

Corporate Tax Planning under the Stock Repurchase Excise Tax

Abstract:

This study provides early evidence on corporate responses to the one percent excise tax on stock repurchases, effective January 2023, which aims to curb stock buybacks. While prior research documents a decline in aggregate buybacks following the tax's implementation, our extended sample reveals that buybacks rebound quickly beginning in late 2023. This pattern suggests that firms do not permanently reduce repurchases as intended by the policy. Instead, firms increase the likelihood of small repurchases below the \$1 million exemption threshold and expand employee stock issuance to offset taxable repurchases. Overall, our findings indicate that firms primarily respond to the excise tax through tax planning strategies rather than materially reducing repurchase activity.

Key Words:

Excise Tax; Inflation Reduction Act; Stock Buyback; Repurchases; Stock Issuance; Stock Compensation Plan.

JEL Classification:

G35, H25, M52

1. INTRODUCTION

Effective January 1, 2023, the U.S. government implemented a one percent excise tax on stock repurchases by publicly traded domestic corporations as part of the *Inflation Reduction Act of 2022* (IRA).^{1,2} While stock repurchases have historically been favored over dividends because of their flexibility and tax efficiency (e.g., Grullon and Michaely, 2002; Brav, Graham, Harvey, and Michaely, 2005; Skinner, 2008), the newly implemented excise tax, imposed at the firm level and non-deductible from income taxes, represents a significant shift in U.S. payout policy. The policy aims to discourage excessive stock buybacks, which lawmakers argue firms use to inflate earnings per share and share prices, often at the expense of investment in employees and long-term growth (Gravelle, 2023; John, Iyer, and Rao, 2024).

Despite this objective, prior studies document an initial decline in stock repurchases following the excise tax's implementation (Autore et al., 2025; Barger et al., 2024), whereas recent aggregate data indicate continued strength in buyback activity, raising questions about the effectiveness of the excise tax in curbing repurchases.³ This apparent contradiction motivates two research questions. First, do firms truly reduce stock repurchases in response to the excise tax, or is the observed decline merely temporary? Second, if the decline is temporary, how do firms reduce their excise-tax exposure, and what tax-planning strategies do they adopt? We address these questions by examining firms' payout behavior and their strategic responses to the excise tax.

In specific, building on early evidence of a sharp decline in repurchases in 2023, we develop hypotheses along three related dimensions. First, we test whether firms exhibit a sustained

¹ For details regarding the excise tax on repurchases of corporate stock under §4501 of the Internal Revenue Code, see IRS Notice 2023-2: <https://www.irs.gov/pub/irs-drop/n-23-02.pdf>

² Despite the subsequent *One Big Beautiful Bill Act* (OBBBA) proposed in 2025 to extend corporate tax cuts, the bill did not repeal or modify the repurchases excise tax (§4501).

³ Reported by S&P Global, see more details: <https://press.spglobal.com/2025-06-25-S-P-500-Q1-2025-Buybacks-Set-Quarterly-Record-at-293-Billion,-Up-20-6,-Helping-EPS-Growth-Impact-and-Expenditures-Expected-to-Decline-in-Q2-2025>

reduction in repurchases following the tax. Second, we examine whether firms temporarily adjust repurchase activity to remain below the \$1 million *de minimis* threshold. Third, focusing on the *netting rule*, which allows taxable repurchases to be offset by shares issued in the same tax year, we analyze whether repurchasing firms increase equity issuance under employee stock compensation and whether they accelerate vesting to facilitate more immediate share delivery. Together, these hypotheses capture corporate responses along payout structure, equity quantity, and equity timing dimensions.

Using an extended sample of U.S. public firms through 2025, we find that the initial decline in repurchases following the excise tax is short-lived. Repurchase activity begins to rebound in late 2023 and continues to rise thereafter, while dividend payouts remain largely unchanged. Regression analyses indicate that although firms reduce repurchases immediately after the tax takes effect, this decline becomes statistically insignificant by 2025. We also find no significant change in dividend payouts but observe a temporary decline in total payout, suggesting that firms adjust temporarily rather than fundamentally altered their payout policies in response to the new regulation.

We further examine firms' use of the *de minimis* exemption, which excludes repurchases from taxation when annual repurchases do not exceed \$1 million. We find that firms become more likely to keep annual repurchases below this threshold immediately after the excise tax is implemented, consistent with short-run adjustment along this statutory margin. However, this behavior attenuates over time, indicating that the *de minimis* exemption serves primarily as an initial response rather than a persistent strategy.

Beyond payout adjustments, we provide the first empirical evidence on firms' use of the *netting rule*, allowing firms to offset their taxable repurchases by the fair market value of shares

issued during the same taxable year. Using equity issuance data of employee stock compensation, we find that repurchasing firms significantly increase shares issued to employees following the excise tax, with responses concentrated in stock options and restricted stock units. At the grant stage, the increase is driven primarily by stock options, potentially reflecting their lower grant-date fair values relative to full-value equity awards. We further document accelerated share delivery, reflected in shorter remaining vesting periods for non-option equity awards, consistent with firms seeking more timely issuance. In contrast, we find no systematic changes in shares issued or granted to executive, suggesting that firms rely primarily on broad employee equity compensation, rather than executive pay, as their main tax-planning channel.

We also examine heterogeneity in firms' responses across industry and ownership characteristics. Technology firms maintain higher repurchase activity throughout 2023 and 2024, consistent with their substantial cash reserves and greater payout flexibility. Firms with higher transient institutional ownership are more likely to sustain or slightly increase repurchases following the excise tax, whereas firms with greater ownership by long-term oriented institutional investors (quasi-indexers and dedicated investors) reduce repurchases more persistently. These findings highlight variation in corporate responses across ownership structures and industries, suggesting that the effectiveness of the excise tax depends on firms' investor composition and sectoral characteristics.

To strengthen identification, we conduct a placebo analysis using Canadian firms constructed under the same criteria. Because Canadian firms face similar macroeconomic conditions but are not subject to the U.S. excise tax, the absence of comparable post-period changes among Canadian firms supports a causal interpretation of the excise tax effect. And we also examine employee and executive compensation, because compensation expense recognition under

GAAP differs from the timing of equity issuance. We find no significant change in equity, cash, or total compensation at either the employee or executive level, reinforcing our main findings that firms primarily engage in tax planning rather than reallocating resources toward workforce pay.

This study makes several contributions. First, research on the stock repurchase excise tax is in its early stages, and existing studies are scarce. The current evidence focuses mainly on the short-run effects of the tax on aggregate payout levels (Autore et al., 2025; Bargeron et al., 2024). We extend early empirical evidence by incorporating data through 2025. Our findings show that this effect was temporary, with repurchases rebounding quickly to record highs, indicating that the excise tax has not achieved its intended objective of curbing repurchase activity.

Second, we provide the first empirical evidence on firms' use of statutory adjustment channels embedded in the excise tax. In particular, we document corporate tax planning through small repurchases under de minimis threshold as well as through employee equity issuance, option grants, and accelerated vesting under the netting rule. Together, these analyses shed light on how firms preserve repurchase activity by adjusting behavior along multiple dimensions following the excise tax.

Third, this paper contributes to ongoing debates on payout policy and corporate taxation by providing early evidence on how firms adapt to a transaction-based excise tax. Our analysis suggests that firms primarily manage tax exposure through tax-planning mechanisms rather than materially reducing repurchase activity, highlighting practical limits of excise tax in reshaping corporate payout behavior. These findings underscore the importance of regulation design in influencing corporate financial decisions and provide timely insights for policymakers and researchers evaluating the long-run effectiveness of the excise tax.

Finally, consistent with recent academic calls to expand scope of tax accounting research beyond income taxes (Dyreng, Hoopes, and Maydew, 2025), this study examines corporate behavior under an emerging form of excise tax introduced under the Inflation Reduction Act. Our findings illustrate how even a modest transaction-based tax can reshape compliance strategies, highlighting the broader role of taxation in corporate financial decision-making.

The remainder of the paper is organized as follows. Section 2 provides background on the stock repurchase excise tax, reviews related literature, and develops hypotheses. Section 3 describes the data and research design. Section 4 reports the main empirical results. Section 5 presents results of cross-sectional analyses and robustness tests. Section 6 concludes the paper.

2. BACKGROUND, LITERATURE REVIEW, AND HYPOTHESES DEVELOPMENT

2.1. Background

The IRA, signed into law by President Joe Biden on August 16, 2022, is a comprehensive legislative package aimed at addressing climate change, healthcare affordability, energy security, fiscal responsibility, and inflationary pressures in the U.S. economy.⁴ The IRA introduced a new one percent excise tax on corporate stock repurchases, effective for repurchases made after December 31, 2022. The provision was originally introduced in Congress through the *Build Back Better Act* (BBBA) in September 2021 with a two percent proposed rate, and the Administration later suggested raising the rate to four percent. Although these proposals stalled, the measure was ultimately enacted at a one percent rate in August 2022.

The excise tax is codified under Internal Revenue Code §4501. Covered corporations (generally U.S. publicly-traded domestic corporations) are subject to a tax equal to one percent of the fair market value of stock repurchased during the taxable year, subject to a variety of defined

⁴ See details of the *Inflation Reduction Act* (IRA): <https://www.irs.gov/inflation-reduction-act-of-2022>

exceptions. For example, the statute provides a *de minimis* exception for firms with total repurchases of \$1 million or less per year, and a *netting rule* that allows firms to reduce the taxable base by the value of stock issued to the public or to employees during the same period.⁵ The tax is nondeductible for income tax purposes, further distinguishing it from traditional corporate tax obligations.

The excise tax serves several policy objectives: First, it aims to generate federal revenue, with the Joint Committee on Taxation estimating total proceeds of approximately \$74 billion over a decade.⁶ However, according to the IRS *Statistics of Income* (SOI), collections for the first full year of implementation (2024) amounted to only US \$4.54 billion.⁷ Second, the tax seeks to encourage firms to reevaluate their payout structures, redirecting funds from excessive buybacks towards investment or workforce (John et al., 2024). Finally, by raising the cost of buybacks, the tax implicitly tends to moderate wealth concentration and reduce practices that disproportionately benefit large shareholders and managers (Gravelle, 2023).

2.2. Literature Review

Stock repurchases have long been one of the dominant mechanisms for returning capital to shareholders. Prior research emphasizes their flexibility, signaling effects, and tax advantages relative to dividends (Grullon and Michaely, 2002; Brav et al., 2005; Skinner, 2008). However, long-standing concerns suggest that excessive repurchases may contribute to earnings manipulation (Hribar et al., 2006), equity-incentive alignment (Babenko, 2009), EPS metrics inflation (Almeida et al., 2016), income inequality (Lazonick, 2014), and investment inefficiency

⁵ For details of rulemaking of the excise tax on corporate stock repurchases, see documents provided by the IRS: <https://www.federalregister.gov/documents/2024/04/12/2024-07117/excise-tax-on-repurchase-of-corporate-stock>

⁶ The Joint Committee on Taxation (JCT) estimates this provision to raise \$74 billion over the FY2022- FY2031 period.

⁷ See more details from the IRS *Statistics of Income* (SOI), 28-Aug-2025: <https://www.irs.gov/statistics/soi-tax-stats-historical-table-20>

(Grullon and Michaely, 2002), which have drawn increasing attention from regulators and academics.

The introduction of the excise tax marks a new phase in corporate payout regulation. Early empirical studies on this policy remain limited and focus primarily on its impact on payout behavior. Autore et al. (2025) document a 25 percent decline in aggregate U.S. share repurchases from 2022 to 2023 and find that firms increased cash holdings but did not significantly expand investment. Barger et al. (2024) report a five to 10 percent decrease in repurchases after the tax took effect, using data from 2004 to 2023, while contemporaneous dividend increases failed to offset the cuts, implying a temporary rather than structural adjustment in payout policy.

More recent research examines stock repurchases but discusses the new excise tax only as a policy implication rather than through direct empirical testing. For example, John et al. (2024) employ data from 2004 to 2019 and find no evidence that repurchases reduce hiring, employee pay, or pension funding, suggesting that some regulatory concerns may be overstated. Kisgen, Kong, and Fu (2025) use Census data from 1982 to 2016 to test whether repurchases drive declines in labor share and find no such relation, implying that repurchase taxes may not effectively improve worker outcomes. DeAngelo, Kahle, and Skinner (2025) revisit the agency-cost framework of payout policy and note that the recent politicization of buybacks reflects ongoing debates over efficient capital allocation.

Existing studies on the stock repurchase excise tax remain scarce. The current evidence focuses mainly on the short-run effects of the tax on aggregate payout levels but leaves open questions about how firms adjust their compliance behavior under the law. In particular, the excise tax creates new opportunities for tax planning, such as exploiting exception rules to minimize tax liabilities. Our study fills this gap by extending the sample period through 2025 and documenting

how firms adapt their payout, stock issuance, and compensation decisions to the new excise tax policy.

2.3. Research Questions and Hypothesis Development

The introduction of the 1% excise tax on stock repurchases represents a novel firm-level tax on corporate payouts. Early evidence documents a sharp decline in repurchase activity immediately following the tax's implementation. However, recent market data indicate that aggregate buybacks rebounded quickly and reached record levels.⁸ This apparent contradiction raises two central research questions. First, are firms truly cutting buybacks, or is the observed decline merely temporary? Second, how do firms reduce their excise-tax exposure—that is, what tax-planning strategies do they adopt?

We organize our hypotheses around these two questions by examining firms' payout adjustments and several potential tax-minimization channels explicitly embedded in the statute.

2.3.1. Payout Adjustments Following the Excise Tax

A key distinction between dividends and stock repurchases as corporate payout mechanisms lies in their tax treatment: Dividends are immediately taxable at the shareholder level, whereas taxes on repurchases are deferred until shareholders realize capital gains (Blouin, Raedy, and Shackelford, 2011). The introduction of the one percent excise tax on repurchases represents a fundamental change to this landscape. Because the tax is imposed at the firm level and non-deductible for corporate income tax purposes, it erodes the relative tax advantage of stock repurchases. Consequently, firms may reduce buyback activity to mitigate the additional cost

⁸ Aggregate stock buybacks reached a record \$942.5 billion in 2024 and are projected to increase further to \$1.2 trillion in 2025. See more details from article from The Motley Fool (2025): <https://www.fool.com/research/stock-buyback-statistics>

associated with the new tax. Indeed, early empirical work by Autore et al. (2025) and Barger et al. (2024) documents a measurable decline in repurchases following the tax's enactment.

However, many firms rely on buybacks as their primary payout channel, and abandoning repurchases entirely may be costly due to signaling considerations, payout flexibility, and investor expectations. Moreover, critics argue that the one percent statutory rate is relatively small, firms may not view the excise tax as large enough to permanently alter their reliance on share repurchases. Instead, firms may temporarily delay buybacks while adapting their payout structures and exploring tax-planning opportunities.

Consistent with these competing forces, firms may also reallocate capital toward dividends without materially altering total payouts (Grullon and Michaely, 2002). Accordingly, we frame our first set of hypotheses in neutral form, examining both repurchases and dividends using extended data through 2025. These hypotheses address whether the post-tax decline in repurchases reflects a permanent contraction in payout policy or a transitional response.

- *H1a: Firms exhibit no sustained change in stock repurchases following the excise tax.*
- *H1b: Firms exhibit no sustained change in dividends following the excise tax.*

2.3.2. Small Repurchases via the De Minimis Exception

Beyond aggregate payout adjustments, the statute's limited scope creates potential avoidance opportunities. Specifically, §4501(e)(3) provides a *de minimis exception* that exempts firms if their aggregate fair market value of repurchases of their stock does not exceed \$1,000,000 within a taxable year.⁹ Although this threshold is small relative to typical repurchase volumes, it offers a simple and readily implementable mechanism for reducing tax exposure, particularly in the initial period following the tax's introduction.

⁹ See Internal Revenue Code section 4501(e)(3): [https://uscode.house.gov/view.xhtml?req=\(title:26%20section:4501%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:26%20section:4501%20edition:prelim))

Firms facing uncertainty about the new regulation or lacking established tax-planning structures may respond by temporarily scaling back repurchases to remain below the de minimis threshold, while continuing to rely on buybacks as a payout channel. Such behavior would be consistent with an early-stage adjustment, prior to the adoption of more sophisticated strategies. Accordingly, we examine whether firms are more likely to constrain repurchases to fall below the de minimis threshold after the excise tax takes effect:

- *H2: Firms increase the likelihood of small repurchases (below \$1 million annually) following the excise tax.*

2.3.3. Tax Planning through Employee Stock Issuance (Netting Rule)

Under §4501(c)(3) of the Internal Revenue Code, corporations may offset their taxable repurchase base with stock issued during the same taxable year, including shares issued to employees under equity compensation plans such as stock options, restricted stock units, or other compensation plans.¹⁰ This provision, commonly referred to as the *netting rule*, creates a potential tax-planning channel through employee stock plans, allowing firms to reduce their excise-tax base while maintaining repurchase activity.

Because employee equity compensation is a common and flexible issuance mechanism, firms may respond to the excise tax by increasing employee stock issuance in order to reduce their taxable repurchase base while maintaining flexibility in capital distribution. In addition to adjusting the quantity of equity awards, firms may also influence the timing of share delivery by modifying vesting schedules. Shortening vesting periods can thus accelerate the conversion of granted equity into issued shares, enhancing the effectiveness of the netting rule in offsetting taxable repurchases. Together, changes in issuance, grants, and vesting represent complementary

¹⁰ See Internal Revenue Code section 4501(c)(3): [https://uscode.house.gov/view.xhtml?req=\(title:26%20section:4501%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:26%20section:4501%20edition:prelim))

margins through which firms can manage excise-tax exposure. Accordingly, we examine whether repurchasing firms adjust employee and executive equity compensation following the excise tax along both the quantity and timing dimensions:

- *H3a: Repurchasing firms increase shares issued under employee stock compensation plans relative to non-subject firms following the excise tax.*
- *H3b: Repurchasing firms increase shares issued under executive stock compensation plans relative to non-subject firms following the excise tax.*
- *H3c: Repurchasing firms shorten the remaining vesting period of employee stock compensation plans relative to non-subject firms following the excise tax.*

3. DATA AND SETTING

The IRA of 2022 introduced a one percent excise tax on corporate stock repurchases, effective January 1, 2023. The tax applies to the fair market value of repurchased shares executed during the taxable year, but provides two key exclusions. First, repurchases not exceeding one million dollars per taxable year are exempt from the tax. Second, firms may offset repurchases with equity issuances to employees or executives through stock options, restricted stock units, or other compensation plans. These features create potential incentives for firms to adjust payout composition or structure transactions strategically. For example, firms may substitute small repurchases for large ones or increase equity issuance to employees and executives to minimize exposure to the excise tax.

Autore et al. (2025) examine firm stock repurchase and dividend payout trends following the implementation of the IRA's excise tax provisions using firm-quarter data from 2022 to 2023. To further investigate firms' long-term responses, we extend Autore et al. (2025) by assembling a firm-quarter sample from Compustat Quarterly Fundamentals covering the period 2019 Q1

through 2025 Q2. Using this extended dataset, we document the long-term trends in firms' stock repurchase and dividend payout policies.

We then combine data from Compustat Annual and Quarterly Fundamentals, Calcbench (for firm equity awards to employees), and ExecuComp (for executive equity exercised and total compensation) for the period 2022 to 2024 to test how firms adjust their payout and compensation practices to mitigate the impact of the excise tax. Because each test relies on different data sources and research designs, the effective sample differs across hypotheses. Quarterly panels are used for payout analyses, while annual panels are used for equity issuance and compensation outcomes. Section 4 presents the empirical analyses for each hypothesis, with each subsection describing the corresponding sample selection, research design, and empirical results.

4. EMPIRICAL ANALYSES

4.1. H1: Changes in Stock Repurchases and Dividends

To examine how firms adjust their payout policies following the introduction of the IRA excise tax, we begin with a descriptive analysis of stock repurchases and dividend payouts over the period 2019 Q1 through 2025 Q2. Stock repurchases are obtained from Compustat Quarterly Fundamentals (*PRSTKCY*), which reports the cumulative year-to-date amount of stock repurchases. We convert the year-to-date value to a quarterly flow by differencing consecutive observations within each fiscal year. Following Autore et al. (2025), quarterly stock repurchases are scaled by the market value of equity to facilitate comparability across firms and over time. Dividends are defined as the ratio of dividends to the market value of equity, consistent with Kumar and Vergara-Alert (2020). Using these standardized measures, we plot quarterly averages of corporate payouts from 2019 Q1 through 2025 Q2. Figures 1 and 2 display the time-series patterns of stock

repurchases and dividend payouts, respectively, around the implementation of the excise tax provisions.

Figure 1 plots the trend in mean stock repurchases scaled by the market value of equity. The vertical dashed line marks 2023 Q1, when the IRA's one-percent excise tax on corporate stock repurchases became effective. The figure shows that, following the implementation of the excise tax in 2023, there is a modest drop in the mean stock repurchase, but repurchases appear to rebound starting from 2023 Q4 and continue to rise through 2025, indicating that the initial impact of the tax may have been temporary. Besides, stock repurchases declined sharply in 2020 and gradually recovered through 2022, consistent with the widespread payout suspensions during the COVID-19 pandemic. The post-COVID rebound suggests that firms resumed normal payout policies once market uncertainty subsided.

Figure 2 presents the corresponding trend in mean dividend yields. Dividend yields exhibit a pronounced spike in 2020, which likely reflects firms' efforts to maintain shareholder distributions while curtailing repurchases during the pandemic. Dividends then decline sharply in 2021 and remain relatively stable thereafter. Around the 2023 Q1 policy implementation, dividend yields show only minor variation, suggesting that dividends were less sensitive to the excise tax than repurchases. Together, the two figures indicate that payout policies were strongly influenced by the economic disruptions of COVID-19, while the IRA excise tax produced a more moderate and short-term adjustment in repurchase activity.

[Insert Figure 1 Here]

[Insert Figure 2 Here]

To provide further evidence, we estimate the following Models (1) and (2) to formally test whether corporate payout behavior changed after the implementation of the IRA excise tax.

Because the descriptive figures reveal a sharp but temporary disruption in corporate payouts during the COVID-19 period, we restrict the regression sample to 2022 Q1 through 2025 Q2 to focus on post-pandemic trends surrounding the introduction of the excise tax.

$$PAYOUT_{i,q} = \beta_0 + \beta_1 POST_TAX_{i,q} + CONTROL + FIRM\ FE + YEAR_QUARTER\ FE + \varepsilon_{i,q} \quad (1)$$

$$PAYOUT_{i,q} = \beta_0 + \beta_1 YR2023_{i,q} + \beta_2 YR2024_{i,q} + \beta_3 YR2025_{i,q} + CONTROL + FIRM\ FE + YEAR_QUARTER\ FE + \varepsilon_{i,q} \quad (2)$$

In Model (1), *POST_TAX* is an indicator variable that equals one for quarters after the implementation of the excise tax (2023 Q1 – 2025 Q2) and zero otherwise (2022 Q1 – 2022 Q4). This specification provides an estimate of the average change in payout behavior following the introduction of the excise tax. Model (2) further decomposes the post-tax indicator into separate year effects to capture potential heterogeneity in firms' responses over time. *YR2023*, *YR2024*, and *YR2025* are indicator variables equal to one for observations in the corresponding calendar years and zero otherwise.

In both models, the dependent variable *PAYOUT* represents one of three measures: (1) *REPURCHASE*, measured as quarterly stock repurchases scaled by the market value of equity; (2) *DIVIDENDS*, measured as dividends divided by the market value of equity; or (3) *PAYOUT*, the sum of the two. The control variables include firm-level and macroeconomic control variables that may influence payout decisions. Firm-level controls include firm size (*SIZE*), liquidity (*QUICK*), leverage (*LEVERAGE*), sales growth (*SALE_GROW*), profitability (*ROA*), market-to-book ratio (*MTB*), cash-flow volatility (*STD_CFO*), and sales volatility (*STD_SALES*). To capture broader economic fluctuations, we also include the quarterly GDP growth rate (*GDP_GROWTH*) and the

quarterly return of the S&P 500 index (*S&P500_RETURN*). All regressions include firm fixed effects and year-quarter fixed effects, and standard errors are clustered at the firm level.¹¹ Appendix A defines all variables used in the analysis.

Table 1 reports the summary statistics for the variables used in each analysis. On average, firms repurchased 0.4 percent of their market value each quarter (*REPURCHASE*) and distributed dividends equivalent to 0.3 percent (*DIVIDENDS*), resulting in an average total payout of 0.8 percent (*PAYOUT*). The mean of *POST_TAX* is 0.699, indicating that approximately 70 percent of the sample firm-quarter observations occur after the policy implementation. The indicator variables *YR2023*, *YR2024*, and *YR2025* represent individual years within the post-tax period, with respective frequencies of 28.1 percent, 28.3 percent, and 13.5 percent of total observations.

[Insert Table 1 Here]

Table 2 presents the regression results examining changes in stock repurchases, dividend yields, and total payouts after the introduction of the IRA excise tax. The final sample for this analysis includes 47,924 firm-quarter observations from 2022 Q1 through 2025 Q2. Columns (1), (3), and (5) report the baseline results using Model (1) with the single post-tax indicator (*POST_TAX*), while Columns (2), (4), and (6) present the year-by-year results from Model (2).

[Insert Table 2 Here]

The estimates in Columns (1) and (2) show that stock repurchases declined significantly after the implementation of the excise tax. Specifically, in the pooled post-tax specification, the coefficient on *POST_TAX* is -0.007 ($t = -5.74$), indicating that, on average, firms reduced quarterly repurchases by about 0.7 percent of market value relative to the pre-tax period. This decline

¹¹ Year-quarter fixed effects introduce substantial multicollinearity with the key independent variables (*POST_TAX*, *YR2023*, *YR2024*, and *YR2025*). However, we retain them in Models (1) and (2) to maintain consistency with the research design of Autore et al. (2025). Excluding the year-quarter fixed effects yields quantitatively similar results. To avoid this multicollinearity concern, we exclude year-quarter fixed effects from all subsequent models.

represents nearly twice the sample mean of stock repurchases (*REPURCHASE*). When the post-tax period is decomposed by year, the coefficients on *YR2023* and *YR2024* remain negative and significant (for *YR2023*, -0.001 , $t = -2.21$; for *YR2024*, -0.001 , $t = -2.43$), while *YR2025* becomes insignificant. This pattern suggests an immediate decline in repurchase activity following the tax's introduction, followed by a partial recovery in later years.

Columns (3) and (4) report the results for dividend yields (*DIVIDENDS*). The coefficient on *POST_TAX* is statistically insignificant (-0.000 , $t = -0.80$), implying that dividends did not change materially after the excise tax took effect. The annual specification reveals a temporary increase in 2023 (0.001 , $t = 3.73$), consistent with Autore et al. (2025), but no significant differences in 2024 or 2025. This pattern suggests that firms may have substituted dividends for repurchases immediately after the tax implementation. Columns (5) and (6) combine repurchases and dividends to measure total payouts. The negative coefficient on *POST_TAX* (0.009 , $t = -5.90$) indicates that total payouts declined in the immediate post-tax period. When disaggregated by year, only the coefficient on *YR2024* remains negative and significant, while *YR2025* becomes statistically insignificant, mirroring the gradual recovery observed in repurchases.

Overall, the results suggest that the IRA excise tax temporarily reduced stock repurchases and total payouts, while dividend distributions remained largely stable. The evidence is consistent with firms initially curtailing repurchases to adjust to the new tax regime and later normalizing their payout behavior as the market absorbed the policy change.

4.2. H2: Tax Planning through Small Repurchases (\leq \$1 Million)

The IRA excise tax provisions exempt firms whose total annual stock repurchases does not exceed one million dollars from the one-percent tax. This exemption creates potential incentives for firms to restructure their payout activities by conducting smaller repurchases to remain below

the taxable threshold. To examine this possibility, we first provide descriptive evidence by plotting the frequency of small repurchases over time from 2019 Q1 through 2024 Q4. The sample ends in 2024 Q4 because the transaction-level repurchase data for 2025 are incomplete, with only two quarters available. A small repurchase (*REP_SMALL*) is defined as one where a firm’s total annual repurchase amount does not exceed one million dollars, and zero otherwise.

Figure 3 illustrates the mean frequency of such small repurchases, with the vertical dashed line marking the beginning of 2023, when the IRA excise tax provisions became effective. The figure shows that the frequency of small repurchases exhibits a noticeable uptick in the first quarter of 2023 and then gradually decreases. This pattern is consistent with firms temporarily adjusting their repurchase activities to stay below the one-million-dollar threshold immediately after the excise tax took effect, followed by a gradual decline as the initial adjustment effect dissipated. The subsequent decrease likely reflects that firms found alternative ways to mitigate the tax burden, such as increasing equity issuance to employees, which allowed them to maintain their usual repurchase patterns.

[Insert Figure 3 Here]

We then estimate Models (3) and (4) to examine the impact of the IRA excise tax provisions on the likelihood of small repurchases using a firm-quarter panel from 2022 Q1 through 2024 Q4. The sample begins in 2022 to avoid potential distortions from the COVID-19 period. In these models, we include firm fixed effects only, as incorporating year–quarter fixed effects introduces substantial multicollinearity with the key independent variables (*POST_TAX*, *YR2023*, and *YR2024*).

$$REP_SMALL_{i,q} = \beta_0 + \beta_1 POST_TAX_{i,q} + CONTROL + FIRM\ FE + \varepsilon_{i,q} \quad (3)$$

$$REP_SMALL_{i,q} = \beta_0 + \beta_1 YR2023_{i,q} + \beta_2 YR2024_{i,q} + CONTROL + FIRM\ FE + \varepsilon_{i,q} \quad (4)$$

According to Table 1, the mean of *REP_SMALL* is 0.449, implying that about 45 percent of firm-quarters in the sample are associated with annual repurchases below the \$1 million threshold. Table 3 reports the regression results for Models (3) and (4). The coefficient on *POST_TAX* in Column (1) is 0.018 ($t = 2.68$), indicating that the probability of conducting small repurchases increased significantly after the introduction of the excise tax. This effect represents a moderate rise of approximately 1.8 percentage points, relative to a sample mean of 44.9 percent. When the post-tax period is disaggregated by year in Column (2), the coefficient on *YR2023* remains positive and significant (0.014, $t = 2.23$), suggesting that firms were more likely to keep their annual repurchases not exceeding one million dollars in the first year following the tax's implementation. In contrast, the coefficient on *YR2024* is negative and statistically insignificant (-0.002, $t = -0.31$), implying that the behavioral adjustment did not persist into the following year.

[Insert Table 3 Here]

Overall, the results suggest that firms exhibited temporary tax-avoidance behavior in 2023, increasing the frequency of small repurchases to circumvent the excise tax. This adjustment appears to diminish by 2024, indicating that the response was short-lived rather than a sustained strategic shift. The modest economic magnitude suggests that conducting small repurchases is not the primary mechanism through which firms avoid the excise tax. Instead, other avoidance strategies, such as increasing equity issuance to employees or executives to offset taxable repurchases, may have been more prevalent.

4.3. H3a: Tax Planning through Stock Issuance to Employees

The IRA excise tax allows firms to exclude equity issued to employees and executives, such as stock options, restricted stock units (RSUs), employee stock purchase plans (ESPPs), and other compensation, from the repurchase tax base. This exemption, referred to as the *netting rule*,

may create incentives for firms to increase equity issuance to offset taxable repurchases while maintaining overall payout levels.

To test this prediction, we construct a firm-year panel covering 2022 to 2024. The sample begins in 2022 to avoid the potential impact of COVID-19 and extends through 2024, the most recent complete year of data available. Because firms typically report equity compensation on an annual basis, the analysis is conducted at the firm-year level. We obtain data on shares issued to employees through equity compensation plans from Calcbench, which covers all public firms that disclose equity compensation plan information in their annual reports and includes 11,440 firm-year observations.

We estimate the following regression to examine whether firms that are subject to the excise tax increased equity issuance after its implementation:

$$EQ_ISSUE_{i,t} = \beta_0 + \beta_1 REP_FIRM_{i,t} + \beta_2 POST_TAX_{i,t} + \beta_3 REP_FIRM_{i,t} * POST_TAX_{i,t} + CONTROL + FIRM\ FE + \varepsilon_{i,t} \quad (5)$$

The dependent variable, *EQ_ISSUE*, represents one of several measures capturing the number of shares issued to employees or executives, standardized by the total number of common shares outstanding and multiplied by 100. This measure reflects the percentage of shares issued via equity compensation plans relative to total shares outstanding.¹² Specifically, we examine five measures: (1) total equity issuance (*EQ_AWARD*) that represent the sum of stock options, restricted stock units, employee benefit plans, and employee stock purchase plans, (2) stock options (*OPTIONS*), (3) restricted stock units (*RSU*), (4) employee benefit plans (*EBP*), and (5) employee

¹² We measure equity issuance by the number of shares exercised, rather than the dollar value of awards. Using share counts avoids distortions caused by variations in stock prices or option strike prices, which can inflate the reported dollar value of awards even when relatively few shares are issued. For example, a firm with a high stock price could report a large dollar amount of equity compensation despite issuing fewer shares, masking the true extent of equity issuance activity.

stock purchase plans (*ESPP*).¹³ The independent variable, *REP_FIRM*, is an indicator that equals one for firm-years whose annual repurchases exceed one million dollars and zero otherwise. *POST_TAX* equals one for years 2023 and 2024, when the IRA excise tax was in effect, and zero for 2022. The interaction term *REP_FIRM*POST_TAX* captures whether firms subject to the excise tax increased equity issuance after the policy took effect.

Table 1 presents descriptive statistics for all variables used in the analysis. On average, 53.3 percent of firm-years are classified as repurchase firms (*REP_FIRM*). The mean total issuance to employees (*EQ_AWARD*) accounts for about 1.353 percent of total shares outstanding, with restricted stock units (*RSU*) and stock options (*OPTIONS*) representing the largest components.

Table 4, Panel A, presents the results for employee stock issuance. The coefficient on the interaction term *REP_FIRM*POST_TAX* is positive and significant across total equity awards (*EQ_AWARD*, 0.204, $t = 2.43$) and the main award components, stock options (*OPTIONS*, 0.062, $t = 2.58$) and restricted stock units (*RSU*, 0.108, $t = 2.97$). The positive coefficients suggest that repurchasing firms increase equity issuance to employees after the implementation of the excise tax provisions, consistent with firms using employee equity issuance to offset taxable repurchases. The results for employee benefit plans (*EBP*) are positive but insignificant (0.001, $t = 1.55$), while those for employee stock purchase plans (*ESPP*) are slightly negative and marginally significant (-0.006, $t = -1.78$). These mixed results may be due to the fact that only a small number of firms issued through *EBP* (216 firm-years) and *ESPP* (2,100 firm-years), compared to 5,004 firm-years issued through *OPTION* and 6,502 firm-years issued through *RSU*. The results may also indicate

¹³ Employee stock compensation plans vary in type across U.S. public firms. Research shows that stock options and restricted stock units (RSUs) are the most commonly used equity awards, appearing in the majority of firms' compensation packages (e.g., Hall and Murphy, 2002, 2003; Core & Guay, 2001; Carter, Lynch & Tuna, 2007).

that adjustments were concentrated in stock-based compensation, particularly RSUs and stock options, rather than broad-based employee purchase programs.

While share issuance reflects the actual delivery of shares, issuance may occur years after awards are granted due to vesting schedules and exercise timing. In contrast, stock grants capture firms' immediate compensation design choices and therefore provide a more direct measure of managerial responses to the excise tax. If firms actively exploit the netting rule to offset taxable repurchases, they may increase employee stock grants following the tax's implementation. Therefore, we further test whether repurchasing firms exhibit any change in employee stock grants following the excise tax.

Table 4, Panel B, reports results for employee stock grants. The dependent variable, *EQ_Grant*, represents one of several measures of stock compensation plans capturing the number of shares granted to employees, standardized by the total number of common shares outstanding and multiplied by 100. Although we do not find any systematic change in the total stock grants (*EQ_Grant*) or restricted stock units (*RSU_Grant*), we document a significant increase in shares granted to employee stock options (*OPT_Grant*, 0.138, $t = 2.49$) among repurchasing firms following the excise tax. Consistent with prior literature showing that stock options typically have lower grant-date accounting values than full-value equity awards and are commonly used to provide equity incentives while managing reported compensation costs (e.g., Hall and Murphy, 2002, 2003), this pattern suggests that firms may favor option grants when adjusting employee equity awards under the netting rule. These results indicate that firms actively adjust grant policies as part of their tax-planning response.

[Insert Table 4 Here]

4.4. H3b: Tax Planning through Stock Issuance to Executives

In addition to broad employee equity compensation, we examine equity issuance and grants to executives, including all executives as well as separately for CEOs and CFOs, using data from ExecuComp, which primarily reports stock option awards. ExecuComp primarily covers firms included in or formerly part of the S&P 1500 that remain publicly traded. These differences in data sources explain the coverage variation across analyses with only 4,088 firm-year observations for the issuance-to-executive tests.

Testing executive equity compensation allows us to assess whether firms extend the netting rule to top management or instead rely primarily on broad-based employee plans. We focus on stock options exercised by executives, including (1) all executives (*OPTION_EXE*), (2) CEOs (*OPTION_CEO*), and (3) CFOs (*OPTION_CFO*). According to Table 1 descriptive statistics, executive option exercises (*OPTION_EXE*) represent approximately 0.068 percent of firms' total shares outstanding, with an average of 0.034 percent exercised by CEOs (*OPTION_CEO*) and 0.006 percent by CFOs (*OPTION_CFO*).

Table 5, Panel A, reports results for executive stock option exercises, and Panel B reports results for executive stock option grants. The interaction term *REP_FIRM*POST_TAX* is positive in all specifications, though smaller in magnitude and less significant than in the issuance-to-employee tests. The coefficients are 0.006 ($t = 0.42$) for all executives, 0.002 ($t = 0.16$) for CEOs, and 0.002 ($t = 1.61$) for CFOs. In contrast to employee equity awards, we find no significant changes in executive stock issuance or option grants following the excise tax, either for the full executive group or for CEOs and CFOs individually. These results suggest that firms do not systematically adjust executive equity compensation in response to the excise tax. One potential

explanation is that executive compensation is subject to governance constraints, pay-performance considerations, and shareholder scrutiny, making it less flexible as a tax-planning instrument.

Taken together, the results support the notion that firms partially substituted taxable repurchases with equity issuance to employees, consistent with exploiting the excise tax exemption. The stronger effects among employees than executives suggest that firms may have relied more on broad-based equity programs to offset repurchases, possibly due to their greater scalability and lower visibility.

[Insert Table 5 Here]

4.4. H3c: Tax Planning through Vesting Period Adjustments

Beyond increasing issuances of employee stock compensation, firms may also accelerate the vesting of equity awards to facilitate faster share issuance and thereby reduce excise-tax exposure. Shortening vesting periods allows firms to convert granted equity into issued shares more quickly, strengthening the effectiveness of the netting rule. To examine whether firms adjust the timing of equity delivery, we analyze changes in remaining vesting periods following the excise tax as the dependent variable. The remaining vesting period is measured as the weighted-average remaining requisite service period (in years) for unvested stock option awards (*OPT_VEST*) and other unvested stock compensation (*OTHER_VEST*), where weights are based on remaining unrecognized stock-based compensation expense, as disclosed under ASC 718.

Table 6 reports results for the remaining vesting period of unvested stock compensation. We find that the remaining vesting period of other equity compensation (*OTHER_VEST*, -0.082 , $t = 1.79$) becomes marginally shorter following the excise tax, while vesting periods for stock options (*OPT_VEST*) remain unchanged. For non-option equity awards such as restricted stock units, shares are issued automatically upon vesting, whereas stock options require employee

exercise and therefore provide firms with less control over issuance timing. These results support H3c and suggest that firms selectively accelerate the vesting of non-option awards following the excise tax, thereby enabling more immediate issuance.

Overall, we find consistent evidence that repurchasing firms exploit the netting rule by relying on employee equity compensation to manage excise-tax exposure. Following the implementation of the excise tax, repurchasing firms increase employee stock issuance, primarily through stock options and restricted stock units, consistent with using employee equity issuance to offset taxable repurchases under the netting rule. At the grant stage, the increase is concentrated in stock options, suggesting that firms favor cost-efficient issuance mechanisms. In addition, firms accelerate the delivery of equity awards, as reflected in shorter remaining vesting periods for non-option equity compensation, which directly converts granted equity into issued shares upon vesting. Together, these results indicate that firms adjust both the quantity and timing of employee equity awards to preserve buyback activity while minimizing excise-tax liability.

[Insert Table 6 Here]

5. ADDITIONAL ANALYSES

5.1. Technology Firms

We further investigate whether the impact of the IRA excise tax on stock repurchases differs between technology firms and firms in other sectors. Technology firms often have distinctive financial characteristics, including higher cash reserves, greater reliance on compensation, and more flexible payout policies compared to firms in traditional industries. These attributes may influence how such firms respond to a new tax on share repurchases. A firm is classified as a technology firm ($TECH = 1$) if its two-digit SIC code equals 35 (industrial and computer equipment), 36 (electronic and electrical equipment), 48 (communications), or 73

(business services, including software and information technology). Firms in all other industries are classified as non-technology firms. In our sample, 29.9 percent of firm-quarter observations are identified as technology firms.

We estimate the following Model (6) using a firm-quarter panel from 2022 Q1 to 2024 Q4. The interaction term $TECH * POST_TAX$ captures whether the change in repurchase activity after the IRA excise tax differs between technology and non-technology firms.

$$REPURCHASE_{i,q} = \beta_0 + \beta_1 TECH_{i,q} + \beta_2 POST_TAX_{i,q} + \beta_3 TECH_{i,q} * POST_TAX_{i,q} + CCONTROL + FIRM FE + \varepsilon_{i,t} \quad (6)$$

Table 7 reports the regression results. The coefficient on $TECH * POST_TAX$ is positive and highly significant (0.001, $t = 4.24$), indicating that technology firms were less affected by the excise tax and were more likely to maintain or even slightly increase repurchases after its implementation. When the post-tax period is disaggregated by year, the interaction terms $TECH*YR2023$ and $TECH*YR2024$ are both positive and statistically significant ($TECH*YR2023$, 0.001, $t = 2.96$; $TECH*YR2024$, 0.002, $t = 4.54$), suggesting that technology firms consistently sustained higher levels of repurchase activity throughout 2023 and 2024 relative to other firms. These findings highlight the heterogeneity in firms' behavioral responses to the excise tax across industries and underscore that the policy's effectiveness may vary depending on sectoral characteristics.

[Insert Table 7 Here]

5.2. Institutional Ownership Rate

We further examine whether institutional investor ownership structure moderates firms' responses to the IRA excise tax on stock repurchases. Institutional investors differ substantially in their investment horizons, monitoring intensity, and sensitivity to short-term performance.

Following Bushee (1998, 2001), we classify institutional investors into three types based on their portfolio turnover and diversification characteristics: transient, quasi-indexer, and dedicated investors.

Dedicated institutions exhibit low turnover and low diversification, consistent with a long-term strategy of holding large stakes in a small number of firms. Transient institutions have high turnover and high diversification, consistent with short trading horizons and fragmented holdings in many firms. Quasi-indexing institutions fall somewhere in between and display low turnover and high diversification, consistent with a passive long-term buy-and-hold strategy across a broad set of firms (Bushee, 2001; Ramalingegowda and Yu, 2012). Bushee (2001) shows that transient institutions tend to overweight the near-term earnings component of firm value and underweight long-term earnings because their information gathering is attuned to short-term news. These investors are most likely to pay close attention to corporate repurchase announcements and respond to them by frequently adjusting their holdings and positions (Nguyen, Mishra, and Jain, 2022). According to Bushee (2001) and Puckett and Yan (2011), this trading strategy generates significant abnormal returns. In contrast, dedicated and quasi-indexer investors have longer investment horizons and are more likely to engage in fundamental analysis and closely monitor the firms in which they invest.

Because the IRA excise tax increases the cost of repurchases, firms with different ownership clientele may react differently. Firms with a high level of transient institutional ownership are more likely to sustain or even increase repurchases after the tax to meet short-term investor expectations and maintain payout stability. Firms with higher dedicated or quasi-indexer ownership are expected to reduce repurchases because these investors focus on long-term value creation and are less concerned about short-term distribution policies.

We estimate the following Model (7) using a firm-quarter panel from 2022Q1 to 2024Q4:

$$\begin{aligned} \text{REPURCHASE}_{i,q} = & \beta_0 + \beta_1 \text{IOR_HIGH}_{i,q} + \beta_2 \text{POST_TAX}_{i,q} + \beta_3 \text{IOR_HIGH}_{i,q} * \\ & \text{POST_TAX}_{i,q} + \text{CCONTROL} + \text{FIRM FE} + \varepsilon_{i,t} \end{aligned} \quad (7)$$

where *IOR_HIGH* is an indicator variable equal to one if the firm *i*'s ownership by a given institutional investor type (transient, quasi-indexer, or dedicated) is above the sample mean in the quarter *q*, and zero otherwise. The coefficient on the interaction term *IOR_HIGH * POST_TAX* captures whether firms with high ownership by a given investor type exhibited stronger changes in repurchase behavior following the tax.

Table 1 presents the descriptive statistics for the key institutional ownership variables. On average, transient institutions hold 8.8 percent of shares outstanding (*IOR_TRANSIENT*), quasi-indexers hold 36.4 percent (*IOR_QUASI*), and dedicated investors hold 14.5 percent (*IOR_DEDICATED*). Based on these levels, 40.5 percent of firm-quarters are classified as high transient ownership (*IOR_HIGH* for *TRANSIENT*), 56.6 percent as high quasi-indexer ownership (*IOR_HIGH* for *QUASI-INDEX*), and 54.0 percent as high dedicated ownership (*IOR_HIGH* for *DEDICATED*).

Table 8 reports the regression results. For firms with higher transient institutional ownership, the interaction term *IOR_HIGH * POST_TAX* is positive and statistically significant (0.001, *t* = 1.82), suggesting that these firms were more likely to sustain or slightly increase repurchases following the introduction of the excise tax. This finding is consistent with the view that transient investors emphasize short-term performance and payout stability. However, the results also reveal that the positive effect of transient ownership is concentrated in 2023 and does not persist into 2024, indicating a temporary adjustment by management.

In contrast, firms with higher quasi-indexer and dedicated ownership show negative and statistically significant coefficients on the interaction term. Specifically, the coefficient for quasi-indexer ownership is -0.001 ($t = -4.34$), and for dedicated ownership it is -0.001 ($t = -3.35$). These results indicate that firms with longer-term oriented institutional investors reduced repurchases in response to the excise tax and that this reduction is persistent through both 2023 and 2024. The pattern suggests that quasi-indexer and dedicated investors are more likely to support adjustments in payout policy that reflect the long-term cost implications of the tax.

Overall, the results indicate that institutional investor heterogeneity plays an important role in shaping firms' responses to the IRA excise tax. Firms dominated by transient investors tend to maintain repurchases to satisfy short-term payout preferences, while firms held by quasi-indexer and dedicated investors are more willing to reduce repurchases and adjust their payout policies. These findings underscore the importance of investor composition in influencing corporate responses to tax policy and add to the literature on how institutional ownership shapes firm behavior.

[Insert Table 8 Here]

5.3. Shifts in Compensation Expenses

To further examine whether firms adjusted compensation expenses following the introduction of the IRA excise tax, we analyze changes in the composition of employee and executive compensation. If firms sought to offset the reduced flexibility in repurchases and payouts, they may have shifted toward stock pay to maintain employee incentives and shareholder alignment while minimizing tax costs.

We construct a firm-year panel from 2022 to 2024, consistent with the previous tests. Employee compensation data is obtained from Compustat, while executive compensation data is

drawn from ExecuComp. Employee compensation includes two measures: (1) employee equity compensation (*EMP_EQUITY*), measured as stock-based compensation expense (*STKCO*) scaled by market capitalization and multiplied by 100, and (2) employee total compensation (*EMP_TOTAL*), measured as total staff expense (*XLR*) scaled by market capitalization and multiplied by 100.¹⁴ The *XLR* variable in Compustat has substantial missing values across firms and years, so the effective sample size for total compensation is much smaller than for equity compensation. Executive compensation data from ExecuComp include three measures: (1) executive equity compensation (*EXE_EQUITY*), which represents total compensation excluding salary and bonus; (2) executive cash compensation (*EXE_CASH*), which includes salary and bonus; and (3) executive total compensation (*EXE_TOTAL*). Each measure is scaled by market capitalization and multiplied by 100, representing the percentage of compensation relative to the market value of firm equity.

We estimate the following model to test whether compensation structures changed after the implementation of the IRA excise tax:

$$\begin{aligned}
 COMP_{i,t} = & \beta_0 + \beta_1 REP_FIRM_{i,t} + \beta_2 POST_TAX_{i,t} + \beta_3 REP_FIRM_{i,t} * POST_TAX_{i,t} + \\
 & CONTROL + FIRM FE + \varepsilon_{i,t}
 \end{aligned} \tag{8}$$

where *COMP* denotes one of the compensation dependent variables described above. *REP_FIRM* equals one for firm-years whose annual repurchases exceed one million dollars and zero otherwise. *POST_TAX* equals one for years 2023–2024 (the post-policy period) and zero for 2022. The interaction term *REP_FIRM*POST_TAX* captures whether repurchasing firms adjusted their compensation mix following the implementation of the excise tax.

¹⁴ Due to data availability, we only examine equity compensation and total compensation for employees.

Table 1 reports descriptive statistics for the compensation variables. On average, employee equity compensation (*EMP_EQUITY*) accounts for 2.642 percent of firm market capitalization, while total employee compensation (*EMP_TOTAL*) averages 1.619 percent. Among executives, mean equity compensation (*EXE_EQUITY*) is 0.538 percent, cash compensation (*EXE_CASH*) is 0.227 percent, and total compensation (*EXE_TOTAL*) averages 0.784 percent of market capitalization. These statistics suggest that executive pay is heavily weighted toward equity-based components, consistent with prior literature on incentive alignment.

Table 9, Panel A, presents the results for employee compensation. The coefficients on the interaction term *REP_FIRM*POST_TAX* are statistically insignificant for both employee equity compensation (-0.034 , $t = -0.25$) and total compensation (-1.143 , $t = -0.67$). These results indicate that employee pay levels do not materially change following the introduction of the excise tax.

Table 9, Panel B, reports results for executive compensation. The coefficients on *REP_FIRM*POST_TAX* are positive across all specifications but not statistically significant, with 0.043 ($t = 0.90$) for equity pay (*EXE_EQUITY*), 0.024 ($t = 0.81$) for cash pay (*EXE_CASH*), and 0.047 ($t = 0.67$) for total compensation (*EXE_TOTAL*). These findings suggest that the excise tax did not lead to meaningful changes in executive pay levels among affected firms.

Overall, the results show no evidence of a systematic shift in compensation for either employees or executives after the introduction of the IRA excise tax. Combined with the findings in H3, these results imply that firms primarily relied on increasing equity issuance, rather than altering compensation, to mitigate the tax burden associated with repurchases.

[Insert Table 9 Here]

5.4. Canadian Firms as a Placebo Comparison

Because the excise tax introduced under the Inflation Reduction Act of 2022 applies uniformly to U.S. firms, constructing an internal control group unaffected by the policy is challenging. As a result, evidence based solely on U.S. firms may reflect broader macroeconomic conditions, time-series variation in repurchase activity, or contemporaneous changes in standard repurchase determinants.

To address this concern, we conduct a placebo analysis using Canadian firms, which are not subject to the excise tax in the United States but face similar macroeconomic conditions and comparable disclosure requirements for share repurchases. We construct a sample of Canadian firm-quarters using the same selection criteria as for the U.S. sample and estimate our baseline specification on the Canadian sample. Table 10 reports the results of this placebo analysis. We find that the interaction term ($REP_FIRM \times POST_TAX$) is insignificant across all columns. This absence of a post-tax change among Canadian firms indicates that the observed reduction in repurchases and increase in employee stock issuances among U.S. firms are unlikely to be driven by macroeconomic forces alone, supporting a causal interpretation of the excise tax effect.

[Insert Table 10 Here]

5.4. Reverse Causality

A potential concern with our baseline design is reverse causality. Specifically, while our main analysis examines whether repurchasing firms increase employee equity issuance following the excise tax, it is also possible that firms with higher equity issuance are inherently more likely to engage in repurchases. If so, our results could reflect underlying compensation policies rather than tax-driven responses.

To address this concern, we conduct a reverse specification in which repurchase activity is treated as the dependent variable and employee equity issuance serves as the key independent variable in Module (5). In particular, we regress firm-level repurchase indicators on the interaction between employee equity issuance and the post-tax indicator. The employee equity issuance include total stock compensation plans as well as stock options, restricted stock units (RSU), employee benefit plans (EBP), and employee stock purchase plans (ESPP).

Across these specifications, We find no statistically significant association between repurchase activity and total employee equity, RSUs, EBPs, or ESPPs after the excise tax. The only exception is a marginally positive relation for stock option issuance. However, this isolated result is economically small and does not extend to other forms of employee equity compensation. In contrast, our main results show that repurchasing firms exhibit significant post-tax increases in total employee equity issuance, stock option grants, and RSUs. This asymmetry in findings supports our identification strategy and suggests that the observed increases in employee equity issuance are more consistent with firms' responses to the excise tax, rather than equity issuance mechanically driving repurchase activity.

Taken together, these findings mitigate concerns that equity issuance systematically drives repurchase decisions. Instead, the absence of a strong reverse relationship supports our main interpretation that increases in employee equity issuance primarily reflect firms' responses to the excise tax, consistent with the use of the netting rule to offset taxable repurchases.

6. CONCLUSION

This study provides early evidence on how U.S. corporations responded to the one percent excise tax on stock repurchases introduced on 2023. Using an extended sample through 2025, we confirm prior findings that repurchases initially declined following the implementation of the tax

(Autore et al., 2025; Barger et al., 2025); however, this effect proved to be temporary. Repurchase activity began to rebound by the fourth quarter of 2023 and continued to rise thereafter, indicating that firms do not permanently reduce buybacks as intended by the policy. Dividend distributions remained largely stable, and total payout levels recovered alongside the resurgence in buybacks, indicating that firms quickly adapted to the new tax regime without permanently altering their capital distribution structure.

Consistent with short-run adjustment along statutory margins, we find that firms became more likely to conduct small repurchases that fall below the \$1 million *de minimis* threshold per tax year immediately after the tax took effect, although this behavior attenuated over time. Beyond payout adjustments, we provide the first empirical evidence on firms' use of the *netting rule*. Repurchasing firms increased employee equity issuance following the excise tax, primarily through stock options and restricted stock units. At the grant stage, the increase is driven mainly by stock options, indicating that firms appear to favor options as a cost-effective way to create offsetting shares. We also find evidence of accelerated share delivery, reflected in shorter remaining vesting periods for non-option equity awards, which directly issue shares upon vesting. Together, these patterns suggest that firms manage both the amount and the timing of employee equity awards to reduce excise-tax exposure. In contrast, we find no systematic changes in executive equity issuance or grants, suggesting that firms rely primarily on broad employee equity compensation rather than executive pay as a tax-planning instrument.

Additional analyses reveal heterogeneity in the corporate response to the excise tax. Technology firms also maintained elevated repurchase activity throughout 2023 and 2024, suggesting that sectoral characteristics materially influence firms' ability and willingness to absorb the tax cost. Moreover, firms with higher transient institutional ownership were more likely to

sustain or slightly increase repurchases following the tax's introduction, consistent with investor preferences for short-term payout stability. Conversely, firms with greater quasi-indexer and dedicated ownership reduced repurchases more persistently, reflecting a longer-term adjustment to the cost implications of the tax.

To strengthen identification, we conduct a placebo analysis using Canadian firms, which face similar macroeconomic conditions but are not subject to the U.S. excise tax. We find no comparable post-period changes among Canadian firms, supporting a causal interpretation of the excise tax effect and mitigating concerns that our results are driven by macroeconomic forces or general time trends.

Taken together, our findings indicate that the excise tax has not achieved its intended goal of curbing stock repurchases. Instead, firms preserve buyback activity through tax-planning channels, including temporary scaling of repurchases, increased reliance on employee stock issuance, and accelerated vesting of certain equity awards. We provide timely evidence and political implications suggesting that a modest transaction-level tax is insufficient to alter long-standing payout incentives in the U.S. capital market. Our study contributes to the literature on payout policy and corporate taxation by showing how non-income taxes create new incentives for corporate tax planning and by illustrating the challenges policymakers face in designing interventions that materially reshape corporate financial behavior.

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Figure 1. Trend of Firm Quarterly Stock Repurchases from 2019 Q1 to 2025 Q2

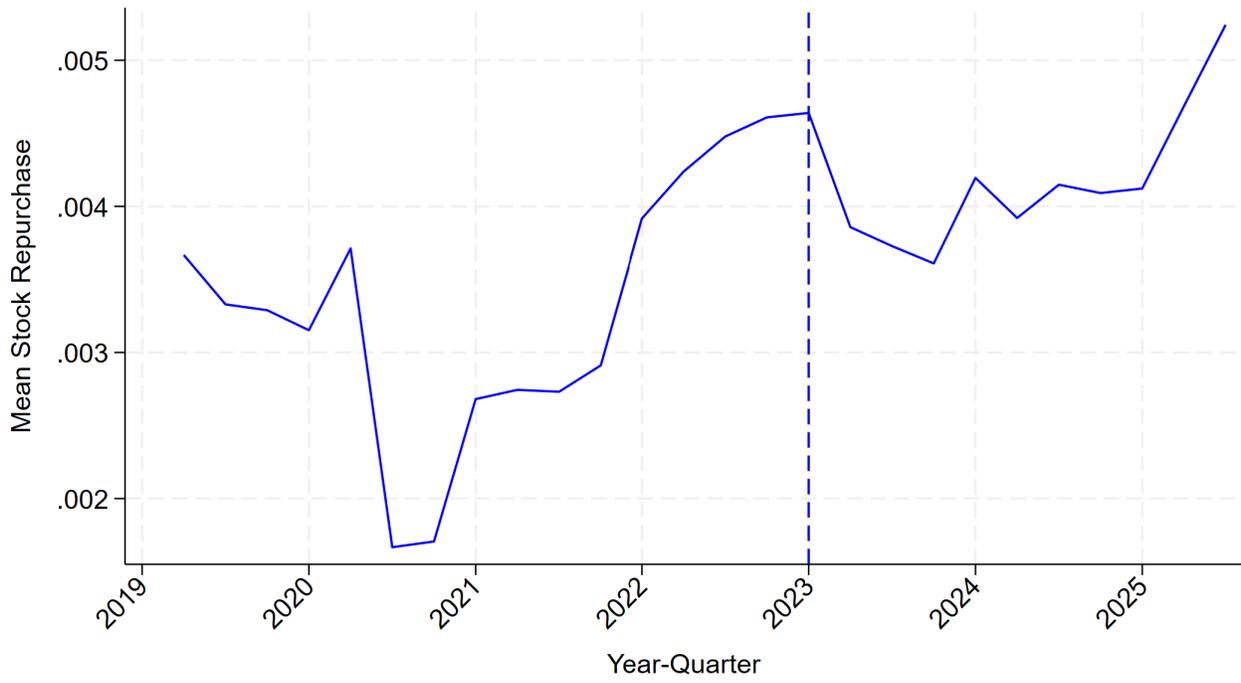


Figure 2. Trend of Firm Quarterly Dividend Yield from 2019 Q1 to 2025 Q2

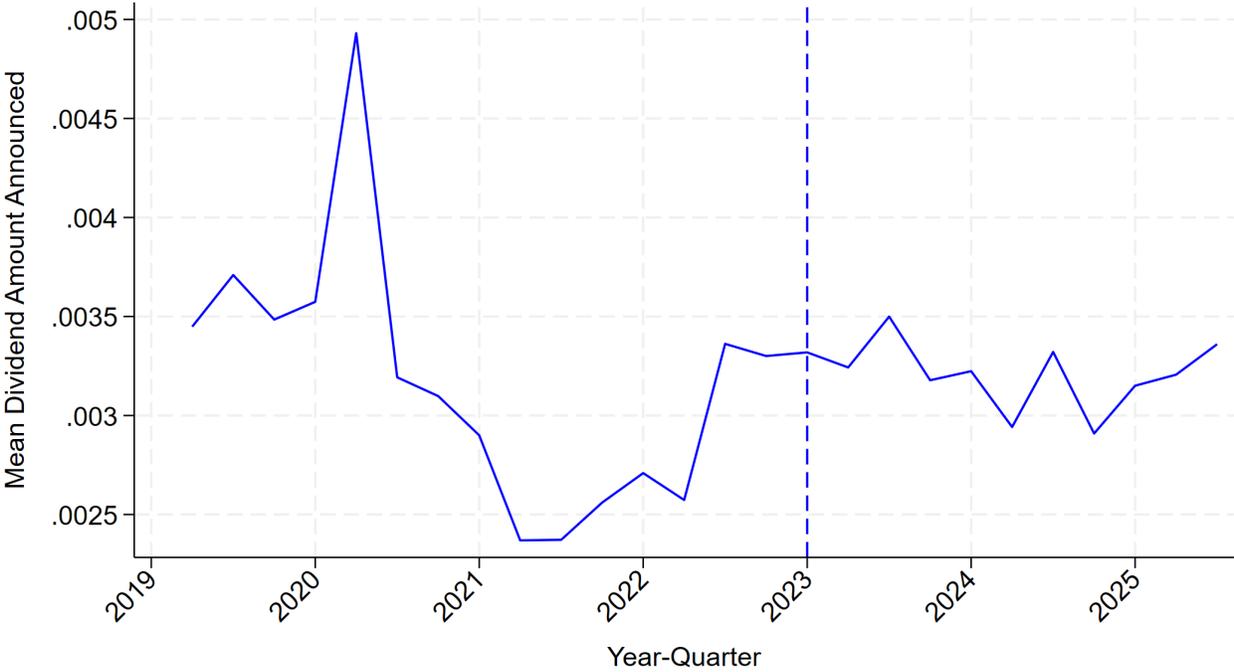


Figure 3. Frequency of Stock Repurchases Smaller than \$1 Million from 2019 to 2024

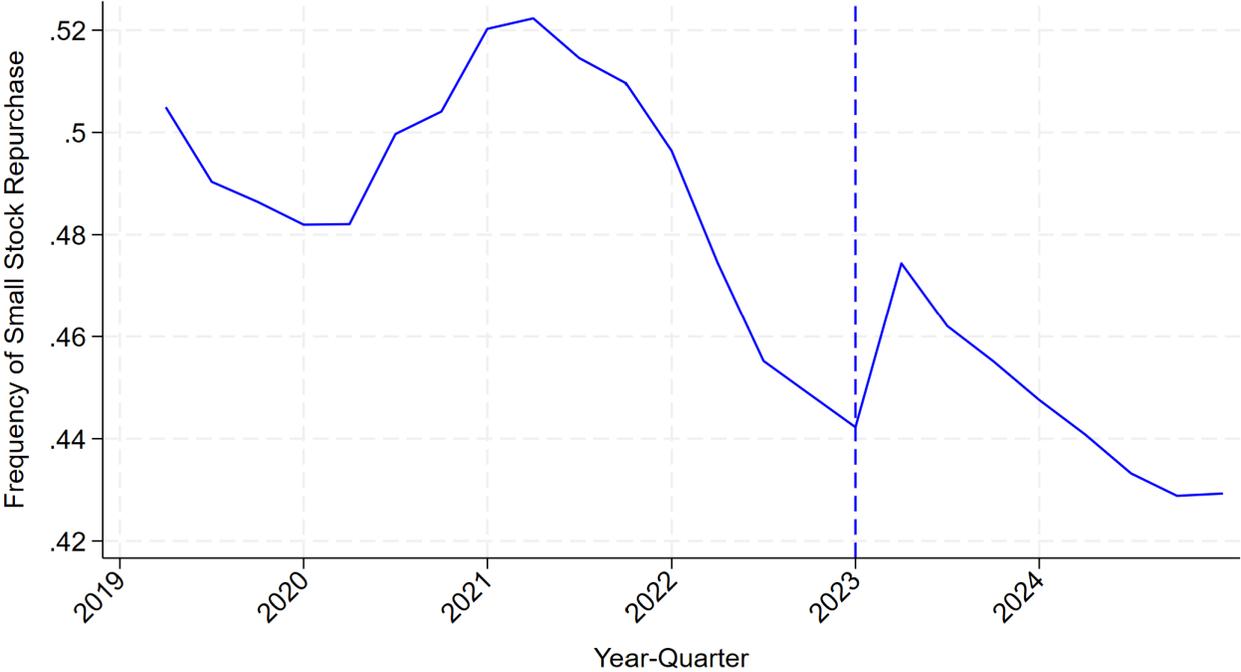


Table 1. Summary Statistics

	N	Mean	Std. Dev.	P25	Median	P75
H1: Stock Repurchase and Dividend Payout (2022 Q1 – 2025 Q2)						
<i>REPURCHASE</i>	47,924	0.004	0.009	0.000	0.000	0.004
<i>DIVIDENDS</i>	47,924	0.003	0.007	0.000	0.000	0.004
<i>PAYOUT</i>	47,924	0.008	0.013	0.000	0.002	0.011
<i>POST_TAX</i>	47,924	0.699	0.458	0.000	1.000	1.000
<i>YR2023</i>	47,924	0.281	0.450	0.000	0.000	1.000
<i>YR2024</i>	47,924	0.283	0.450	0.000	0.000	1.000
<i>YR2025</i>	47,924	0.135	0.342	0.000	0.000	0.000
<i>SIZE</i>	47,924	7.070	2.263	5.653	7.133	8.614
<i>QUICK</i>	47,924	2.257	3.758	0.690	1.152	2.181
<i>LEVERAGE</i>	47,924	0.317	0.337	0.107	0.275	0.435
<i>SALE_GROW</i>	47,924	0.067	0.496	-0.066	0.015	0.099
<i>ROA</i>	47,924	-0.022	0.143	-0.020	0.005	0.018
<i>MTB</i>	47,924	3.100	9.923	0.954	1.876	3.831
<i>STD_CFO</i>	47,924	0.064	0.116	0.024	0.039	0.065
<i>STD_SALES</i>	47,924	0.028	0.037	0.008	0.016	0.032
<i>GDP_GROWTH</i>	47,924	2.197	1.531	1.600	2.700	3.200
<i>S&P500_RETURN</i>	47,924	4.808	0.827	4.102	4.540	5.598
H2: Frequency of Stock Repurchase Smaller than \$1 Million (2022 Q1 – 2024 Q4)						
<i>REP_SMALL</i>	41,435	0.449	0.497	0.000	0.000	1.000
H3: Employee and Executive Equity Awards Exercised (2022 – 2024)						
<i>REP_FIRM</i>	11,440	0.533	0.499	0.000	1.000	1.000
<i>EQ_AWARD</i>	11,440	1.353	2.947	0.000	0.479	1.483
<i>OPTIONS</i>	11,440	0.304	0.770	0.000	0.000	0.225
<i>RSU</i>	11,440	0.753	1.450	0.000	0.151	0.901
<i>EBP</i>	11,440	0.004	0.034	0.000	0.000	0.000
<i>ESPP</i>	11,440	0.058	0.178	0.000	0.000	0.000
<i>EQ_GRANT</i>	11,440	2.411	5.474	0.000	0.733	2.660
<i>OPT_GRANT</i>	11,440	0.682	1.965	0.000	0.000	0.241
<i>RSU_GRANT</i>	11,440	1.435	2.869	0.000	0.375	1.613
<i>OPT_VEST</i>	9,862	1.551	1.428	0.000	1.600	2.300
<i>OTHER_VEST</i>	9,862	1.553	1.948	0.000	0.545	2.700
<i>OPTION_EXE</i>	4,088	0.068	0.173	0.000	0.000	0.041
<i>OPTION_CEO</i>	4,088	0.034	0.107	0.000	0.000	0.000
<i>OPTION_CFO</i>	4,088	0.006	0.024	0.000	0.000	0.000
<i>OPTION_EXE_GRANT</i>	4,088	0.072	0.200	0.000	0.000	0.042
<i>OPTION_CEO_GRANT</i>	4,088	0.032	0.094	0.000	0.000	0.011
<i>OPTION_CFO_GRANT</i>	4,088	0.009	0.028	0.000	0.000	0.004
H4: Employee and Executive Compensation (2022 – 2024)						
<i>EMP_EQUITY</i>	10,673	2.642	5.512	0.371	0.958	2.551
<i>EMP_TOTAL</i>	2,270	1.619	3.667	0.207	0.577	1.454
<i>EXE_EQUITY</i>	4,102	0.538	0.715	0.111	0.276	0.649
<i>EXE_CASH</i>	4,102	0.227	0.507	0.023	0.069	0.190
<i>EXE_TOTAL</i>	4,102	0.784	1.186	0.154	0.373	0.889

Cross-Sectional Analysis: Institutional Ownership and Technology Firms (2022 – 2024)						
<i>IOR_HIGH (TRANSIENT)</i>	25,955	0.405	0.491	0.000	0.000	1.000
<i>IOR_HIGH (QUASI-INDEX)</i>	25,955	0.566	0.496	0.000	1.000	1.000
<i>IOR_HIGH (DEDICATED)</i>	25,955	0.540	0.498	0.000	1.000	1.000
<i>IOR_TRANSIENT</i>	25,955	0.088	0.072	0.036	0.069	0.121
<i>IOR_QUASI</i>	25,955	0.364	0.219	0.160	0.395	0.553
<i>IOR_DEDICATED</i>	25,955	0.145	0.089	0.063	0.152	0.209
<i>TECH</i>	36,535	0.299	0.458	0.000	0.000	1.000

This table presents the summary statistics for variables used in the analysis. Continuous variables are winsorized at the top and bottom 1% to mitigate the influence of outliers. All variable definitions are provided in Appendix A.

Table 2. Stock Repurchase and Dividend Yield

	Stock Repurchase (<i>REPURCHASE</i>)		Dividend Yield (<i>DIVIDENDS</i>)		Total Payout (<i>TOTAL PAYOUT</i>)	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>POST_TAX</i>	-0.007*** (-5.74)		-0.000 (-0.80)		-0.009*** (-5.90)	
<i>YR2023</i>		-0.001** (-2.21)		0.001*** (3.73)		-0.001 (-1.16)
<i>YR2024</i>		-0.001** (-2.43)		-0.000 (-1.29)		-0.002** (-2.35)
<i>YR2025</i>		-0.000 (-0.56)		-0.000 (-1.02)		-0.000 (-0.48)
<i>SIZE</i>	-0.001** (-2.47)	-0.001** (-2.47)	0.000 (0.78)	0.000 (0.78)	-0.001* (-1.73)	-0.001* (-1.73)
<i>QUICK</i>	-0.000 (-0.11)	-0.000 (-0.11)	-0.000** (-2.04)	-0.000** (-2.04)	-0.000 (-1.33)	-0.000 (-1.33)
<i>LEVERAGE</i>	-0.000 (-0.85)	-0.000 (-0.85)	-0.000 (-0.34)	-0.000 (-0.34)	-0.001 (-1.01)	-0.001 (-1.01)
<i>SALE_GROWTH</i>	-0.000 (-1.55)	-0.000 (-1.55)	-0.000** (-2.14)	-0.000** (-2.14)	-0.000 (-1.55)	-0.000 (-1.55)
<i>ROA</i>	0.002*** (5.71)	0.002*** (5.71)	0.000 (0.31)	0.000 (0.31)	0.003*** (3.39)	0.003*** (3.39)
<i>MTB</i>	-0.000 (-0.50)	-0.000 (-0.50)	-0.000 (-1.54)	-0.000 (-1.54)	-0.000 (-0.65)	-0.000 (-0.65)
<i>STD_CFO</i>	0.002*** (3.55)	0.002*** (3.55)	0.000 (0.21)	0.000 (0.21)	0.002** (2.26)	0.002** (2.26)
<i>STD_SALES</i>	-0.000 (-0.12)	-0.000 (-0.12)	-0.001 (-0.63)	-0.001 (-0.63)	-0.001 (-0.22)	-0.001 (-0.22)
<i>GDP_GROWTH</i>	-0.001** (-5.52)	0.000 (0.72)	-0.000 (-1.49)	-0.000** (-2.24)	-0.001*** (-5.65)	0.000 (0.85)
<i>S&P500_RETURN</i>	0.007*** (5.82)	0.001 (0.77)	0.001* (1.70)	0.001** (2.51)	0.010*** (6.14)	0.001 (0.93)
<i>INTERCEPT</i>	-0.025*** (-4.17)	0.007** (1.99)	-0.003 (-0.89)	-0.002 (-1.16)	-0.034*** (-4.37)	0.009* (1.86)

Firm Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year-Quarter Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	47,924	47,924	47,924	47,924	47,924	47,924
Adjusted R-Squared	0.004	0.004	0.003	0.003	0.003	0.003

This table presents regression results examining changes in stock repurchases (*REPURCHASE*), dividend yields (*DIVIDENDS*), and total payouts (*PAYOUT*) after the introduction of the IRA excise tax from 2022 Q1 through 2025 Q2. Columns (1), (3), and (5) report results using a single post-tax indicator (*POST_TAX*), while Columns (2), (4), and (6) present year-by-year results (*YR2023*, *YR2024*, and *YR2025*). All columns control for firm and year-quarter fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 3. Tax Planning: Small Repurchase (< 1 Million)

	Small Repurchase (<i>REP_SMALL</i>)	
	(1)	(2)
<i>POST_TAX</i>	0.018^{***} (2.68)	
<i>YR2023</i>		0.014^{**} (2.23)
<i>YR2024</i>		-0.002 (-0.31)
<i>SIZE</i>	-0.068 ^{***} (-4.63)	-0.068 ^{***} (-4.62)
<i>QUICK</i>	-0.001 (-0.63)	-0.001 (-0.65)
<i>LEVERAGE</i>	0.096 ^{***} (3.61)	0.096 ^{***} (3.62)
<i>SALE_GROWTH</i>	0.006 ^{***} (2.84)	0.005 ^{***} (2.71)
<i>ROA</i>	0.002 (0.13)	0.003 (0.16)
<i>MTB</i>	-0.000 ^{**} (-2.04)	-0.000 ^{**} (-2.06)
<i>STD_CFO</i>	-0.083 (-1.51)	-0.081 (-1.48)
<i>STD_SALES</i>	0.173 (1.63)	0.171 (1.61)
<i>GDP_GROWTH</i>	-0.001 (-1.49)	-0.000 (-0.38)
<i>S&P500_RETURN</i>	-0.014 ^{***} (-3.24)	-0.003 (-1.39)
<i>INTERCEPT</i>	0.954 ^{***} (8.98)	0.910 ^{***} (8.64)
Firm Fixed Effect	Yes	Yes
Observations	41,435	41,435
Adjusted R-Squared	0.769	0.769

This table examines the impact of the IRA excise tax provisions on the likelihood of small repurchases (*REP_SMALL*) using a firm-quarter panel from 2022 Q1 through 2024 Q4. Column (1) reports results using a single post-tax indicator (*POST_TAX*), while Column (2) presents year-by-year results (*YR2023* and *YR2024*). All regressions include firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 4. Tax Planning: Shares Issued under Stock Compensation Plans to Employees

Panel A: Shares Issued to Employees under Stock Compensation Plans					
	(1) Total Stock Compensation Plans (<i>EQ_AWARD</i>)	(2) Stock Option (<i>OPTIONS</i>)	(3) Restricted Stock Unit (<i>RSU</i>)	(4) Employee Benefit Plan (<i>EBP</i>)	(5) Employee Stock Purchase Plan (<i>ESPP</i>)
<i>REP_FIRM</i>	0.015 (0.16)	-0.002 (-0.08)	0.036 (0.77)	-0.001 (-1.13)	0.006 (1.55)
<i>POST_TAX</i>	-0.178** (-1.98)	0.010 (0.39)	-0.227*** (-5.46)	-0.001 (-0.98)	0.007 (1.51)
<i>REP_FIRM * POST_TAX</i>	0.204** (2.43)	0.062** (2.58)	0.108*** (2.97)	0.001 (1.55)	-0.006* (-1.78)
<i>SIZE</i>	-0.308* (-1.75)	0.060 (1.03)	-0.123 (-1.62)	-0.001 (-0.44)	-0.015* (-1.75)
<i>QUICK</i>	-0.003 (-0.16)	0.008 (1.41)	-0.009 (-1.19)	-0.000 (-0.94)	0.001 (1.16)
<i>LEVERAGE</i>	0.180 (0.59)	-0.170* (-1.86)	0.439*** (2.66)	-0.007* (-1.84)	0.019 (1.35)
<i>SALE_GROWTH</i>	0.023 (0.48)	0.015 (1.13)	-0.024 (-1.18)	-0.000* (-1.82)	-0.001 (-0.53)
<i>ROA</i>	0.304 (1.45)	0.007 (0.13)	0.118 (1.36)	-0.001 (-0.60)	0.002 (0.22)
<i>MTB</i>	-0.004 (-0.81)	0.001 (1.18)	-0.001 (-0.29)	0.000 (0.28)	-0.000 (-1.01)
<i>STD_CFO</i>	-0.550 (-1.22)	-0.207 (-1.23)	-0.046 (-0.23)	-0.006 (-1.38)	0.000 (0.02)
<i>STD_SALES</i>	0.424 (0.63)	-0.058 (-0.35)	0.139 (0.78)	0.000 (0.07)	-0.012 (-1.13)
<i>GDP_GROWTH</i>	0.487*** (3.19)	-0.170*** (-4.00)	0.629*** (9.03)	-0.000 (-0.29)	0.023*** (3.18)
<i>S&P500_RETURN</i>	0.086** (2.24)	-0.009 (-0.86)	0.106*** (6.23)	-0.000 (-0.38)	-0.004** (-2.13)
<i>INTERCEPT</i>	1.784	0.418	-0.639	0.017	0.108*

	(1.40)	(0.98)	(-1.15)	(1.01)	(1.78)
Firm Fixed Effect	Yes	Yes	Yes	Yes	Yes
Observations	11,440	11,440	11,440	11,440	11,440
Adjusted R-Squared	0.008	0.009	0.037	0.003	0.004

Panel B: Shares Granted to Employees under Stock Compensation Plans

	(1) Total Stock Compensation Plans Granted (<i>EQ_GRANT</i>)	(2) Stock Option (<i>OPT_GRANT</i>)	(3) Restricted Stock Unit (<i>RSU_GRANT</i>)
<i>REP_FIRM</i>	-0.132 (-0.70)	-0.184*** (-2.79)	-0.036 (-0.39)
<i>POST_TAX</i>	0.185 (1.08)	0.038 (0.66)	0.055 (0.67)
<i>REP_FIRM * POST_TAX</i>	0.038 (0.24)	0.138** (2.49)	-0.097 (-1.27)
<i>SIZE</i>	-0.110 (-0.26)	-0.070 (-0.41)	-0.037 (-0.20)
<i>QUICK</i>	0.013 (0.38)	0.004 (0.26)	0.026 (1.52)
<i>LEVERAGE</i>	1.445** (2.30)	0.407 (1.52)	0.612* (1.81)
<i>SALE_GROWTH</i>	0.062 (0.60)	0.037 (0.81)	0.055 (1.24)
<i>ROA</i>	-0.081 (-0.17)	-0.193 (-1.24)	-0.240 (-1.09)
<i>MTB</i>	-0.003 (-0.44)	-0.001 (-0.30)	-0.003 (-1.15)
<i>STD_CFO</i>	-0.663 (-0.46)	-1.413*** (-2.81)	0.202 (0.32)
<i>STD_SALES</i>	1.078 (1.50)	0.388 (1.13)	0.347 (1.04)

<i>GDP_GROWTH</i>	0.038 (0.14)	-0.003 (-0.04)	0.126 (0.95)
<i>S&P500_RETURN</i>	-0.099 (-1.35)	-0.126*** (-4.83)	0.053 (1.38)
<i>INTERCEPT</i>	2.919 (0.94)	1.729 (1.45)	0.776 (0.59)
Firm Fixed Effect	Yes	Yes	Yes
Observations	11,440	11,440	11,440
Adjusted R-Squared	0.002	0.012	0.005

This table examines whether firms increased stock compensation to employees following the implementation of the IRA excise tax, using a firm-year panel from 2022 to 2024. Panel A presents results for shares issued to employees through equity awards. Column (1) reports results for the total number of shares exercised through stock options, restricted stock units (RSUs), employee benefit plans (EBPs), and employee stock purchase plans (ESPPs), while Columns (2)-(5) report results for these four components separately. Panel B presents results for shares granted through employee stock options and RSUs, as well as the average remaining vesting period, which captures whether stock compensation is accelerated post-IRA. Column (1) reports results for the total number of shares granted through stock options and RSUs, while Columns (2) and (3) present results for stock options and RSUs separately. Columns (4) and (5) report results for the average remaining vesting period, with Column (4) focusing on stock options and Column (5) focusing on other stock compensation. All columns control for firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 5. Tax Planning: Shares Issued under Stock Compensation Plans to Executives

Panel A: Shares Issued to Executives under Stock Options			
	(1)	(2)	(3)
	Stock Options Exercised by All Executives (<i>OPTION_EXE</i>)	Stock Options Exercised by CEO (<i>OPTION_CEO</i>)	Stock Options Exercised by CFO (<i>OPTION_CFO</i>)
<i>REP_FIRM</i>	0.012	0.014	0.002
	(0.82)	(1.37)	(0.98)
<i>POST_TAX</i>	0.006	0.002	0.001
	(0.41)	(0.20)	(0.74)
<i>REP_FIRM * POST_TAX</i>	0.006	0.002	0.002
	(0.42)	(0.16)	(1.61)
<i>SIZE</i>	0.028	0.024*	0.001
	(0.96)	(1.81)	(0.49)
<i>QUICK</i>	-0.006	-0.003	-0.000
	(-0.84)	(-0.71)	(-0.36)
<i>LEVERAGE</i>	-0.009	0.053*	-0.008
	(-0.16)	(1.66)	(-1.12)
<i>SALE_GROWTH</i>	0.031*	0.007	0.001
	(1.79)	(0.59)	(0.32)
<i>ROA</i>	0.121**	0.086**	0.008
	(2.31)	(2.34)	(1.09)
<i>MTB</i>	-0.000	-0.000	0.000
	(-0.59)	(-0.67)	(0.38)
<i>STD_CFO</i>	0.066	0.111	-0.014
	(0.34)	(0.87)	(-0.40)
<i>STD_SALES</i>	-0.033	-0.038	-0.008
	(-0.51)	(-0.83)	(-0.94)
<i>GDP_GROWTH</i>	-0.025	-0.015	-0.003
	(-1.29)	(-1.17)	(-0.98)
<i>S&P500_RETURN</i>	0.002	0.001	-0.001
	(0.35)	(0.25)	(-1.59)
<i>INTERCEPT</i>	-0.120	-0.164	0.009

	(-0.50)	(-1.43)	(0.38)
Firm Fixed Effect	Yes	Yes	Yes
Observations	4,088	4,088	4,088
Adjusted R-Squared	0.009	0.007	0.005

Panel B: Shares Granted to Executives through Stock Options

	(1) Stock Options Granted to All Executives (<i>OPTION_EXE_GRANT</i>)	(2) Stock Options Granted to CEO (<i>OPTION_CEO_GRANT</i>)	(3) Stock Options Granted to CFO (<i>OPTION_CFO_GRANT</i>)
<i>REP_FIRM</i>	-0.013 (-0.65)	-0.003 (-0.33)	-0.002 (-0.72)
<i>POST_TAX</i>	-0.011 (-0.66)	0.002 (0.26)	-0.002 (-0.71)
<i>REP_FIRM * POST_TAX</i>	0.007 (0.41)	-0.003 (-0.43)	0.001 (0.54)
<i>SIZE</i>	0.007 (0.21)	0.010 (0.76)	0.000 (0.09)
<i>QUICK</i>	-0.006 (-0.86)	-0.003 (-1.17)	-0.001 (-0.57)
<i>LEVERAGE</i>	0.078 (0.72)	0.018 (0.37)	0.016 (1.17)
<i>SALE_GROWTH</i>	-0.018 (-0.75)	-0.003 (-0.29)	-0.001 (-0.37)
<i>ROA</i>	-0.140 (-1.58)	-0.056 (-1.32)	-0.013 (-1.25)
<i>MTB</i>	-0.000 (-0.32)	-0.000 (-0.54)	-0.000 (-0.45)
<i>STD_CFO</i>	0.670** (2.08)	0.338** (2.21)	0.070* (1.67)
<i>STD_SALES</i>	-0.173* (-1.90)	-0.086* (-1.91)	-0.019 (-1.49)

<i>GDP_GROWTH</i>	-0.025 (-1.40)	-0.012 (-1.33)	0.001 (0.31)
<i>S&P500_RETURN</i>	-0.002 (-0.51)	-0.002 (-0.96)	-0.001 (-1.42)
<i>INTERCEPT</i>	0.095 (0.33)	-0.004 (-0.03)	0.006 (0.13)
Firm Fixed Effect	Yes	Yes	Yes
Observations	4,088	4,088	4,088
Adjusted R-Squared	0.018	0.014	0.012

This table examines whether firms increased equity issuance to executives following the implementation of the IRA excise tax, using a firm-year panel from 2022 to 2024. Panel A presents results for executive stock options exercised by executives, while Panel B presents results for shares granted to executives. In both panels, Column (1) reports results for the total number of shares exercised or granted through stock options by all executives, while Columns (2) and (3) report results for CEOs and CFOs, respectively. All columns control for firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 6. Tax Planning: Vesting Period Adjustments in Stock Compensation Plans

	(1) Remaining Vesting Period of Stock Option (<i>OPT VEST</i>)	(2) Remaining Vesting Period of Other Stock Compensation (<i>OTHER VEST</i>)
<i>REP_FIRM</i>	-0.011 (-0.26)	0.020 (0.38)
<i>POST_TAX</i>	0.072* (1.84)	-0.007 (-0.14)
<i>REP_FIRM * POST_TAX</i>	-0.003 (-0.09)	-0.082* (-1.79)
<i>SIZE</i>	0.320*** (2.94)	0.515*** (4.45)
<i>QUICK</i>	0.011 (1.34)	0.018* (1.88)
<i>LEVERAGE</i>	-0.095 (-0.61)	-0.258 (-1.40)
<i>SALE_GROWTH</i>	-0.024 (-1.37)	-0.002 (-0.10)
<i>ROA</i>	-0.078 (-1.09)	-0.106 (-1.34)
<i>MTB</i>	-0.003 (-1.61)	-0.001 (-0.66)
<i>STD_CFO</i>	-0.444** (-2.05)	0.120 (0.50)
<i>STD_SALES</i>	0.188 (1.26)	0.121 (0.91)
<i>GDP_GROWTH</i>	-0.014 (-0.22)	-0.381*** (-4.59)
<i>S&P500_RETURN</i>	-0.092*** (-5.62)	-0.042** (-2.10)
<i>INTERCEPT</i>	-0.252 (-0.32)	-0.826 (-0.97)
Firm Fixed Effect	Yes	Yes
Observations	9,862	9,862
Adjusted R-Squared	0.018	0.034

This table examines whether firms shorten the remaining vesting period for stock compensation to employees following the implementation of the IRA excise tax, using a firm-year panel from 2022 to 2024. Column (4) focuses on stock options, while Column (5) focuses on other stock compensation. All columns control for firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 7. Cross-Sectional Analysis: Technology Firms vs. Other Firms

	Stock Repurchase (<i>REPURCHASE</i>)	
<i>TECH</i>	-0.001** (-2.10)	-0.001** (-2.17)
<i>POST_TAX</i>	-0.001*** (-6.19)	
<i>TECH * POST_TAX</i>	0.001*** (4.24)	
<i>YR2023</i>		-0.001*** (-5.33)
<i>YR2024</i>		-0.001*** (-3.40)
<i>TECH * YR2023</i>		0.001*** (2.96)
<i>TECH * YR2024</i>		0.002*** (4.54)
<i>SIZE</i>	-0.001 (-1.51)	-0.001 (-1.52)
<i>QUICK</i>	-0.000 (-0.26)	-0.000 (-0.27)
<i>LEVERAGE</i>	0.000 (0.11)	0.000 (0.15)
<i>SALE_GROWTH</i>	-0.000 (-1.24)	-0.000 (-1.22)
<i>ROA</i>	0.002*** (4.02)	0.002*** (4.04)
<i>MTB</i>	-0.000 (-0.12)	-0.000 (-0.13)
<i>STD_CFO</i>	0.002*** (2.80)	0.002*** (2.74)
<i>STD_SALES</i>	-0.001 (-0.52)	-0.002 (-0.59)
<i>GDP_GROWTH</i>	0.000 (0.08)	-0.000 (-0.15)
<i>S&P500_RETURN</i>	0.000 (0.85)	-0.000 (-0.26)
<i>INTERCEPT</i>	0.009*** (3.38)	0.009*** (3.48)
Industry Fixed Effect	Yes	Yes
Observations	36,535	36,535
Adjusted R-Squared	0.003	0.004

This table examines whether the impact of the IRA excise tax on stock repurchases differs between technology firms and firms in other sectors using a firm-quarter panel from 2022 Q1 through 2024 Q4. A firm is classified as a technology firm if its two-digit SIC code equals 35 (industrial and computer

equipment), 36 (electronic and electrical equipment), 48 (communications), or 73 (business services, including software and information technology). Column (1) reports results using a single post-tax indicator (*POST_TAX*), while Column (2) presents year-by-year results (*YR2023* and *YR2024*). All regressions include firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 8. Cross-Sectional Analysis: Institutional Investor Ownership

	Stock Repurchase (<i>REPURCHASE</i>)					
	Transient Institutional Ownership		Quasi-Indexer Institutional Ownership		Dedicated Institutional Ownership	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>IOR_HIGH</i>	-0.000 (-0.09)	-0.000 (-0.05)	0.001*** (3.17)	0.001*** (3.22)	0.001*** (2.71)	0.001*** (2.73)
<i>POST_TAX</i>	-0.001*** (-4.23)		0.000 (0.33)		-0.000 (-0.42)	
<i>IOR_HIGH * POST_TAX</i>	0.001* (1.82)		-0.001*** (-4.34)		-0.001*** (-3.35)	
<i>YR2023</i>		-0.001*** (-4.01)		0.000 (0.20)		-0.000 (-0.08)
<i>YR2024</i>		-0.000 (-0.92)		0.001** (2.00)		0.000 (1.09)
<i>IOR_HIGH * YR2023</i>		0.001** (2.25)		-0.001*** (-3.49)		-0.001*** (-3.17)
<i>IOR_HIGH * YR2024</i>		0.000 (1.02)		-0.002*** (-4.43)		-0.001*** (-2.93)
<i>SIZE</i>	-0.001** (-2.10)	-0.001** (-2.10)	-0.001* (-1.82)	-0.001* (-1.70)	-0.001* (-1.93)	-0.001* (-1.92)
<i>QUICK</i>	-0.000 (-0.73)	-0.000 (-0.70)	-0.000 (-0.36)	-0.000 (-0.30)	-0.000 (-0.51)	-0.000 (-0.50)
<i>LEVERAGE</i>	0.001 (0.95)	0.001 (0.94)	0.001 (0.78)	0.001 (0.72)	0.001 (0.87)	0.001 (0.84)
<i>SALE_GROWTH</i>	-0.000 (-0.61)	-0.000 (-0.57)	-0.000 (-0.60)	-0.000 (-0.52)	-0.000 (-0.61)	-0.000 (-0.55)
<i>ROA</i>	0.005*** (5.81)	0.005*** (5.79)	0.005*** (5.74)	0.005*** (5.70)	0.005*** (5.70)	0.005*** (5.67)
<i>MTB</i>	-0.000 (-0.74)	-0.000 (-0.72)	-0.000 (-0.74)	-0.000 (-0.72)	-0.000 (-0.67)	-0.000 (-0.66)

<i>STD_CFO</i>	0.003** (2.10)	0.003** (2.03)	0.003* (1.76)	0.003* (1.80)	0.003* (1.77)	0.003* (1.73)
<i>STD_SALES</i>	0.004 (1.17)	0.005 (1.20)	0.004 (1.17)	0.004 (1.17)	0.004 (1.16)	0.004 (1.18)
<i>GDP_GROWTH</i>	-0.000 (-1.09)	-0.000 (-1.46)	-0.000 (-0.94)	-0.000 (-1.31)	-0.000 (-1.03)	-0.000 (-1.42)
<i>S&P500_RETURN</i>	-0.000 (-0.12)	-0.000 (-1.52)	0.000 (0.07)	-0.000 (-1.45)	0.000 (0.02)	-0.000 (-1.47)
<i>INTERCEPT</i>	0.011*** (3.42)	0.013*** (3.66)	0.010*** (2.86)	0.010*** (2.99)	0.010*** (3.07)	0.011*** (3.29)
Firm Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	25,955	25,955	25,955	25,955	25,955	25,955
Adjusted R-Squared	0.005	0.005	0.006	0.006	0.005	0.005

This table examines whether institutional investor ownership structure moderates firms' responses to the IRA excise tax on stock repurchases using a firm-quarter panel from 2022 Q1 through 2024 Q4. Institutional investors are classified into three categories based on their portfolio turnover and diversification characteristics: transient, quasi-indexer, and dedicated investors. Columns (1) and (2) report results for transient institutional ownership, Columns (3) and (4) for quasi-indexer ownership, and Columns (5) and (6) for dedicated ownership. *IOR_HIGH* equals one for firm-quarters with ownership by a given institutional investor type above the quarterly sample mean and zero otherwise. Columns (1), (3), and (5) use a single post-tax indicator (*POST_TAX*), while Columns (2), (4), and (6) present year-by-year results (*YR2023* and *YR2024*). All columns control for firm and year-quarter fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 9. Shifts in Compensation Expenses

Panel A: Compensation of Employees		
	(1) Employee Equity Compensation (<i>EMP EQUITY</i>)	(2) Employee Total Compensation (<i>EMP TOTAL</i>)
<i>REP_FIRM</i>	0.181 (1.24)	-1.053 (-0.57)
<i>POST_TAX</i>	-0.153 (-1.12)	-1.049 (-0.61)
<i>REP_FIRM * POST_TAX</i>	-0.034 (-0.25)	-1.143 (-0.67)
<i>SIZE</i>	-0.544 (-1.48)	-11.505** (-2.50)
<i>QUICK</i>	-0.046 (-0.86)	-0.390 (-1.37)
<i>LEVERAGE</i>	3.287*** (3.10)	29.280** (2.16)
<i>SALE_GROWTH</i>	-0.027 (-0.29)	-1.045 (-0.96)
<i>ROA</i>	-2.835*** (-3.34)	-17.529** (-2.35)
<i>MTB</i>	-0.016** (-2.27)	-0.173 (-1.61)
<i>STD_CFO</i>	-1.464 (-0.79)	-9.682 (-0.38)
<i>STD_SALES</i>	1.711* (1.70)	4.158 (0.41)
<i>GDP_GROWTH</i>	0.045 (0.25)	2.201 (0.73)
<i>S&P500_RETURN</i>	0.035 (0.52)	1.245 (1.54)
<i>INTERCEPT</i>	4.968** (2.04)	98.392*** (2.95)
Firm Fixed Effect	Yes	Yes
Observations	10,673	2,560
Adjusted R-Squared	0.060	0.081

Panel B: Compensation of Executives			
	(1) Executive Equity Compensation (<i>EXE EQUITY</i>)	(2) Executive Cash Compensation (<i>EXE CASH</i>)	(3) Executive Total Compensation (<i>EXE TOTAL</i>)
<i>REP_FIRM</i>	-0.069	-0.075**	-0.167**

	(-1.23)	(-2.39)	(-2.01)
<i>POST_TAX</i>	-0.074	-0.054*	-0.118
	(-1.49)	(-1.78)	(-1.62)
<i>REP_FIRM * POST_TAX</i>	0.043	0.024	0.047
	(0.90)	(0.81)	(0.67)
<i>SIZE</i>	-0.152*	-0.121***	-0.270***
	(-1.94)	(-2.92)	(-2.61)
<i>QUICK</i>	0.001	0.021**	0.030
	(0.13)	(2.01)	(1.64)
<i>LEVERAGE</i>	0.504**	0.531***	1.139***
	(2.25)	(3.25)	(3.37)
<i>SALE_GROWTH</i>	0.045	0.003	0.056
	(1.14)	(0.16)	(1.14)
<i>ROA</i>	-0.376*	-0.366***	-0.768**
	(-1.72)	(-2.82)	(-2.32)
<i>MTB</i>	-0.003	-0.001	-0.004
	(-1.28)	(-1.30)	(-1.46)
<i>STD_CFO</i>	0.360	1.599***	2.674**
	(0.52)	(2.65)	(2.22)
<i>STD_SALES</i>	-0.333*	-0.186	-0.538**
	(-1.71)	(-1.57)	(-2.01)
<i>GDP_GROWTH</i>	-0.213***	0.041	-0.145*
	(-3.67)	(1.48)	(-1.81)
<i>S&P500_RETURN</i>	0.084***	0.025***	0.109***
	(5.65)	(3.39)	(4.97)
<i>INTERCEPT</i>	1.957***	0.862**	2.690***
	(2.97)	(2.56)	(3.21)
Firm Fixed Effect	Yes	Yes	Yes
Observations	4,102	4,102	4,102
Adjusted R-Squared	0.040	0.140	0.077

This table examines whether firms adjusted employee and executive compensation following the implementation of the IRA excise tax using a firm-year panel from 2022 to 2024. presents results for employee compensation based on Compustat data. Column (1) reports results for employee equity compensation (*EMP_EQUITY*) and Column (2) reports results for total employee compensation (*EMP_TOTAL*). Panel B presents results for executive compensation based on ExecuComp data. Column (1) reports results for executive equity compensation (*EXE_EQUITY*), Column (2) reports results for executive cash compensation (*EXE_CASH*), and Column (3) reports results for executive total compensation (*EXE_TOTAL*). All columns control for firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

Table 10. Placebo Tests: Canadian Firms

	Stock Repurchase (<i>REPURCHASE</i>)		Dividend Yield (<i>DIVIDENDS</i>)		Total Payout (<i>TOTAL PAYOUT</i>)	
	(1)	(2)	(3)	(4)	(5)	(6)
	<i>POST_TAX</i>	-0.003 (-1.44)		0.002** (2.16)		-0.004* (-1.78)
<i>YR2023</i>		0.018 (0.98)		0.014 (1.63)		0.002 (0.10)
<i>YR2024</i>		0.027 (0.92)		0.021 (1.52)		-0.001 (-0.02)
<i>YR2025</i>		0.034 (0.94)		0.025 (1.50)		0.000 (0.01)
<i>SIZE</i>	-0.001* (-1.70)	-0.001* (-1.70)	0.000 (1.12)	0.000 (1.12)	-0.001 (-1.39)	-0.001 (-1.39)
<i>QUICK</i>	0.000 (0.90)	0.000 (0.90)	-0.000 (-1.15)	-0.000 (-1.15)	-0.000 (-0.06)	-0.000 (-0.06)
<i>LEVERAGE</i>	-0.002 (-1.60)	-0.002 (-1.60)	0.000 (0.07)	0.000 (0.07)	-0.003 (-1.56)	-0.003 (-1.56)
<i>SALE_GROWTH</i>	-0.000*** (-2.74)	-0.000*** (-2.74)	-0.000 (-0.09)	-0.000 (-0.09)	-0.000** (-1.98)	-0.000** (-1.98)
<i>ROA</i>	0.004** (2.19)	0.004** (2.19)	0.002 (1.57)	0.002 (1.57)	0.008** (2.46)	0.008** (2.46)
<i>MTB</i>	0.000 (0.98)	0.000 (0.98)	-0.000 (-0.74)	-0.000 (-0.74)	0.000 (0.96)	0.000 (0.96)
<i>STD_CFO</i>	0.012*** (3.19)	0.012*** (3.19)	0.006** (2.18)	0.006** (2.18)	0.017*** (3.45)	0.017*** (3.45)
<i>STD_SALES</i>	-0.004 (-0.57)	-0.004 (-0.57)	-0.010** (-2.47)	-0.010** (-2.47)	-0.012 (-1.32)	-0.012 (-1.32)
<i>GDP_GROWTH</i>	-0.001 (-1.31)	0.011 (0.96)	0.000 (0.66)	0.007 (1.42)	-0.001 (-1.63)	0.000 (0.02)
<i>S&P500_RETURN</i>	0.002* (1.93)	-0.017 (-0.90)	-0.000 (-0.86)	-0.013 (-1.44)	0.004*** (2.68)	0.002 (0.07)
<i>INTERCEPT</i>	0.001 (0.24)	0.074 (1.01)	0.003 (0.78)	0.049 (1.48)	0.001 (0.10)	0.009 (0.10)

Firm Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year-Quarter Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6392	6392	6392	6392	6392	6392
Adjusted R-Squared	0.014	0.014	0.020	0.020	0.015	0.015

Panel B: Tax Planning: Small Repurchase (< 1 Million)

	Small Repurchase (<i>REP SMALL</i>)	
	(1)	(2)
<i>POST_TAX</i>	-0.003 (-0.16)	
<i>YR2023</i>		-0.002 (-0.11)
<i>YR2024</i>		0.003 (0.12)
<i>SIZE</i>	-0.033 (-0.64)	-0.033 (-0.64)
<i>QUICK</i>	-0.002 (-0.53)	-0.002 (-0.52)
<i>LEVERAGE</i>	0.160* (1.94)	0.159* (1.94)
<i>SALE_GROWTH</i>	0.008 (0.85)	0.008 (0.86)
<i>ROA</i>	-0.060 (-0.75)	-0.061 (-0.76)
<i>MTB</i>	-0.001** (-2.00)	-0.001** (-2.00)
<i>STD_CFO</i>	-0.805*** (-3.50)	-0.806*** (-3.51)
<i>STD_SALES</i>	0.468 (1.20)	0.468 (1.20)
<i>GDP_GROWTH</i>	-0.002 (-0.30)	-0.001 (-0.23)

<i>S&P500_RETURN</i>	0.005 (0.36)	0.002 (0.25)
<i>INTERCEPT</i>	0.774** (2.12)	0.789** (2.17)
Firm Fixed Effect	Yes	Yes
Observations	5489	5489
Adjusted R-Squared	0.691	0.691

Panel C: Shares Issued through Equity-Based Compensation Plans to Employees

	(1) Total Equity-Based Compensation Plans (<i>EQ_AWARD</i>)	(2) Stock Option (<i>OPTIONS</i>)	(3) Restricted Stock Unit (<i>RSU</i>)	(4) Employee Stock Purchase Plan (<i>ESPP</i>)
<i>REP_FIRM</i>	-0.012 (-0.59)	-0.004 (-0.35)	-0.006 (-0.54)	0.000 (1.05)
<i>POST_TAX</i>	-0.008 (-0.55)	0.007 (0.94)	-0.017** (-2.12)	0.000 (1.05)
<i>REP_FIRM * POST_TAX</i>	0.004 (0.27)	0.001 (0.09)	0.007 (0.85)	-0.000 (-1.05)
<i>SIZE</i>	0.014 (0.38)	0.038** (2.07)	-0.021 (-1.00)	-0.000 (-0.99)
<i>QUICK</i>	0.000 (0.14)	0.000 (0.20)	-0.000 (-0.28)	0.000 (0.68)
<i>LEVERAGE</i>	0.044 (0.41)	-0.044 (-0.73)	0.036 (1.05)	0.000 (1.09)
<i>SALE_GROWTH</i>	0.003 (0.29)	0.004 (0.84)	-0.003 (-0.56)	-0.000 (-0.68)
<i>ROA</i>	0.089 (0.73)	-0.018 (-0.98)	0.075 (1.08)	0.000 (1.02)
<i>MTB</i>	0.001 (0.67)	0.000 (0.33)	-0.000 (-0.36)	0.000 (1.00)
<i>STD_CFO</i>	-0.067	0.090	-0.111	-0.000

	(-0.35)	(1.24)	(-1.18)	(-1.08)
<i>STD_SALES</i>	0.107	0.010	0.052	0.000
	(1.03)	(0.33)	(0.91)	(0.61)
<i>GDP_GROWTH</i>	-0.032	-0.029**	-0.003	0.000
	(-1.22)	(-2.03)	(-0.19)	(0.93)
<i>S&P500_RETURN</i>	0.023***	0.002	0.017***	0.000
	(2.61)	(0.55)	(3.01)	(0.27)
<i>INTERCEPT</i>	-0.065	-0.169	0.112	0.000
	(-0.29)	(-1.44)	(0.94)	(1.30)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Observations	1,415	1,415	1,415	1,415
Adjusted R-Squared	0.018	0.009	0.030	0.095

This table provides results of placebo tests using Canadian firms as a comparison. Panel A examines changes in stock repurchases (*REPURCHASE*), dividend yields (*DIVIDENDS*), and total payouts (*PAYOUT*) after the introduction of the IRA excise tax from 2022 Q1 through 2025 Q2. Columns (1), (3), and (5) report results using a single post-tax indicator (*POST_TAX*), while Columns (2), (4), and (6) present year-by-year results (*YR2023*, *YR2024*, and *YR2025*). All columns control for firm and year-quarter fixed effects. Panel B examines the impact of the IRA excise tax provisions on the likelihood of small repurchases (*REP_SMALL*) using a firm-quarter panel from 2022 Q1 through 2024 Q4. Column (1) reports results using a single post-tax indicator (*POST_TAX*), while Column (2) presents year-by-year results (*YR2023* and *YR2024*). Panel C examines whether Canadian firms increased equity-based compensation issued to employees following the implementation of the IRA excise tax, using a firm-year panel from 2022 to 2024. Column (1) reports results for the total number of shares exercised through stock options, restricted stock units (RSUs), employee benefit plans (EBPs), and employee stock purchase plans (ESPPs), while Columns (2)-(5) report results for these four components separately. All columns control for firm fixed effects. Coefficient significance tests use clustered standard errors within a firm. Reported in parentheses are *t*-statistics. Variable definitions are provided in Appendix A. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed).

APPENDIX A. Variable Definitions

Variable Name	Definition
Dependent Variable	
<i>REPURCHASE</i>	Stock repurchases scaled by the market value of equity
<i>DIVIDENDS</i>	Dividends divided by the market value of equity
<i>TOTAL_PAYOUT</i>	The sum of <i>REPURCHASE</i> and <i>DIVIDENDS</i>
<i>REP_SMALL</i>	Equals one if a firm's total annual repurchase amount is below one million dollars, and zero otherwise
<i>EQ_AWARD</i>	The total number of shares exercised through stock options, restricted stock units, employee benefit plans, and employee stock purchase plans, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPTIONS</i>	The number of shares exercised through stock options, standardized by the total number of common shares outstanding and multiplied by 100
<i>RSU</i>	The number of shares exercised through restricted stock units, standardized by the total number of common shares outstanding and multiplied by 100
<i>EBP</i>	The number of shares exercised through employee benefit plans, standardized by the total number of common shares outstanding and multiplied by 100
<i>ESPP</i>	The number of shares exercised through employee stock purchase plans, standardized by the total number of common shares outstanding and multiplied by 100
<i>EQ_GRANT</i>	The total number of shares granted to employees through stock options, restricted stock units, employee benefit plans, and employee stock purchase plans, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPT_GRANT</i>	The number of shares granted to employees through stock options, standardized by the total number of common shares outstanding and multiplied by 100
<i>RSU_GRANT</i>	The number of shares granted to employees through restricted stock units, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPT_VEST</i>	The weighted-average remaining requisite service period (in years) for unvested stock option awards, where the weighting is based on the remaining unrecognized stock-based compensation expense, as disclosed under ASC 718
<i>OTHER_VEST</i>	The weighted-average remaining requisite service period (in years) for other unvested stock compensation, where the weighting is based on the remaining unrecognized stock-based compensation expense, as disclosed under ASC 718
<i>OPTION_EXE</i>	The total number of shares exercised through stock options by all executives, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPTION_CEO</i>	The number of shares exercised through stock options by the CEO, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPTION_CFO</i>	The number of shares exercised through stock options by the CFO, standardized by the total number of common shares outstanding and multiplied by 100

<i>OPTION_EXE_GRANT</i>	The total number of shares granted to all executives through stock options, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPTION_CEO_GRANT</i>	The number of shares granted to the CEO through stock options, standardized by the total number of common shares outstanding and multiplied by 100
<i>OPTION_CFO_GRANT</i>	The number of shares granted to the CFO through stock options, standardized by the total number of common shares outstanding and multiplied by 100
<i>EMP_EQUITY</i>	Employee stock-based compensation expense standardized by market capitalization and multiplied by 100
<i>EMP_TOTAL</i>	Employee total compensation expense standardized by market capitalization and multiplied by 100
<i>EXE_EQUITY</i>	Total executive compensation excluding salary and bonus, standardized by market capitalization and multiplied by 100
<i>EXE_CASH</i>	Executive cash compensation, which includes salary and bonus, standardized by market capitalization and multiplied by 100
<i>EXE_TOTAL</i>	Executive total compensation standardized by market capitalization and multiplied by 100

Independent Variable

<i>POST_TAX</i>	Equals one for quarters or years after the implementation of the excise tax and zero otherwise
<i>YR2023</i>	Equal to one for observations in the year 2023 and zero otherwise
<i>YR2024</i>	Equal to one for observations in the year 2024 and zero otherwise
<i>YR2025</i>	Equal to one for observations in the year 2025 and zero otherwise
<i>REP_FIRM</i>	Equal one for firm-years whose annual repurchases exceed one million dollars and zero otherwise

Moderating Variables

<i>IOR_TRANSIENT</i>	Ownership of transient institutional investors as a percentage of firms' total shares outstanding
<i>IOR_QUASI</i>	Ownership of quasi-indexer institutional investors as a percentage of firms' total shares outstanding
<i>IOR_DEDICATE</i>	Ownership of dedicated institutional investors as a percentage of firms' total shares outstanding
<i>TECH</i>	Equals one for technology firms and zero otherwise. A firm is classified as a technology firm if its two-digit SIC code equals 35 (industrial and computer equipment), 36 (electronic and electrical equipment), 48 (communications), or 73 (business services, including software and information technology)

Control Variable

<i>SIZE</i>	The natural logarithm of total assets
<i>QUICK</i>	The ratio of cash holdings and receivables to total current liabilities
<i>LEVERAGE</i>	The ratio of debt in current liabilities and total long-term debt to total assets
<i>SALE_GROW</i>	The change in sales revenue from the prior period, divided by lagged sales revenue
<i>ROA</i>	Net income divided by total assets
<i>MTB</i>	The ratio of the market value of equity to the book value of equity
<i>STD_CFO</i>	The standard deviation of cash flow from operations over years $t-5$ to $t-1$, scaled by total assets

<i>STD_SALES</i>	The standard deviation of sales revenue over years $t-5$ to $t-1$, scaled by total assets
<i>GDP_GROWTH</i>	The percentage change in U.S. real gross domestic product (GDP), measured quarterly or annually, depending on the analysis
<i>S&P500_RETURN</i>	The return of the S&P 500 index, measured quarterly or annually, depending on the analysis
