

Net Equity Issuance and Stock Returns: A Supply-Side Perspective on Equity Issuance and Market Timing

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Abstract. This paper asks whether firms with greater net equity issuance (NEI) subsequently earn lower stock returns. The underlying intuition is a market-timing one: firms may choose to sell more equity when market valuations are especially favorable, a setting that may also be followed by lower expected return. In a market where stock repurchases are economically material, gross equity issuance may overstate the effective equity supply facing investors. This paper defines NEI as stock issuance minus stock repurchases and scales it by lagged market capitalization to construct a standardized measure of net equity supply. Using a matched CRSP-Compustat sample of U.S. listed firms from 2010 to 2024, the study applies portfolio sorts and annual predictive regressions to examine the relation between NEI/ME and future stock returns. The estimates reveal a clear negative pattern: firms toward the upper end of the NEI/ME distribution underperform those toward the lower end over next year. The coefficient remains negative and statistically significant after the model adds size, book-to-market, sales-to-assets, calendar-year effects, and firm-level clustered inference.

Keywords: Net equity issuance, Equity issuance, Share repurchases, Market timing

1. Introduction

Equity issuance is an important corporate financing decision that is closely related to market valuation conditions. Corporate insiders may observe firm-specific information that is not fully available to external investors. When a firm's equity is perceived as overvalued, issuing shares becomes an attractive source of financing because the firm can raise capital at a relatively low cost. This market-timing view implies that equity issuance signals information about future stock returns. If firms are more likely to issue equity when valuations are high, and if these valuations subsequently correct, firms with greater equity issuance tend to earn lower future returns. This intuition is closely related to the information-asymmetry view of external financing and the market-timing literature on equity issuance [1, 2]. However, gross equity issuance may be an incomplete measure of the equity supply that investors actually face when share repurchases are economically material. A firm may issue new equity while also repurchasing shares in the same period. In this case, gross issuance alone overstates the firm's effective contribution to market equity supply. A net measure that subtracts repurchases from issuance can therefore provide a more direct indicator of the firm's overall equity financing decision. This distinction is especially important in recent decades, as

repurchases have become a major component of corporate payout policy. This paper studies net equity issuance (NEI), defined as stock issuance minus stock repurchases, and examines whether standardized NEI is negatively associated with subsequent stock returns. The main explanatory variable is NEI scaled by lagged market capitalization, a scaling that facilitates comparison across firms of different sizes. Using a matched CRSP-Compustat sample of U.S. listed firms from 2010 to 2024, this study applies portfolio sorts and annual predictive regressions to examine the relation between NEI/ME and future stock returns. The main contribution of this study is to update the issuance-return relation by measuring equity supply net of repurchases. While prior issuance-based studies often focus on gross equity issuance, this paper emphasizes that net issuance may be more informative when firms actively repurchase shares.

2. Theoretical framework and hypothesis

2.1. Information asymmetry and equity issuance

The framework starts from an informational gap between insiders and market participants. Managers have access to internal forecasts, project information, and financing requirements that external investors may observe only imperfectly. When a firm's equity is perceived as overvalued, issuing new shares becomes an attractive financing choice because the firm can obtain external capital at a relatively low cost. This view is closely related to the market-timing theory of equity issuance, which suggests that firms may choose to issue equity when market conditions are favorable [1, 2]. Under this interpretation, equity issuance is both a financing decision and a potential signal of valuation conditions. If managers are more likely to issue equity when shares are highly valued, then firms with greater equity issuance may experience lower subsequent returns as valuations subsequently correct. Prior studies on equity issuance and future returns provide evidence that issuance activity is negatively related to subsequent stock performance [3-5]. This motivates the use of issuance-related variables as predictors of future returns.

2.2. Share repurchases and net equity supply

Although gross equity issuance is informative, it does not fully capture the effective equity supply that investors face when share repurchases are economically material. A firm may issue new shares and repurchase existing shares within the same period. In this case, gross issuance alone overstates the firm's net contribution to market equity supply. Repurchases are also an important part of corporate payout policy and reflect managers' views about valuation, cash distribution, capital structure, or dilution management [6-9]. For this reason, a net measure of equity issuance provides a more complete description of firms' equity financing decisions. Net equity issuance subtracts stock repurchases from stock issuance. NEI is positive when issuance exceeds repurchases and negative when repurchases exceed issuance. Compared with gross issuance, NEI better reflects the amount of equity that the firm supplies to the market after accounting for repurchases.

2.3. Hypothesis development

This paper examines whether standardized net equity issuance is negatively associated with future stock returns. The main explanatory variable is NEI scaled by lagged market capitalization. Scaling by market capitalization is necessary because raw issuance and repurchase amounts are systematically larger for larger firms. NEI/ME therefore provides a standardized measure of net

equity supply that is more comparable across firms. If firms tend to issue equity when valuations are favorable, and if repurchases offset part of gross issuance, then firms with higher standardized NEI should experience lower future returns. This leads to the main hypothesis of the study.

H1: Standardized net equity issuance (NEI/ME) is negatively associated with subsequent stock returns.

3. Data and methodology

3.1. Sample and data

The dataset merges CRSP market records with Compustat annual accounting information for U.S. public companies over 2010–2024. CRSP supplies monthly returns, prices, shares outstanding, and delisting information. Firm-level accounting variables, including stock issuance, stock repurchases, total assets, book equity, sales, and fiscal-year-end price, are sourced from Compustat's Annual Fundamentals file. The CRSP and Compustat datasets are linked using the CRSP/Compustat Merged (CCM) link table, which maps Compustat firm identifiers (GVKEY) to CRSP security identifiers (PERMNO) over valid link periods.

Each observation in the estimation sample represents one firm-year. Monthly CRSP returns are first adjusted for delisting returns whenever delisting information is available. Future annual stock returns are then computed by compounding monthly delisting-adjusted returns over the subsequent calendar year. To improve measurement quality, firm-year observations are retained only if at least ten valid monthly returns are available in the following year. The final sample used in the main analysis contains 83,652 firm-year observations over the period 2011 to 2023 after applying standard data filters. The sample size varies across regression specifications because some control variables, particularly book-to-market and sales-to-assets, are unavailable for a subset of observations. The largest specifications use 83,652 observations, while the most complete specification, which includes book-to-market and sales-to-assets, uses 56,699 observations.

3.2. Variable construction

The outcome variable measures each firm's stock performance over the next calendar year. When CRSP reports a delisting return, it is combined with the regular monthly return before annual performance is constructed:

$$\text{Ret}_{i,m}^{\text{adj}} = (1 + \text{Ret}_{i,m}) (1 + \text{DLRET}_{i,m}) - 1 \quad (1)$$

If no delisting return is available, the adjusted return equals the original CRSP monthly return. Future annual return is then calculated by compounding monthly delisting-adjusted returns over the following calendar year:

$$\text{AnnRet}_{i,t+1} = \prod_{m=1}^{12} (1 + \text{Ret}_{i,t+1,m}^{\text{adj}}) - 1 \quad (2)$$

where $\text{AnnRet}_{i,t+1}$ denotes the annual return of firm i in the year following the measurement of accounting variables. Observations are required to have at least ten valid monthly returns in the following year.

The key independent variable is net equity issuance, constructed from Compustat annual cash-flow variables:

$$NEI_{i,t} = SSTK_{i,t} - PRSTKC_{i,t} \quad (3)$$

where SSTK denotes stock issuance and PRSTKC denotes stock repurchases. A positive NEI value indicates that the firm is a net issuer of equity, while a negative value indicates that the firm is a net repurchaser.

To ensure comparability across firms of different sizes, NEI is scaled by lagged market capitalization:

$$NEI/ME_{i,t} = \frac{NEI_{i,t}}{ME_{i,t-1}} \quad (4)$$

Market capitalization is computed using CRSP price and shares outstanding:

$$ME_{i,t} = |Price_{i,t}| \times SharesOutstanding_{i,t}/1000 \quad (5)$$

The division by 1000 converts CRSP market capitalization into million dollars, because CRSP shares outstanding are reported in thousands whereas Compustat cash-flow variables are in million dollars. This ensures unit consistency between NEI and market capitalization before constructing NEI/ME.

The regressions progressively introduce three firm characteristics. Size is defined as the natural logarithm of lagged market equity, book-to-market equals book equity divided by market equity, and sales-to-assets equals annual sales scaled by total assets. The first two variables are widely used in empirical asset-pricing research, alongside profitability and investment-related characteristics [10, 11]. To prevent a small number of extreme observations from dominating the estimates, NEI/ME and the forward annual return are winsorized at their sample 1st and 99th percentiles.

3.3. Empirical models

Two empirical exercises are reported. The first ranks firm-years by winsorized NEI/ME and assigns them to ten portfolios. For each decile, the following year's return is calculated on both an equal-weighted and a value-weighted basis. The principal portfolio statistic subtracts the return of the lowest-NEI/ME decile from that of the highest-NEI/ME decile. H1 therefore implies a negative spread.

The second approach is an annual predictive regression. The baseline specification relates future annual stock returns to standardized net equity issuance:

$$AnnRet_{i,t+1} = \alpha + \beta NEI/ME_{i,t} + \gamma X_{i,t} + \lambda_t + \epsilon_{i,t+1} \quad (6)$$

where $AnnRet_{i,t+1}$ is the winsorized annual return in the following calendar year, $NEI/ME_{i,t}$ is winsorized standardized net equity issuance, $X_{i,t}$ is a vector of firm-level controls, and λ_t denotes year fixed effects. The coefficient of interest is β . The main hypothesis predicts $\beta < 0$, meaning that firms with higher standardized net equity issuance earn lower subsequent annual stock returns.

The specification is expanded sequentially across four models. Model 1 contains NEI/ME and calendar-year indicators; Model 2 introduces firm size; Model 3 additionally controls for book-to-market; and Model 4 adds sales-to-assets. Inference is based on standard errors clustered by PERMNO, allowing observations from the same firm to remain correlated over time. The resulting estimates are interpreted as predictive associations rather than causal effects.

4. Empirical results and analysis

4.1. Descriptive statistics

The descriptive statistics in Table 1 report the distribution of the main variables used in the analysis. The raw NEI/ME variable contains extreme observations, with a maximum value above 1000. This reflects that very small firms may have unusually large issuance or repurchase amounts relative to lagged market capitalization. The raw annual return variable also contains extreme observations, with some returns above 6000 percent. Because these observations can strongly influence OLS estimates, the main analysis uses variables winsorized at the 1st and 99th percentiles.

Table 1. Distribution of main variables

Variable	N	Mean	P25	Median	P75	Min	Max
NEI/ME, raw	83,652	0.0653	-0.0012	0.0000	0.0003	-26.2263	1080.8786
NEI/ME, win.	83,652	0.0281	-0.0012	0.0000	0.0003	-0.1818	1.1323
Ann. return, raw	83,652	0.1006	-0.1423	0.0582	0.2515	-1.0000	65.3939
Ann. return, win.	83,652	0.0824	-0.1423	0.0582	0.2515	-0.8863	2.0489

Note: NEI/ME is calculated as stock issuance minus stock repurchases divided by lagged market capitalization. Future annual returns are compounded from delisting-adjusted monthly returns. Winsorized variables are used in the main portfolio and regression analyses.

The distribution of NEI/ME is highly concentrated around zero. The median value is zero, and the interquartile range is narrow, indicating that many firm-year observations involve little net equity issuance relative to market capitalization. At the same time, the upper tail is much larger than the lower tail, suggesting that some firms engage in substantial net issuance. This pattern justifies the use of winsorization and motivates the portfolio-sort and regression analyses below.

4.2. Portfolio sorts

Table 2 reports forward annual returns for decile portfolios formed on winsorized NEI/ME. Under both weighting methods, the return of the highest-NEI/ME decile is below that of the lowest-NEI/ME decile. The resulting high-minus-low spread is approximately -16.8 percentage points for the equal-weighted portfolios and -11.3 percentage points for the value-weighted portfolios. This pattern is consistent with H1, as firms with greater net issuance relative to market capitalization subsequently earn lower returns.

Table 2. Portfolio sorts based on NEI/ME

Portfolio spread	Equal-weighted annual return	Value-weighted annual return	Interpretation
High minus Low	-0.168	-0.113	Negative spread, consistent with H1

The portfolio-sort evidence is useful because it provides a transparent non-parametric comparison between high-NEI and low-NEI firms. However, portfolio sorts do not control for other firm characteristics that are related to expected returns.

4.3. Annual predictive regressions

Table 3 summarizes four firm-year predictive regressions. In every specification, the dependent variable is the winsorized return for the following year, while winsorized NEI/ME is the regressor of primary interest. Calendar-year fixed effects are included throughout, and statistical inference uses standard errors clustered by firm. The estimated NEI/ME coefficient is -0.269 in Model 1. It changes to -0.245 after firm size is introduced in Model 2 and remains at -0.245 when book-to-market is added in Model 3. Model 4 additionally controls for sales-to-assets and produces an estimate of -0.230 . All four coefficients are significant at the 1 percent level. Their limited variation across specifications indicates that the negative predictive association is not sensitive to the reported control variables.

Table 3. Annual predictive regressions

Variable	Model 1	Model 2	Model 3	Model 4
NEI/ME	-0.269***	-0.245***	-0.245***	-0.230***
Firm-clustered SE	(0.0145)	(0.0144)	(0.0148)	(0.0149)
Firm size	No	Yes	Yes	Yes
Book-to-market	No	No	Yes	Yes
Sales-to-assets	No	No	No	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	83,652	83,652	56,702	56,699
R-squared	0.0986	0.1005	0.1014	0.1024
Within R-squared	0.0099	0.0119	0.0127	0.0138

Note: The dependent variable is winsorized next-year annual stock return. Standard errors clustered by PERMNO are reported in parentheses. *** denotes statistical significance at the 1 percent level.

The regression results are consistent with H1. Economically, the negative coefficient means that firms with higher net equity issuance relative to market capitalization tend to earn lower subsequent annual returns. The result remains stable after adding size, book-to-market, and sales-to-assets controls, suggesting that the NEI-return relation is not simply a mechanical reflection of these observable firm characteristics. The evidence is consistent with the market-timing interpretation of equity issuance: firms that supply more net equity when financing conditions are favorable subsequently earn lower returns.

4.4. Robustness

Several features of the empirical design strengthen the results. First, annual returns are compounded from delisting-adjusted monthly returns, which reduces the risk that delisting events bias the return measure. Second, observations with fewer than ten valid monthly returns in the following year are excluded to improve the quality of the annual return calculation. Third, financial firms are excluded because their capital structures and regulatory constraints differ substantially from those of non-financial firms. Fourth, both NEI/ME and annual returns are winsorized at the 1st and 99th percentiles to limit the influence of extreme observations. Finally, the main regression results are reported using firm-clustered standard errors to account for serial correlation within firms over time.

5. Conclusion

Motivated by the market-timing view of equity issuance, the paper argues that net equity issuance provides a more direct measure of equity supply than gross issuance when firms actively repurchase shares. Gross equity issuance overstates the effective equity supply that investors face because it ignores shares retired through repurchases. NEI, defined as stock issuance minus stock repurchases and scaled by lagged market capitalization, therefore offers a standardized firm-level measure of net equity supply. The study finds a negative relation between NEI/ME and future annual stock returns. Portfolio sorts show that high-NEI/ME firms earn lower subsequent annual returns than low-NEI/ME firms. Annual predictive regressions further show that this negative relation remains statistically significant after controlling for firm size, book-to-market ratio, sales-to-assets ratio, year fixed effects, and standard errors clustered at the firm level. These findings support H1 and are consistent with the view that equity issuance contains information about future returns. The results should be interpreted carefully. The evidence supports a predictive relation between standardized NEI and subsequent annual returns, but it does not establish a strict causal effect of net issuance on returns or directly prove managerial market timing. A more causal design would require stronger identification of the timing and information available to managers and investors. Nevertheless, the findings suggest that net equity issuance conveys useful information about firm-level financing behavior and future stock returns. Future research could incorporate additional firm characteristics, such as profitability and leverage, compare cash-flow-based and share-count-based NEI measures, apply a stricter six-month accounting-data availability lag, and examine whether the NEI-return relation varies across market conditions or firm types.

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