finding that after

adopting a compensation recovery provision, firms' abnormal investment decreases and the firms' investments are less risky).

[12] *See* Proposing Release at 41179 ("The implementation of a mandatory recovery policy may also make it less costly overall to use incentive-based compensation. Without a recovery policy, as noted above, a compensation package with significant incentive-based compensation components based on financial reporting measures may provide incentives for an executive to engage in conduct that could result in inaccurate financial reporting."). This effect was also observed in recent studies examining voluntarily adopted compensation recovery provisions. *See, e.g.*, Peter Kroos, Mario Schabus & Frank Verbeeten, *Voluntary Clawback Adoption and the use of Financial Measures in CFO Bonus Plans*, 93 ACCT. REV. 213 (2018) (finding that adoption of compensation recovery provisions is associated with greater CFO bonus incentives because such compensation recovery provisions serve as an effective check on the ability of CFOs to manipulate the performance metrics that could influence their performance-based compensation); Hanni Liu, Harrison Liu, & K.K. Raman, *The Impact of Clawback Adoption on Executive Cash Compensation Structure* (working paper Jan. 14, 2019), *available at* https://ssrn.com/abstract=3315571 (retrieved from SSRN Elsevier database) (finding that voluntary adoption of compensation recovery provisions is associated with greater sensitivity between negative firm performance and CEO bonuses, making it more comparable to the general sensitivity between positive firm performance and CEO bonuses); Chen *et al.*, *supra* note 10 (finding that compensation recovery provisions are associated with greater CEO pay-for-performance sensitivity).

[13] Bakke *et al.*, *supra* note 6, find that firms without a compensation recovery provision experienced positive abnormal returns around the announcement of the Proposing Release, relative to firms with an existing compensation recovery provision. These results suggest that the effects of the proposed rules would provide a net benefit to companies that do not have a compensation recovery provision, but that the aggregate benefits of the rulemaking would be reduced due to the increase in companies with compensation recovery provisions in place. More broadly, there is evidence regarding the benefits of compensation recovery provisions for adopting companies. *See, e.g.*, Mai Iskandar-Datta & Yonghang Jia, *Valuation Consequences of Clawback Provisions*, 88 ACCT. REV. 171 (2013) (finding that shareholders of companies that adopt voluntary recovery provisions experience statistically significant positive stock-valuation consequences, and that companies with previous financial restatements had the largest gains).

[14] The Proposing Release discussed, among other costs, the possibility that the rulemaking could create incentives for executives to affect financial results through means that would not trigger compensation recovery. *See* Proposing Release at 41175. Studies since the Proposing Release have further explored this potential cost. Compensation recovery provisions may encourage managers to make suboptimal operational decisions rather than suboptimal accounting decisions to meet financial targets. *See* Gary C. Biddle, Lilian H. Chan, & Jeong Hwan Joo, *Clawback Adoptions, Managerial Compensation Incentives, Capital Investment Mix and Efficiency* (working paper Dec. 28, 2021), *available at* https://ssrn.com/abstract=3042973 (retrieved from SSRN Elsevier database) (finding that the adoption of compensation recovery provisions induces shifts in the capital investment mix that reduce capital investment efficiency); Sohyung Kim, Cheol Lee, & Sanatanu Mitra, *Other Side of Voluntary Clawback Provisions in Executive Compensation Contracts: Evidence From the Investment Efficiency*, 25 REV. PACIFIC BASIN FIN. MKTS. & POLICIES 1 (2022) (finding evidence that the voluntary adoption of compensation recovery policies decreases the investment efficiency in the post-adoption period, especially for companies whose ex ante probability of underinvestment is high). Consistent with the possibility that compensation recovery provisions may create incentives to reduce R&D expenditures, Bakke *et al.*, *supra* note 6, find that the stock price reaction to the Proposing Release is less positive for companies with high cash flow activity and companies engaged in R&D activity, and it is negative for companies that have already adopted a compensation recovery provision and are engaged in R&D. Also, compensation recovery provisions may increase the incentives for managers to use non-GAAP measures and to conclude that accounting errors are not material to the previous period. *See* Hangsoo Kyung, Hakyin Lee, & Carol Marquardt, *The Effect of Voluntary Clawback Adoption on Non-GAAP Reporting*, 67 J. ACCT. & ECON. 175 (2019) (finding that non-GAAP earnings disclosure frequency increases and non-GAAP exclusion quality decreases after voluntary adoption of compensation recovery provisions, consistent with a more opportunistic use of non-GAAP reporting); Thompson, *supra* note 7 (finding that companies with

compensation recovery provisions are more likely to report misstatements as revisions instead of restatements).

[15] The Proposing Release discussed how the proposed rules may create an incentive to shift compensation from forms that are subject to recovery to forms that are not subject to recovery. *See* Proposing Release at 41176. Some recent studies have found support for this outcome. *See* Chen *et al.*, *supra* note 10 (finding that compensation recovery provisions are associated with higher CEO compensation.); Ramachandran Natarajan & Kenneth Zheng, *Clawback Provision of SOX, Financial Misstatements, and CEO Compensation Contracts*, 34 J. ACCT., AUDITING & FIN. 74 (2019) (finding that compared with control firms, companies with a high restatement likelihood where the CEO is the chair of the board exhibit an increase in CEO salaries between the pre- and post-SOX periods, suggesting that in the post-SOX period influential CEOs are able to receive higher salaries that are not subject to the SOX Section 304 clawback provision). By contrast, Erkens *et al.*, *supra* note 6, find results suggesting that while CEO incentive based compensation may be reduced for adopters of strong compensation recovery provisions, for those companies, CEO total compensation is also reduced. The authors suggest that the findings may indicate that the adoption of strong compensation recovery provisions is associated with a broader reform package. Similarly, Iskandar-Datta *et al.*, *supra* note 13, find no evidence that compensation recovery provisions entail costs in the form of higher CEO compensation following adoption nor do they influence the design of compensation contracts.

[16] Through say-on-pay votes and investor engagement, investors may have influence on the design of executive compensation. Recent evidence indicates some investor dissatisfaction with performance-based pay (*see, e.g.*, Council of Institutional Investors, *Policies on Corporate Governance* § 5 Executive Compensation (rev. Mar. 7, 2022), *available at* https://www.cii.org/corp_gov_policies#exec) as well as a growing interest in non-financial metrics (*see, e.g.*, PwC, *Purpose driven leadership: the evolving role of ESG metrics in executive compensation plans* (Mar. 2022), *available at* https://www.pwc.com/us/en/services/governance-insights-center/library/esg-metrics-compensation-plans.html). In addition, the board, via the compensation committee, has oversight over executive compensation, and typically weighs a number of considerations in determining how best to incentivize performance. *See, e.g.*, Alex Edmans, Xavier Gabaix, & Dirk Jenter, *Executive Compensation: A Survey of Theory and Evidence*, *in* THE HANDBOOK OF THE ECONOMICS OF CORPORATE GOVERNANCE 383 (Benjamin Hermalin & Michael S. Weisbach. ed., 2017) (describing the influences of boards, executives, and institutional factors such as legislation, taxation, accounting policy, compensation consultants, and proxy advisory firms on compensation outcomes).

[17] Studies cited herein and data included in this memo on "little r" restatement frequency may define "little r" restatements differently than this definition, and are generally based on the total number of revisions to previously-issued financial statements where the issuer did not file an Item 4.02 8-K.

[18] Special Purpose Acquisition Companies (SPACs) have been excluded from the count of both "Big R" and "little r" restatements in 2021; including restatements by SPACs would have yielded 837 "Big R" and 474 "little r" restatements in 2021. *See also* Paul Munter, Acting Chief Accountant, SEC, *Assessing Materiality: Focusing on the Reasonable Investor When Evaluating Errors* (Mar. 9, 2022), *available at* https://www.sec.gov/news/statement/munter-statement-assessing-materiality-030922 (noting that "little r" restatements as a percentage of total restatements rose to nearly 76% in 2020, up from approximately 35% in 2005); Preeti Choudhary, Kenneth Merkley, & Katherine Schipper, *Immaterial Error Corrections and Financial Reporting Reliability*, 38 CONTEMPORARY ACCT. RES. 2423 (2021) (reporting on numbers of "Big R" and "little r" restatements between October 2008 and December 2015).

[19] *See* Choudhary *et al.*, *supra* note 18 (finding that 60% of "Big R" restatements are associated with a negative impact on net income, whereas 25% of "little r" restatements have that effect); Thompson, *supra* note 7 (finding that 74% of "Big R" and 31% of "little r" restatements have a negative effect on net income); Christine Tan & Susan Young, *An Analysis of 'Little r' Restatements*, 29 ACCT. HORIZONS 667 (2015) (finding that 11.8% of "little r" restatements revise net income downwards).

[20] *See* Choudhary *et al.*, *supra* note 18 (finding an average stock price reaction of -3.3% to "Big R" restatements and -0.3% for "little r" restatements); Thompson, *supra* note 7 (finding an average stock price reaction of -1.5% to "Big R" restatements and -0.3% for "little r" restatements).

[21] *See* Proposing Release at 41179.

[22] *See* Proposing Release at 41180 and discussion of the paperwork burdens associated with providing disclosure when a listed issuer completes a restatement that requires recovery of excess incentive-based compensation in Section IV of the Proposing Release. In addition to implementation costs, issuers may incur costs associated with assessing whether "little r" restatements would trigger compensation recovery. However, these assessment costs may be mitigated, if issuers, as part of the materiality analysis relating to errors, already consider whether any misstatement of previously issued financial statements had the effect of increasing management's compensation. *See* Reopening Release at 58236.

[23] *See supra* note 10.

[24] *See supra* note 11.

[25] *See supra* note 14.

[26] *See* Thompson, *supra* note 14.

[27] *See supra* note 12.

[28] *See supra* note 15.

[29] The restatements data was obtained from the Audit Analytics Restatements Database on April 25, 2022. The estimates include restatements by issuers identified as exchange listed by Audit Analytics and Yahoo! Finance and manual staff review as of December 31, 2021. The estimates exclude restatements by SPACs that conducted an initial public offering with a confirmed pricing date between January 1, 2017, and April 30, 2022, based on Dealogic, SPAC Insider, Audit Analytics, and staff manual review of EDGAR filings. "Big R" restatements are identified in the Audit Analytics database as reissuance restatements, and are identified based on a disclosure in an 8-K, Item 4.02.

[30] *See* Audit Analytics, *2021 Financial Restatements: A Twenty-One-Year Review* (May 2021).

[31] *See* Audit Analytics, *supra* note 30.

[32] *See* Audit Analytics, *2020 Financial Restatements: A Twenty-Year Review* (November 2021).

[33] *See* Audit Analytics, *2019 Financial Restatements: A Nineteen-Year Comparison* (July 2020).

[34] *See* Choudhary *et al.*, *supra* note 18. The counts reported from the Choudhary paper are annualized.

[35] *See* Audit Analytics, *supra* note 32. According to the 2021 Audit Analytics report (*supra* note 30), U.S. issuers who are not accelerated filers accounted for approximately 73% of total U.S. issuer restatements in 2021, but this figure reflects an unusually large number of restatements by SPACs.

[36] These estimates are based on the same data sources identified in note 29. Accelerated filer status is based on staff manual review of annual report filings.