

# Internet Appendix

## Methodological uncertainty in portfolio sorts

### I Sorting variables

In this section, we provide the details on the construction of the sorting variables. Then, we report the sorting variables' summary statistics over our sample period in Section I.9 below. In total, we analyze 68 sorting variables as reported in Table A.1 in the Appendix, which we group into eight groups to facilitate comparisons. Note that our construction closely follows Hou et al. (2020). Moreover, we replace any negative values of total assets (AT), sales (SALE), capital expenditures (CAPX), and inventories (INVT) as missing.

#### I.1 Financing

**Composite debt issuance.** We follow Lyandres et al. (2008) and measure composite debt issuance (CDI) for each firm in each fiscal year  $t$  from Compustat annual data as the logarithmic growth rate in the book value of debt from fiscal year  $t - 5$  to fiscal year  $t$ . The book value of debt is measured by the sum of current debt (DLC) and long-term debt (DLTT).

**Composite share issuance.** Daniel and Titman (2006) propose to measure composite share issuance (CSI) from CRSP data as the difference between the change in market equity and the cumulative log return of a stock. Both, the change in market equity and cumulative log returns are measured in each month from year  $t$  to year  $t - 5$ .

**Change in common equity.** To capture the change in common equity (DBE) according to Richardson et al. (2005), we calculate the following ratio from Compustat annual data:

$$DBE_t = \frac{CEQ_t - CEQ_{t-1}}{AT_{t-1}},$$

where CEQ represents common equity and AT total assets.

**Change in current operating liabilities.** Richardson et al. (2005) measure the change in current operating liabilities (DCOL) for each firm in each fiscal year  $t$  from annual Compustat data:

$$DCOL_t = \frac{(LCT_t - DLC_t) - (LCT_{t-1} - DLC_{t-1})}{AT_{t-1}},$$

where LCT are current liabilities, DLC short-term debt, and AT total assets. We replace missing values of DLC with zero.

**Change in financial liabilities.** We define the change in financial liabilities (DFNL) similar to Richardson et al. (2005) for each stock in each fiscal year  $t$  from annual Compustat data in the following way:

$$DFNL_t = \frac{(DLTT_t + DLC_t + PSTK_t) - (DLTT_{t-1} + DLC_{t-1} + PSTK_{t-1})}{AT_{t-1}},$$

where DLTT is long-term debt, DLC short-term debt, PSTK the value of preferred stocks, and AT total assets. Missing values of DLTT, DLC, and PSTK are set to zero if at least one of the three variables is available.

**Net debt financing.** We follow Bradshaw et al. (2006) and compute net debt financing (NDF) for each stock in each fiscal year  $t$  from annual Compustat data as:

$$NDF_t = \frac{DLTIS_t - DLTR_t + DLCCH_t}{\frac{1}{2}(AT_t + AT_{t-1})},$$

where DLTIS are cash proceeds from the issuance of long-term debt, DLTR are cash payments for long-term debt reductions, DLCCH are the net changes in current debt, and AT total assets. We replace missing values of DLCCH with zero. Data starts in January 1972 due to data availability of financing variables.

**Net equity financing.** We measure net equity financing (NEF) similar to Bradshaw et al. (2006) for each stock in each fiscal year  $t$  from annual Compustat data:

$$NEF_t = \frac{SSTK_t - PRSTKC_t - DV_t}{\frac{1}{2}(AT_t + AT_{t-1})},$$

where SSTK are proceeds from the sale of common and preferred stocks, PRSTKC are payments for the repurchase of common and preferred stocks, DV are cash payments for dividends, and AT total assets. Data starts in January 1972 due to data availability of financing variables.

**Net external financing.** We capture net external financing (NXF) for each stock in each fiscal year  $t$  similar to Bradshaw et al. (2006) by the sum of net debt financing and net equity financing. Both variables are described above. Data starts in January 1972 due to data availability of financing variables.

## I.2 Intangibles

**Advertisement expenses to market equity.** Chan et al. (2001) suggest measuring the advertising expense to market ratio (ADM) as advertising expenses (Compustat item XAD) divided by market equity, which is obtained from CRSP at the end of each fiscal year. We exclude observations with negative advertising expenses. We start our measure in January 1973 to ensure sufficient data coverage.

**Cash-flow volatility.** We follow Huang (2009) and compute operating cash flows to sales for each stock in each fiscal quarter  $q$  from quarterly Compustat data:

$$Operating\ cash\ flows_q = \frac{IBQ_q + DPQ_q + (WCAP_q - WCAP_{q-1})}{SALEQ_q},$$

where IBQ are quarterly income before extraordinary items, DPQ are quarterly depreciation and amortizations, WCAPQ are quarterly working capital, and SALEQ are quarterly sales. Cash-flow volatility (CFV) for each stock in each fiscal quarter corresponds to the standard deviation of operating cash flows during the past 16 quarters. We require a minimum of eight observations. We start our measure in January 1978 to ensure sufficient data coverage.

**Earnings' predictability.** Francis et al. (2004) define split-adjusted earnings per share (EPSA) from Compustat data as earnings per share (EPSPX) divided by the adjustment factor (AJEX). We follow Francis et al. (2004) and measure earnings predictability (EPRD) for each stock as the residual volatility ( $u_t$ ) from the following auto-regressive process:

$$EPSA_t = \alpha + \beta \cdot EPSA_{t-1} + u_t.$$

Moreover, we measure this auto-regressive process over the last ten years and always require ten years of non-missing observations.

**Hiring rate.** We follow Belo et al. (2014) and obtain the hiring rate (HR) for each stock in each fiscal year  $t$  from annual Compustat data:

$$HR_t = \frac{EMP_t - EMP_{t-1}}{\frac{1}{2}(EMP_t + EMP_{t-1})},$$

where EMP represents the number of employees. Moreover, we exclude firms with a hiring rate of zero.

**Kaplan and Zingales index for financing constraints.** We obtain the Kaplan and Zingales index (KZI) for each firm in each fiscal year from annual Compustat data by following Lamont et al. (2001):

$$KZI_t = -1.002 \cdot \frac{IB_t + DP_t}{PPENT_{t-1}} + 0.283 \cdot \frac{AT_t + ME_t - CEQ_t - TXDB_t}{AT_t} + 3.139 \cdot \frac{DLC_t + DLTT_t}{DLC_t + DLTT_t + SEQ_t} - 39.368 \cdot \frac{DVC_t + DVP_t}{PPENT_{t-1}} - 1.315 \cdot \frac{CHE_t}{PPENT_{t-1}},$$

where IB corresponds to income before extraordinary items, DP to depreciation and amortization, PPENT to property, plant, and equipment, AT to total assets, ME to market equity from CRSP at the end of each fiscal year, CEQ to common equity, TXDB to deferred taxes, DLC to current debt, DLTT to long-term debt, SEQ to shareholder equity, DVC to dividends of common stock, DVP to dividends of preferred stocks, and CHE to cash holdings.

**Labor force efficiency.** We define the labor force efficiency (LFE) as in Abarbanell and Bushee (1998) for each firm in each fiscal year  $t$  from annual Compustat data:

$$LFE_t = \left( \frac{SALE_t}{EMP_t} - \frac{SALE_{t-1}}{EMP_{t-1}} \right) \bigg/ \frac{SALE_{t-1}}{EMP_{t-1}},$$

where SALE corresponds to sales and EMP to employees.

**Operating leverage.** We follow Novy-Marx (2013) and compute operating leverage (OL) from Compustat data as cost of goods sold (COGS) plus selling, general and administrative expenses (XSGA), both scaled by current total assets (AT).

**R&D expenses to market equity.** Chan et al. (2001) propose to compute the R&D expense to market ratio (RDM) as R & D expenses (Compustat item XRD) divided by market equity from the end of each fiscal year. We obtain market equity data from CRSP and include only observations with positive R & D expenses. We start our measure in January 1976 because R & D expenses were standardized in 1975.

**Real-estate ratio.** We define the real-estate ratio (RER) similar to Tuzel (2010) with Compustat data. Prior to 1983, it corresponds to the sum of buildings (PPENB) and capital leases (PPENLS) scaled by net property, plant and equipment (PPENT). After the end of 1983, it is measured as the sum of buildings at cost (FATB) and leases at cost (FATL), both divided by gross property, plant and equipment (PPEGT). Subsequently, we winsorize the real estate ratios in each fiscal year at the 1 % and 99 % percentile. The industry-adjusted real-estate ratio is obtained by subtracting the industry average real-estate ratio from each stock-specific real-estate ratio. We use 2-digit SIC codes to assign stocks to industries. We always require at least five observations to calculate the industry average each year. Note that real estate data starts in 1969, limiting the observation period for this specific sorting variable. Data for the real estate ratio starts in January 1970 due to data availability.

**Tangibility.** We capture the tangibility (TAN) of each firm in each fiscal year according to Hahn and Lee (2009) from annual Compustat data:

$$TAN_t = \frac{CHE_t}{AT_t} + 0.715 \cdot \frac{RECT_t}{AT_t} + 0.547 \cdot \frac{INVT_t}{AT_t} + 0.535 \cdot \frac{PPEGT_t}{AT_t},$$

where CHE corresponds to cash holdings, RECT to accounts receivable, INVT to inventory, PPEGT to property, plant, and equipment, and AT to total assets.

**Whited and Wu index for financing constraints.** We closely follow Whited and Wu (2006) and measure financing constraints for each firm in each fiscal year  $t$  from annual Compustat data:

$$WW_t = -0.091 \cdot \frac{IB_t + DP_t}{AT_t} - 0.062 \cdot \mathbb{1}_{DVPSX.F > 0} + 0.021 \cdot \frac{DLTT_t}{AT_t} - 0.044 \cdot \ln(AT_t) + 0.102 \cdot ISG_t \\ - 0.035 \cdot \frac{SALE_t - SALE_{t-1}}{SALE_{t-1}},$$

where IB is income before extraordinary items, DP depreciation and amortization, AT total assets,  $\mathbb{1}_{DVPSX.F > 0}$  a dummy variable equal to one if the firm pays out cash dividends (DVPSX.F), DLTT long-term debt and SALE sales. Moreover, ISG is the industry growth rate of sales, while industries are defined by 3-digit SIC codes. Industries with less than two firms are excluded. Since Whited and Wu (2006) estimate this index with quarterly data, we replace the annual growth rates in industry sales growth and stock-specific sales growth with their implied quarterly compounded growth rates. Lastly, we winsorize the distribution of each sub-variable of the Whited and Wu index at the 1% and 99% quantile.

### I.3 Investments

**Abnormal corporate investment.** We measure abnormal corporate investments (ACI) from Compustat annual data for each firm in each fiscal year  $t$  as in Titman et al. (2004):

$$ACI_t = \frac{CE_t}{\frac{1}{3}(CE_{t-1} + CE_{t-2} + CE_{t-3})} - 1,$$

where CE corresponds to capital expenditures (Compustat item CAPX) divided by sales (SALE). We follow Hou et al. (2020) and exclude stocks with sales below 10 million dollars.

**Asset growth.** We follow Cooper et al. (2008) and measure asset growth (AG) for each stock in each fiscal year  $t$  from Compustat data as the change in total assets (AT) from year  $t$  to year  $t - 1$ , divided by total assets from year  $t - 1$ .

**Change in net operating assets** We follow Hirshleifer et al. (2004) and measure net operating assets for each stock in each fiscal year  $t$  from Compustat annual data:

$$Net\ operating\ assets_t = (AT_t - CHE_t) - (AT_t - DLC_t - DLTT_t - MIB_t - PSTK_t - CEQ_t),$$

where AT corresponds to total assets, CHE to cash and short-term investments, DLC to current liabilities, DLTT to long-term debt, MIB to minority interests, PSTK to the value of preferred stocks, and CEQ to common equity. Missing values in DLC, DLTT, MIB, and PSTK are set to zero. The change in net operating assets (DNOA) is then the difference between net operating assets of fiscal year  $t$  and fiscal year  $t - 1$  scaled by total assets of year  $t - 1$ .

**Change in property, plant, equipment and inventory to assets.** We add the annual change in gross property, plant and equipment (PPEGT) to the annual change in inventory (INVT) and scale this sum by one-year-lagged total assets (AT). Thus, we obtain the change in property, plant, equipment and inventories (DPIA) as in Lyandres et al. (2008) from Compustat data.

**Change in net non-cash working capital.** Following Richardson et al. (2005) we define non-cash working capital from Compustat data as:

$$WC_t = (ACT_t - CHE_t) - (LCT_t - DLC_t),$$

where ACT corresponds to current assets, CHE to cash, LCT to current liabilities, and DLC to short-term debt. We set missing values of DLC to zero. The change in net non-cash working capital (DWC) corresponds to the change of  $WC$  from fiscal year  $t$  to fiscal year  $t - 1$  scaled by total assets from fiscal year  $t - 1$ .

**Investment growth.** We compute investment growth (IG) from annual Compustat data as the annual change in capital expenditures (CAPX) from fiscal year  $t$  to year  $t-1$ , scaled by capital expenditures from year  $t-1$ .

**Inventory changes.** Thomas and Zhang (2002) suggest measuring the change in inventory (DINV) from Compustat data as the annual change in inventories (INVT) from fiscal year  $t$  to fiscal year  $t-1$ , divided by average total assets (AT) over the fiscal year  $t$  and  $t-1$ .

**Net operating assets.** We follow Hirshleifer et al. (2004) and compute net operating assets (NOA) from Compustat data:

$$NOA_t = \frac{(AT_t - CHE_t) - (AT_t - DLC_t - DLTT_t - MIB_t - PSTK_t - CEQ_t)}{AT_{t-1}},$$

where AT is total assets, CHE cash and short-term investments, DLC short-term debt, DLTT long-term debt, MIB minority interest, PSTK preferred stock, and CEQ common equity. We replace missing values of DLC, DLTT, MIB, and PSTK as zero.

**Operating accruals.** The definition of operating accruals (OA) before 1988 closely follows Sloan (1996):

$$OA_t = \frac{(\Delta ACT_t - \Delta CHE_t) - (\Delta LCT_t - \Delta DLC_t - \Delta TXP_t) - DP_t}{AT_{t-1}},$$

where ACT is current assets, CHE cash, LCT current liabilities, DLC short-term debt, TXP taxes payable, and DP depreciation and amortization. Moreover, we replace missing values of DLC and TXP with zero. Due to data availability, we follow Hribar and Collins (2002) and compute operating accruals from 1988 and onward as:

$$OA_t = \frac{NI_t - OANCF_t}{AT_{t-1}},$$

where NI is net income and OANCF corresponds to net cash flow from operations. All items are from Compustat data.

**Percent total accruals.** Hafzalla et al. (2011) suggest measuring percent total accruals (PTA) from Compustat data as total accruals (TA) divided by the absolute value of net income (NI). Before 1988 we follow Hou et al. (2020) and define PTA as:

$$PTA_t = (\Delta(ACT_t - CHE_t - LCT_t + DLC_t) + \Delta(AT_t - ACT_t - IVAO_t - LT_t + LCT_t + DLTT_t) + \Delta(IVST_t + IVAO_t - DLTT_t - DLC_t - PSTK_t)) / |NI_t|,$$

where ACT is current assets, LCT current liabilities, DLC short-term debt, AT total assets, IVAO investments and advances, LT total liabilities, DLTT long-term debt, IVST short-term investments, PSTK preferred stock, and NI net income.  $\Delta$  refers to the change from fiscal year  $t$  to fiscal year  $t-1$ . Moreover, missing values of IVAO, DLTT, DLC, IVST, and PSTK are set to zero. From 1988 and, thereafter, we follow Hribar and Collins (2002) and measure PTA from Compustat data as

$$PTA_t = \frac{NI_t - OANCF_t - IVNCF_t - FINCF_t + SSTK_t - PRSTKC_t - DV_t}{|NI_t|},$$

where NI corresponds to net income, OANCF to total operating cash flows, IVNCF to total investing cash flows, FINCF to total financing cash flows, SSTK to the sale of stocks, PRSTKC to stock repurchases, and DV to dividends. Moreover, we set missing value of SSTK and DV to zero.

## I.4 Momentum

**Cumulative abnormal returns around earnings' announcements.** We follow Chan et al. (1996) and estimate abnormal returns around quarterly earnings' announcements in month  $t$  as

the difference between the individual stock return  $r_{i,d}$  and the market index  $r_{m,d}$  on day  $d$ . We cumulate these abnormal returns around the following 4-day event window including two days before the quarterly earnings announcement, the day of the announcement, and one day after:

$$ABR_{i,t} = \sum_{d=-2}^{d=1} (r_{i,d} - r_{m,d}).$$

The quarterly earnings announcement date corresponds to Compustat item RDQ and has to be after the fiscal quarter end date to exclude potential recording errors. Data starts in January 1972 because the earnings announcement date RDQ is only available from 1972 onwards.

**Return momentum.** We compute return momentum (MOM) for each stock in each month as the cumulative return from month  $t - 12$  to month  $t - 2$  skipping the most recent month as in Fama and French (1996).

**Residual momentum.** As in Blitz et al. (2011), we define the 11-month residual momentum (RMOM) in each month and for each stock as cumulative residual returns from month  $t - 2$  to month  $t - 12$ , scaled by the standard deviation of residual returns over the same time horizon. Residual returns are obtained in each month from regressing monthly excess stock returns from month  $t - 1$  to month  $t - 36$  on the Fama and French (1993) three-factor model. Throughout these rolling regressions, we always require 36 monthly returns.

**Revenue surprise.** Similar to Jegadeesh and Livnat (2006), we construct revenues per share from Compustat quarterly data for each stock  $i$  in each quarter  $q$  as:

$$Revenues\ per\ share_q = \frac{SALEQ_q}{CSHPRQ_q \cdot AJEXQ_q},$$

where SALEQ corresponds to quarterly revenues, CHSPRQ to the correction factor for quarterly shares outstanding, and AJEXQ to quarterly shares outstanding. Revenue surprises (RS) correspond then to the change in revenues per share over the last four quarters scaled by the standard deviation of the change in revenues per share over the last eight quarters. We require at least six quarterly observations for this rolling standard deviation. Lastly, the earnings announcement date has to be after the fiscal quarter end date. Data starts in January 1972 because the earnings announcement date RDQ is only available from 1972 onwards.

**Standardized unexpected earnings.** As in Foster et al. (1984), we calculate unexpected earnings from quarterly Compustat data for each stock in each quarter  $q$  as the change in split-adjusted earnings per share from its value four quarters ago:

$$Unexpected\ earnings\ per\ share_q = \frac{EPSPXQ_q}{AJEXQ_q} - \frac{EPSPXQ_{q-4}}{AJEXQ_{q-4}},$$

where EPSPXQ are quarterly earnings per share and AJEXQ denotes the number of shares outstanding in each quarter. Then, standardized unexpected earnings (SUE) are defined as unexpected earnings per share divided by the standard deviation of unexpected earnings per share over the previous eight quarters. We require at least six quarterly observations for this rolling standard deviation. Moreover, the earnings announcement date has to be before the fiscal quarter end date. Data starts in January 1972 because the earnings announcement date RDQ is only available from 1972 onwards.

**Tax expense surprise.** We follow Thomas and Zhang (2011), and calculate tax expense surprises (TES) for each stock in each quarter  $q$  as the change in tax expenses per share over the last four quarters scaled by assets per share from four quarters ago ( $q - 4$ ):

$$TES_q = \frac{\frac{TXTQ_q}{CSHPRQ_q \cdot AJEXQ_q} - \frac{TXTQ_{q-4}}{CSHPRQ_{q-4} \cdot AJEXQ_{q-4}}}{\frac{ATQ_q}{CSHPRQ_q \cdot AJEXQ_q}},$$

where TXTQ represents quarterly tax expenses, ATQ quarterly total assets, AJEXQ quarterly shares outstanding, and CSHPRQ the factor to adjust quarterly shares outstanding. We exclude firms that do not pay taxes from our sample and require the earnings announcement date to be after the fiscal quarter end date. We follow Hou et al. (2020) and start our calculation in January 1976 to ensure data availability of this measure.

**52-week high.** We define the 52-week high (52W), similar to George and Hwang (2004), for each stock in each month  $t$  as the daily split-adjusted stock price at the end of each month scaled by the highest daily split-adjusted stock price over the previous 12 months.

## I.5 Profitability

**Asset turnover.** We follow Soliman (2008) and compute asset turnover (ATO) from Compustat data as sales (SALE) divided by net operating assets from the previous fiscal year:

$$ATO_t = \frac{SALE_t}{(AT_{t-1} - CHE_{t-1} - IVAO_{t-1}) - (AT_{t-1} - DLC_{t-1} - DLTT_{t-1} - MIB_{t-1} - PSTK_{t-1} - CEQ_{t-1})},$$

where Compustat item AT are total assets, item CHE are cash and short-term investments, and IVAO are other investments and advances. Moreover, item DLC represents debt in current liabilities, DLTT long-term debt, MIB minority interests, PSTK preferred stocks, and CEQ common equity. We follow Hou et al. (2020) and replace missing values of IVAO, DLC, DLTT, MIB, and PSTK with zero. Similar to Hou et al. (2020), we exclude observations with negative net operating assets.

**Book leverage.** Similar to Fama and French (1992), we compute the book leverage (BL) of each firm in each fiscal year by the ratio of total assets (Compustat item AT) and book equity. The definition of book equity follows from Davis et al. (2000) and is disclosed below when describing the book-to-market ratio.

**Cash-based operating profitability.** The definition of cash-based operating profitability (CBOP) closely follows Ball et al. (2016) and is based on Compustat data:

$$CBOP_t = \frac{REVT_t - COGS_t - XSGA_t + XRD_t - \Delta RECT_t - \Delta INVT_t - \Delta XPP_t + \Delta DRC_t + \Delta DRLT_t + \Delta AP_t + \Delta XACC_t}{AT_t},$$

where REVT is total revenue, COGS are cost of goods sold, XSGA are selling, general and administrative expenses, and XRD are R&D expenses. Moreover,  $\Delta RECT_t$  is the change in accounts receivable,  $\Delta INVT_t$  the change in inventory,  $\Delta XPP_t$  is the change in prepaid expenses,  $\Delta DRC_t + \Delta DRLT_t$  the change in deferred revenues,  $\Delta AP_t$  the change in trade accounts payable and  $\Delta XACC_t$  is the change in accrued expenses. We follow Hou et al. (2020) and set missing values of XRD and all missing changes to zero.

**Capital turnover.** We measure capital turnover (CTO) from Compustat data as sales (SALE) divided by total assets (AT) from the previous fiscal year (Haugen and Baker (1996)).

**Gross profits to assets.** We follow Novy-Marx (2013) and obtain gross profits to assets (GPA) from Compustat data as total revenues (REVT) minus cost of goods sold (COGS), scaled by current total assets (AT).

**Ohlson's O-score.** Ohlson (1980) suggests evaluating the financial stability of a firm with the following linear relation:

$$O_t = -1.32 - 0.407 \cdot \log(AT_t) + 6.03 \cdot \frac{DLC_t + DLTT_t}{AT_t} - 1.43 \cdot \frac{ACT_t - LCT_t}{AT_t} + 0.076 \cdot \frac{LCT_t}{AT_t} - 1.72 \cdot \mathbb{1}_{LT_t > AT_t} - 2.37 \cdot \frac{NI_t}{AT_t} \\ - 1.83 \cdot \frac{PI_t + DP_t}{LT_t} + 0.285 \cdot \mathbb{1}_{NI_t < 0 \text{ \& } NI_{t-1} < 0} - 0.521 \cdot \frac{NI_t - NI_{t-1}}{|NI_t| + |NI_{t-1}|}.$$

All data items are obtained from Compustat: AT corresponds to total assets, DLC to short-term debt, DLTT to long-term debt, ACT to current assets, LCT to current liabilities, LT to total liabilities, PI to pretax income, DP to depreciation and amortization, and NI to net income. We follow Hou et al. (2020)

and winsorize all variables except for dummy variables at the 1% and 99 % quantile of their respective distribution.

**Operating profits to book equity.** We closely follow Fama and French (2015) and compute operating profits to book equity for each firm in each fiscal year  $t$  from Compustat annual data:

$$OPE_t = \frac{REVT_t - COGS_t - XSGA_t - XINT_t}{BE_t},$$

where REVT corresponds to total revenues, COGS to cost of goods sold, XSGA to selling, general and administrative expenses XINT to interest expenses, and BE to book equity. The definition of book equity follows the disclosed definition for the variable book-to-market (below). Moreover, missing values in COGS, XSGA, and XINT are set to zero.

**Return on assets.** We obtain data on return on assets (ROA) for each stock in each fiscal quarter  $q$  from Compustat quarterly data and closely follow Balakrishnan et al. (2010):

$$ROA_q = \frac{IBQ_q}{ATQ_{q-1}},$$

where IBQ corresponds to quarterly income before extraordinary items, and ATQ represents quarterly total assets. Moreover, the earnings announcement date of each record has to be after the fiscal quarter end date to ensure consistent recording. Data starts in January 1972 because the earnings announcement date RDQ is only available from 1972 onwards.

**Return on equity.** Hou et al. (2014) define return on equity (ROE) for each firm in each fiscal quarter as:

$$ROE_q = \frac{IBQ_q}{BEQ_{q-1}},$$

where IBQ corresponds to quarterly income before extraordinary items and BEQ to quarterly book equity. Quarterly book equity (BEQ) is computed as the book equity of shareholders plus balance sheet deferred taxes and investment tax credit minus the book value of preferred stock. Depending on data availability, we measure shareholders' equity by SEQQ, or the sum of common equity (CEQQ) and the par value of preferred stock (PSTKQ), or if all previous items are unavailable by total assets (ATQ) minus total liabilities (LTQ). The book value of preferred stocks corresponds to PSTKRQ, to PSTKQ if PSTKRQ is unavailable or to zero if both are unavailable. Balance sheet deferred taxes and investment tax credit is TXDITCQ, TXDBQ if TXDITCQ is missing or zero if both are missing. Data starts in January 1972 because the earnings announcement date RDQ is only available from 1972 onwards.

**Taxable income to book income.** We closely follow Green et al. (2013) and compute taxable income to book income (TBI) for each firm in each fiscal year  $t$  from Compustat annual data as:

$$TBI_t = \frac{PI_t}{NI_t},$$

where PI is pretax income and NI is net income. Moreover, we require positive pretax and net income.

**Altman's Z-score.** We measure the Altman (1968) Z-score for each firm in each fiscal year from Compustat annual data by the following definition:

$$Z_t = 1.2 \cdot \frac{ACT_t - LCT_t}{AT_t} + 1.4 \cdot \frac{RE_t}{AT_t} + 3.3 \cdot \frac{OIADP_t}{AT_t} + 0.6 \cdot \frac{ME_t}{LT_t} + \frac{SALE_t}{AT_t},$$

where ACT is current assets, LCT current liabilities, AT total assets, RE retained earnings, OIADP earnings before interest and taxes, ME market equity from the end of the fiscal year (from CRSP), LT total liabilities, and SALE corresponds to sales. Lastly, we winsorize the distributions of all five sub-variables of the Z-score at the 1% and 99% quantile in each fiscal year.



## I.6 Size

**Size.** We follow Fama and French (1992) and compute the size of each stock (ME) in each month as the natural logarithm of the market equity. We obtain market equity data from CRSP by multiplying the shares outstanding (SHROUT) with the corresponding share price (PRC).

## I.7 Trading frictions

**Amihud illiquidity measure.** Amihud (2002) proposes to measure the illiquidity of each firm on each day  $d$  from daily CRSP data as the absolute daily return scaled by the daily dollar trading volume:

$$return\ to\ volume_d = \frac{|RET_d|}{PRC_d * VOL_d},$$

where RET is the daily return, PRC is the daily price, and VOL is the daily volume of stocks traded. The Amihud illiquidity measure (AMI) for each firm in each month  $t$  corresponds to the average return to volume estimate over the last six months. We require at least 50 observations for this average and adjust the trading volume of NASDAQ stocks according to Gao and Ritter (2010).

**Beta relative to the market.** We compute the market beta (BETA) for each stock in each month  $t$  from monthly CRSP data and similar as in Fama and MacBeth (1973). Specifically, we run the following time series regression over the previous five years:

$$r_t^e = \alpha + \beta_1 \cdot (MKT_t - R_t^f) + u_t.$$

Moreover, we require at least 24 monthly observations for the regression above. The market beta for each firm in each month  $t$  corresponds to the regression coefficient  $\beta_1$ . Data on the market factor  $MKT_t$  is obtained from Kenneth French's website.

**Frazzini and Pedersen beta.** Frazzini and Pedersen (2014) suggest measuring the beta (BFP) for each stock  $i$  and each month  $t$  from daily CRSP data as:

$$BFP_{i,t} = \frac{\hat{\rho} \cdot \hat{\sigma}_i}{\hat{\sigma}_m},$$

where  $\hat{\sigma}_i$  corresponds to the standard deviation of each stock  $i$  measured as the standard deviation of daily logarithmic returns over the previous 750 days. Moreover,  $\hat{\sigma}_m$  is the standard deviation of the market and is obtained as the standard deviation of daily logarithmic returns over the previous 750 days. Throughout the calculations of these standard deviations for each month  $t$ , we require at least 120 daily observations. Lastly,  $\hat{\rho}$  is the return correlation between the market  $m$  and stock  $i$ . We estimate this return correlation for each month  $t$  over the last 750 daily returns. When estimating the return correlation, we use overlapping 3-day logarithmic returns for each stock  $i$  on each day  $d$ :  $r_{i,d} = \sum_{k=-2}^0 \ln(1 + r_{i,d+k})$  instead of one-day raw returns.

**Dollar trading volume.** We follow Brennan et al. (1998) and compute dollar trading volume (DTV) from daily CRSP data as the average dollar trading volume from month  $t - 1$  to month  $t - 6$ . We require at least 50 days of observations when computing this average. Dollar trading volume is defined as share price (PRC) multiplied by the number of shares traded on each day (VOL). Moreover, we adjust dollar trading volume from NASDAQ according to Gao and Ritter (2010).

**Idiosyncratic skewness relative to the Fama and French (1993) model.** We regress the daily excess returns of each stock on the Fama and French (1993) factor model:

$$r_t^e = \alpha + \beta_1 \cdot (MKT_t - R_t^f) + \beta_2 \cdot SMB_t + \beta_3 \cdot HML_t + u_t.$$

Throughout these regressions, we require at least 15 daily observations for each month. Idiosyncratic skewness (ISKEW) relative to the Fama and French (1993) model is then measured in each month as the skewness of residuals  $u_t$  (Bali et al. (2016)).

**Idiosyncratic volatility relative to the Fama and French (1993) model.** We follow Ang et al. (2006) and compute idiosyncratic volatility relative to the Fama and French (1993) factor model (IVOL) as the volatility of residuals from the following regression:

$$r_t^e = \alpha + \beta_1 \cdot (MKT_t - R_t^f) + \beta_2 \cdot SMB_t + \beta_3 \cdot HML_t + u_t.$$

In detail, we regress in each month the excess return of each stock on the Fama and French (1993) factor model using daily returns from CRSP and Kenneth French. Moreover, we require at least 15 daily observations for each month.

**Maximum daily return.** We compute the maximum daily return (MDR) for each stock in each month  $t$  similar to Bali et al. (2011) from daily CRSP data as the maximal daily return in each month  $t$ . Moreover, we require at least 15 return observations for each month  $t$ .

**Short-term reversal.** We follow Jegadeesh (1990) and measure the short-term reversal (SREV) for each firm in each month  $t$  from monthly CRSP data as the stock return during month  $t$ . We require a valid return on month  $t$  for all stocks. All sorting variables are subsequently lagged according to decision fork “sorting variable lag”, i.e., this definition does not produce a look-ahead bias.

**Share turnover.** Datar et al. (1998) propose to measure the daily share turnover (TUR) of each stock on each day as the number of shares traded (VOL) scaled by the number of shares outstanding (SHROUT) on the same day. The variable share turnover for each firm in each month  $t$  is then the average daily share turnover over the previous six months. Throughout this calculation, we require at least 50 daily observations. Lastly, we adjust the trading volume of NASDAQ stocks according to Gao and Ritter (2010).

## I.8 Valuation

**Assets to market equity.** Similar to Fama and French (1992) we measure assets to market equity (AM) for each stock in each fiscal year by total assets (AT) divided by market equity (CRSP) from the end of the fiscal year  $t$ . We exclude observations with negative total assets.

**Book equity to market equity.** This paper follows Davis et al. (2000) and computes the book-to-market ratio (BM) as book equity from Compustat divided by market equity from CRSP. Market equity is measured at the end of each fiscal year. Book equity corresponds to the book equity of shareholders plus balance sheet deferred taxes and investment tax credit (Compustat item TXDITC or TXDB + ITCB if TXDITC is unavailable) minus the book value of preferred stock. Depending on data availability, we measure shareholders’ equity by SEQ, or the sum of common equity (CEQ) and the par value of preferred stock (PSTK), or if all previous items are unavailable by total assets (AT) minus total liabilities (LT). The book value of preferred stock corresponds in the following order either to the redemption value (PSTKRV), or the liquidation value (PSTKL), or if all previous items are unavailable to the par value (PSTK). We replace missing values of TXDITC or the book value of preferred stock with zero.

**Cash-flow to market equity.** Lakonishok et al. (1994) suggest measuring the cash-flow-to-price ratio (CFM) from Compustat data as income before extraordinary items (IB) plus depreciation (DP), both divided by market equity (CRSP) from the end of the fiscal year. We exclude all stocks with negative cash flows.

**Debt to market equity.** Following Bhandari (1988), the debt to market ratio (DM) is defined as short-term debt (Compustat item DLC) plus long-term debt (Compustat item DLTT) divided by market equity obtained from CRSP at the end of each fiscal year. We exclude stocks with missing DLC and DLTT observations.

**Enterprise book equity to market equity.** We follow Penman et al. (2007) and obtain enterprise book equity scaled by market equity (EBM) for each firm in each fiscal year  $t$  as net debt plus book equity scaled by net debt plus market equity:

$$EBM_t = \frac{(DLTT_t + DLC_t + PSTK_t + DVPA_t - TSTKP_t) - CHE_t + BE_t}{(DLTT_t + DLC_t + PSTK_t + DVPA_t - TSTKP_t) - CHE_t + ME_t},$$

where DLTT corresponds to long-term debt, DLC to current liabilities, PSTK to the value of preferred stock, DVPA to preferred dividends in arrears, TSTKP to preferred treasury stock, CHE to cash and short-term investments, and ME to the market equity from CRSP measured at the end of each fiscal year  $t$ . Lastly, book equity BE is computed as common equity (CEQ) plus TSTKP minus DVPA. Lastly, missing observations in DVPA and TSTKP are set to zero. We require that the sum of net debt and book equity as well as the sum of net debt plus market equity are positive.

**Earnings to market equity.** We follow Basu (1983) and compute the earnings-to-price ratio (EM) as income before extraordinary items (Compustat item IB) divided by market equity from CRSP. Market equity corresponds to the end of each fiscal year. We exclude firms with negative earnings.

**Net debt to market equity.** Similar to Penman et al. (2007), net debt to price (NDM) is measured from Compustat annual data for each stock in each fiscal year  $t$  in the following way:

$$NDM_t = \frac{(DLTT_t + DLC_t + PSTK_t + DVPA_t - TSTKP_t) - CHE_t}{ME_t},$$

where DLTT corresponds to long term-debt, DLC to current liabilities, PSTK to the value of preferred stock, DVPA to preferred dividends in arrears, TSTKP to preferred treasury stock, CHE to cash and short-term investments, and ME to the market equity from CRSP measured at the end of each fiscal year  $t$ . Lastly, missing observations in DVPA and TSTKP are set to zero.

**Net payout yield.** Boudoukh et al. (2007) suggest measuring the net payout yield (NPY) of each stock in the following way:

$$NPY_t = \frac{(DVC_t + PRSTKC_t + \Delta PSTKRV_t \cdot \mathbb{1}_{\Delta PSTKRV < 0}) - (SSTK_t - \Delta PSTKRV_t \cdot \mathbb{1}_{\Delta PSTKRV > 0})}{ME_t},$$

where DVC are dividends from common stock, PRSTKC is the purchase of common and preferred stock, PSTKRV is the value of the net number of preferred stocks outstanding, and SSTK reflects the sale of common and preferred stocks.  $\mathbb{1}_{\Delta PSTKRV < 0}$  is a dummy variable that has value one if the annual change in PSTKRV is negative and zero otherwise. Market equity (ME) is from CRSP and corresponds to the end of each fiscal year. Moreover, we exclude stocks with negative net payouts. Data starts in January 1972 because of sufficient data coverage for the sale of common and preferred stocks.

**Operating cash-flow to market equity.** We follow Desai et al. (2004) and compute the ratio of operating cash-flows to price (OCM) as operating cash flows from Compustat divided by the market equity at the end of each fiscal year from CRSP. Before 1988, we measure operating cash flows as funds from operations (FOPT) minus the change in working capital (item WCAP) and as net cash flows from operating activities (OANCF) thereafter. Moreover, we exclude firms with negative operating cash flows. Data starts in January 1972 because of sufficient data coverage for funds from operations.

**Long-term reversal.** We measure the long-term reversal effect (REV) suggested by De Bondt and Thaler (1985) for each stock in each month  $t$  by the cumulative returns from month  $t - 60$  to month  $t - 13$ .

**Sales to market equity** We compute the sales to price ratio (SM) as sales (Compustat item SALE) divided by the market equity at the end of each fiscal year (Barbee Jr et al., 1996). Stocks with negative sales are excluded.

## I.9 Summary statistics

In this part, we document the sorting variables' summary statistics.

**Table I.1: Summary statistics for sorting variables.**

This table provides summary statistics for the 68 sorting variables (SV) analyzed in this paper. The number of observations (Obs.) is in 1,000s and SD denotes the standard deviation. All variables are win-sorted at the 1%-level on either tail.

Group	SV	Mean	SD	Minimum	Median	Maximum	Obs.
Fin.	CDI	0.47	1.42	-3.90	0.36	5.29	222.84
Fin.	CSI	0.10	0.46	-0.79	0.00	2.19	1828.21
Fin.	DBE	0.15	0.85	-1.63	0.02	6.28	398.76
Fin.	DCOL	0.06	0.26	-0.48	0.01	2.00	344.22
Fin.	DFNL	0.06	0.36	-1.02	0.00	2.48	401.50
Fin.	NDF	0.03	0.17	-0.37	0.00	1.04	350.31
Fin.	NEF	0.08	0.32	-0.26	0.00	1.98	341.87
Fin.	NXF	0.12	0.42	-0.40	0.00	2.57	325.44
Int.	ADM	0.06	0.12	0.00	0.02	0.83	89.79
Int.	EPRD	21.26	143.84	0.01	0.51	1319.26	160.91
Int.	HR	0.04	0.30	-1.04	0.02	1.25	322.53
Int.	KZI	-10.11	36.04	-277.64	-0.86	13.65	203.06
Int.	LFE	0.15	0.61	-0.86	0.05	4.42	311.00
Int.	OL	1.16	1.28	0.02	0.87	8.59	350.36
Int.	RDM	0.07	0.12	0.00	0.03	0.73	105.18
Int.	RER	-0.00	0.17	-0.36	-0.01	0.51	114.95
Int.	TAN	0.66	0.23	0.03	0.67	1.49	380.98
Int.	WW	-0.88	0.11	-1.15	-0.87	-0.64	123.14
Inv.	ACI	0.07	0.78	-0.95	-0.09	4.18	218.72
Inv.	AG	0.27	0.99	-0.75	0.07	7.43	400.01
Inv.	DINV	0.01	0.06	-0.21	0.00	0.26	390.31
Inv.	DNOA	0.11	0.51	-1.03	0.03	3.53	396.75
Inv.	DPIA	0.09	0.27	-0.62	0.04	1.71	354.25
Inv.	DWC	0.01	0.23	-1.29	0.00	1.04	337.05
Inv.	IG	0.72	2.74	-1.00	0.06	20.15	344.72
Inv.	NOA	0.58	0.66	-3.24	0.65	3.11	397.51
Inv.	OA	-0.12	0.50	-4.03	-0.05	0.73	369.93
Inv.	PTA	0.62	4.39	-14.94	0.30	28.14	390.49
Mom.	52W	0.74	0.22	0.12	0.80	1.00	2592.95
Mom.	ABR	0.00	0.09	-0.27	0.00	0.30	735.86
Mom.	MOM	0.12	0.55	-0.82	0.05	2.58	2805.76
Mom.	RMOM	-0.04	0.32	-0.92	-0.02	0.70	2058.06
Pro.	ATO	3.08	5.00	0.00	1.79	37.21	336.89
Pro.	BL	3.90	5.24	1.01	2.08	35.03	392.50
Pro.	CBOP	-0.02	0.61	-4.62	0.09	0.60	350.34
Pro.	CTO	1.10	1.13	0.00	0.82	6.23	398.40
Pro.	GPA	0.27	0.34	-1.02	0.22	1.45	434.16
Pro.	O	-3.36	9.91	-62.86	-2.96	46.27	321.08
Pro.	OPE	0.05	0.72	-4.64	0.18	1.72	389.86
Pro.	TBI	3.93	13.81	0.00	0.32	108.33	281.14
Pro.	Z	4.50	6.82	-12.60	3.22	42.09	199.69
Siz.	ME	18.49	2.26	13.99	18.30	24.26	3106.39
Tra.	AMI	0.00	0.00	0.00	0.00	0.00	2740.54
Tra.	BETA	1.11	0.73	-0.44	1.04	3.52	2559.67
Tra.	BFP	0.94	0.58	-0.26	0.90	2.63	2728.90

*Continued on next page*

**Table I.1: Summary statistics for sorting variables.**

Tra.	DTV	0.01	0.04	0.00	0.00	0.27	2740.54
Tra.	ISKEW	0.18	0.85	-2.54	0.15	2.83	2834.52
Tra.	IVOL	0.03	0.02	0.00	0.02	0.14	2817.54
Tra.	MDR	0.08	0.07	-0.00	0.05	0.44	2836.93
Tra.	SREV	0.01	0.15	-0.39	0.00	0.59	3077.53
Tra.	TUR	0.00	0.01	0.00	0.00	0.04	2740.54
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Val.	AM	3.18	5.01	0.10	1.46	32.52	236.31
Val.	BM	0.84	0.73	0.04	0.65	4.24	227.34
Val.	CFM	0.15	0.13	0.01	0.11	0.79	177.82
Val.	DM	0.97	1.84	0.00	0.36	12.51	207.54
Val.	EBM	0.74	0.53	0.01	0.69	3.07	220.54
Val.	EM	0.09	0.07	0.00	0.07	0.39	167.67
Val.	NDM	1.13	2.09	0.00	0.46	14.49	149.42
Val.	NPY	0.05	0.05	0.00	0.03	0.35	92.48
Val.	OCM	0.18	0.23	0.00	0.11	1.53	156.41
Val.	REV	0.71	1.52	-0.93	0.34	8.27	1836.74
Val.	SM	2.40	3.83	0.00	1.08	24.52	235.34

## II Literature weights and corresponding variation in estimated premia

In this section, we present the methodology of how we analyze the published papers to compute the relative frequency of each fork’s choices.

### II.1 Methodology

Published and peer-reviewed papers that implement portfolio sorts are a natural starting point to investigate how reasonable the profession considers each of these choices shown in Figure 3. Counting the frequency of these choices in published papers allows us to estimate the corresponding frequency weights for each choice. However, this approach is imperfect because authors might only report the most significant premium estimate as shown by Hasler (2022). We try to mitigate this bias in two ways. First, we focus on published and peer-reviewed papers because the specific portfolio choices of these papers have not only been found suitable by the authors but also by the reviewers and the editor. The review process might impose, at least to a certain extent, scrutiny on the specific portfolio choices and might avoid reporting only the paths that correspond to the most significant premiums. Second, we do not only consider the portfolio choices for the baseline premium but all other choices that authors make to propose either an alternative premium estimate or to conduct a robustness check. This ensures including choices that have been suggested by reviewers or the editor.

### II.2 Sample selection

We start by analyzing the set of published papers that proposed the 68 sorting variables analyzed in this paper. This set corresponds to exactly 56 published papers that can be found in Table A.1 alongside the corresponding sorting variables. Note that we list 57 papers in Table A.1 but do not include the book by Bali et al. (2016) because it describes many different paths to estimate a premium for illustration purposes.

However, the list of papers that implement portfolio sorts is considerably longer. For instance, Hou et al. (2020) study sorting variables based on 114 papers. From these 114 papers, 109 report at least one portfolio sort or a Fama and MacBeth (1973) cross-sectional regression. Note that the following five papers did not report a portfolio sort or a Fama and MacBeth (1973) cross-sectional regression: Dichev (1998), Miller and Scholes (1982), Ohlson (1980), Kaplan and Zingales (1997), and Altman (1968). To assess whether the frequency weights based on the 56 papers from Table A.1 are robust to different samples, we extend the set of these 56 papers to 109 papers studied by Hou et al. (2020). This implies extending the set of our 56 papers by 53 papers since all sorting variables from Table A.1 are based on the list from Hou et al. (2020).

In case a paper only implements a Fama and MacBeth (1973) cross-sectional regression, we only count the frequency of all 7 sample selection choices, the sorting variable lag choice, and weighting scheme. Motivated by Hou et al. (2020), we count a Fama and MacBeth (1973) regression with ordinary least squares as equally weighting returns and a Fama and MacBeth (1973) regression with market-cap weights as value-weighted returns. Intuitively, Fama and MacBeth (1973) regressions do not require choices about rebalancing portfolios, quantiles, breakpoints, or double sorts. We do not consider frequencies for these four choices if the underlying paper only considers Fama and MacBeth (1973) cross-sectional regressions. In total, only five out of 109 papers analyzed by Hou et al. (2020) are purely based on Fama and MacBeth (1973) cross-sectional regressions.

### II.3 Fork specific measurement details

**Size exclusion.** We start by counting the number of papers that do not exclude stocks based on their market capitalization. We assume that papers that do not explicitly mention a size restriction also do not exclude stocks based on their market capitalization. Moreover, we count the number of papers that remove stocks with a market capitalization below a specific cutoff from their sample. We assess how many papers do not apply a size restriction for one premium estimate but exclude stocks below a predefined market capitalization for another premium estimate. The frequency weights for applying a size restriction or not correspond to the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that consider both of these choices.

If a paper applies a size restriction, we count the number of papers that exclude the smallest 10% or 20% of all stocks based on their market value relative to the distribution of market values of all stocks in their sample. A few papers remove even more than the 20% smallest stocks. We count these papers in favor of a 20% size filter. Moreover, several papers decide to remove either NASDAQ stocks or restrict their sample to stocks with analyst coverage, although analyst data is not necessary to estimate the premium. These requirements filter out a considerably large number of stocks based on market capitalization. We also include these papers in the number of papers with a size filter of 20%. Then, we calculate the frequency weights for a 10% or a 20% size filter as the number of papers in favor of the corresponding choice divided by the sum of all papers. Note that these frequency weights for a 10% and a 20% size filter are conditional on the frequency weight of implementing a size filter in the first place.

**Exclusion of financials.** We count the number of papers that explicitly state to exclude stocks in the financial sector with SIC codes typically between 6000 and 6999. Moreover, we count the number of papers that include financial stocks. We assume that papers that do not mention a choice for this particular fork include financial stocks in their sample. Moreover, we count a paper in favor of both choices if the respective paper includes financial stocks to report one premium but excludes them in another premium estimate. Then, we calculate the frequency weights as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

**Exclusion of utilities.** Similar to the fork “financials”, we start by counting the number of papers that explicitly state to exclude stocks in the utility sector with SIC codes typically between 4900 and 4999. Note that we do not require this specific SIC code definition as some papers might exclude utility stocks on a similar but slightly different SIC code interval. Moreover, we count the number of papers that include utility stocks. Thereby, we assume that papers that do not mention a choice for this particular fork include utility stocks in their sample. Moreover, we count a paper in favor of both choices if the respective paper includes utility stocks to report one premium but excludes them in another premium estimate. Then, we calculate the frequency weights as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

**Exclusion of negative book equity.** We start by counting the number of papers that explicitly state to exclude stocks with negative book equity values. Frequently, papers do not explicitly state to exclude negative book equity values but consistently use the natural logarithm of book equity or the book-to-market ratio. We count these papers in favor of excluding negative book equity stocks because the natural logarithm is undefined for negative values. Then, we assess how many papers explicitly state to include utility stocks. As such, we also consider papers that do mention any choice for this particular fork. Similar to the other forks, the frequency weights are defined as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

**Exclusion of negative earnings.** For this binary fork, we add up the number of papers that explicitly mention excluding stocks with negative earnings. Moreover, we count the number of papers that do not exclude stocks with negative earnings. As such, we also consider all papers that do not explicitly mention this fork and thus do not explicitly mention excluding stocks with negative earnings. Papers that exclude stocks with negative earnings to report one premium but include them in another premium estimate are counted in favor of both choices. Then, we calculate the frequency weights as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

**Stock age exclusion.** To assess the frequency weights for this fork, we start by counting the number of papers that explicitly mention to exclude stocks either based on their listing age in the Compustat or CRSP database. To those papers, we also add the papers that require more than 1 year of data to estimate the respective sorting variable but investigate the sensitivity of their results for shorter estimation periods. Then, we count the number of papers that do not apply a filter based on the listing age of stocks. As such, we also consider all papers that do not mention any specific choice for this fork. The frequency weights correspond to the number of papers in favor of the respective choice divided by

the sum of all papers. We do not observe papers that report premiums based on both choices for this fork.

**Price exclusion.** We start by counting the number of papers that do not exclude stocks based on their share price. We assume that papers that do not explicitly mention this price filter also do not exclude stocks based on their share price. Moreover, we count the number of papers that remove stocks with share prices below a specific cutoff from their sample. We count papers that do not apply a price filter for one premium estimate but exclude stocks below a predefined share price for another premium estimate in favor of both choices. The frequency weights for applying a price filter or not correspond to the number of papers in favor of the respective choice divided by the sum of all papers plus the number of times papers consider both of these choices.

If a paper applies a price filter, we count the number of papers that specify a cutoff value of 1 \$ and the number of papers that exclude stocks with share prices below 5\$. Only two papers in the extended sample based on Hou et al. (2020) have different share price filters. Specifically, these two papers exclude stocks with share prices above the median or above the first tercile share price in each year. We count these extreme observations as a 5 \$ filter. Similar to all other forks, we count the number of papers that implement a 1 \$ filter for one premium estimate but a 5 \$ filter for another premium estimate in favor of both reported choices. We calculate the frequency weights for a 1\$ and a 5\$ filter as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices. Note that these frequency weights for a 1\$ and a 5\$ filter are conditional on the frequency weight of implementing a price filter in the first place.

**Sorting variable lag.** The frequency weights for the sorting variable lag are calculated separately depending on whether the sorting variable is available on a monthly, quarterly, or yearly frequency.

For monthly updated sorting variables, we start by counting the number of papers that implement a lag of one, three, or six months between the measurement of the sorting variable and portfolio formation. Papers that implement multiple of these three choices are counted in favor of all implemented choices. A few papers implement lags of two, four, or even twelve months. Papers with lags of two or four months are counted in favor of a three-month sorting variable lag, whereas all papers with lags longer than six months are included in the number of papers with a six-month lag. The frequency weights for each choice correspond to the number of papers in favor of the respective choice divided by the sum of all papers plus the number of times papers considering multiple of these three choices.

For quarterly updated sorting variables, we count the number of papers that implement a lag of three or fewer months between the measurement of the sorting variable and portfolio formation. Moreover, we count the number of papers that keep a six-month lag between measurement and portfolio formation. We count papers in favor of both choices if the paper implements both sorting variable lags. Similar to all other forks, the frequency weights are determined by dividing the number of papers in favor of the respective choice by the sum of all papers plus the number of times papers that consider both choices.

For yearly updated sorting variables, we investigate how many papers keep a lag of three, six, or as in Fama and French (1992) of at least six months between the measurement of the sorting variable and portfolio formation. Note that a few papers consider lags of four or five months. We include papers with a four-month lag to the number of papers with a three-month lag and papers with a five-month lag to the number of papers with a six-month lag. Papers that implement multiple of these three choices are counted in favor of all implemented choices. The frequency weights for each choice correspond to the number of papers in favor of the respective choice divided by the sum of all papers plus the number of times papers considering multiple of these three choices.

**Rebalancing.** We determine the frequency weights for this fork by counting the number of papers that rebalance their portfolios each month compared to those that rebalance portfolios each year. Note that some papers decide to rebalance premium estimates each year, although data for the sorting variable is available on a monthly basis. For instance, portfolios for the size premium are often calculated at the end of June and rebalanced each year. Moreover, a few papers rebalance portfolios each month to obtain one premium estimate but also rebalance portfolios each year to assess the importance of this fork. We count these papers in favor of both choices. The frequency weights are then the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.



**Breakpoints: Quantiles (main).** We count the number of papers that calculate decile breakpoints for the main sorting variable. Moreover, we investigate how many papers decide to compute quantile breakpoints. A few papers even consider calculating tercile breakpoints. We count these papers in favor of quantile breakpoints. Moreover, we count a paper in favor of both choices if the respective paper calculates decile and quantile breakpoints for different premium estimates. The frequency weights correspond to the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

**Double sort.** We start by counting the number of papers that implement single sorts. Moreover, we investigate how many papers implement a double sort. Note that we count a paper in favor of both choices if the respective paper implements a single and double sort. We assess the frequency weight of a single and double sort as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

Conditional on observing a double sort, we investigate how many papers report a dependent or an independent double sort. Note that we count a paper in favor of both choices if the respective paper reports a dependent and independent double sort. We calculate the frequency weights for an independent and dependent double sort as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices. Note that these frequency weights for dependent and independent double sorts are conditional on the frequency weight of implementing a double sort in the first place.

**Breakpoints: Quantiles (second).** Conditional on observing a double sort, we count the number of papers that compute quintile breakpoints for the secondary sorting variable. Sometimes papers implement even decile breakpoints for the secondary sorting variable. This implies that the number of observations in each bucket is considerably low. We do not consider decile breakpoints for the secondary sorting variable to ensure sufficient observations in each bucket. Therefore, we count these papers in favor of quantile breakpoints. Subsequently, we count the number of papers that calculate median breakpoints for the secondary sorting variable. As such we also count papers that implement tercile breakpoints for the secondary sorting variable. Moreover, we count a paper in favor of both choices if the respective paper calculates quantile and median breakpoints for different premium estimates. The frequency weights correspond to the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

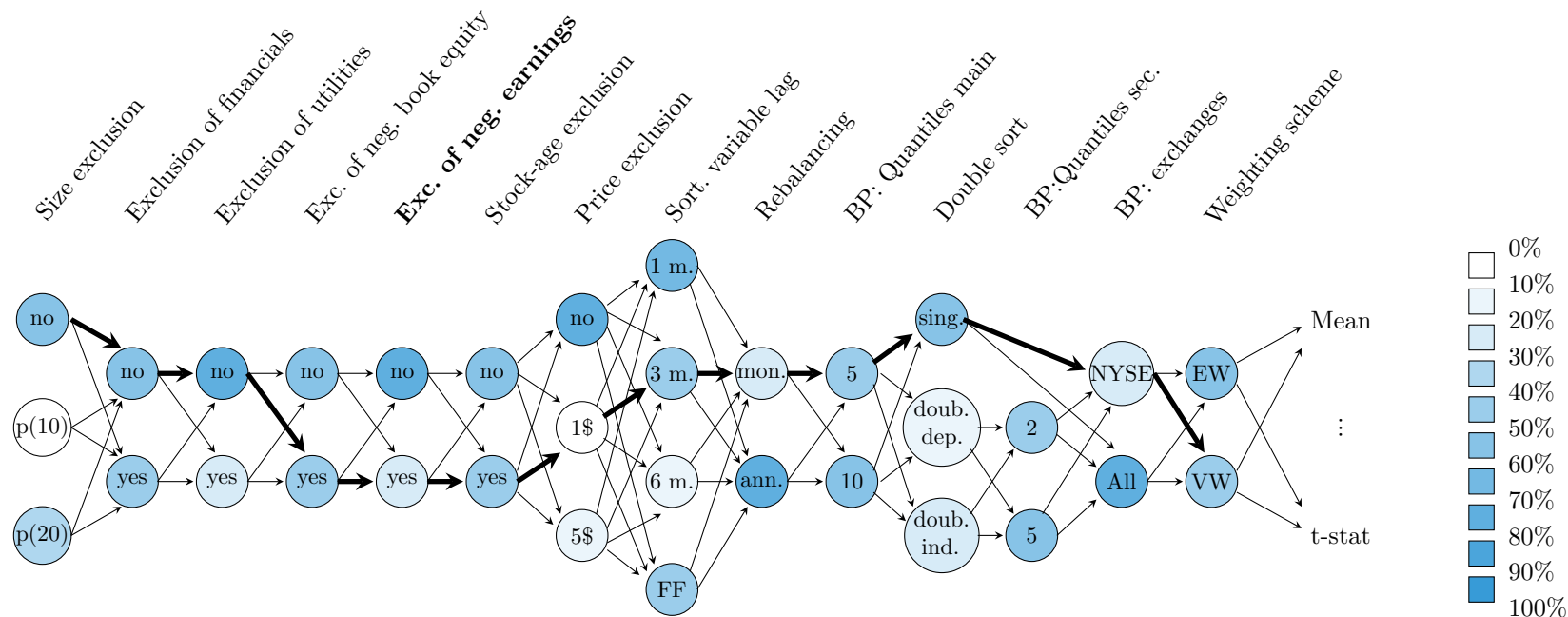
**Breakpoints: Exchanges.** We count the number of papers that determine the breakpoints for the respective portfolio sort based on NYSE stocks only. Then, we investigate how many papers calculate the breakpoints for the respective portfolio sort based on all stocks in the respective sample. Moreover, we count a paper in favor of both choices if the respective paper calculates breakpoints based on NYSE stocks to report one premium but obtains breakpoints based on all stocks for another premium estimate. Similar to all other forks, we calculate the frequency weights as the number of papers in favor of the respective choice divided by the sum of all papers plus the number of papers that report both choices.

**Weighting scheme.** To assess the frequency weights for this fork, we start by counting the number of papers that consider value-weighted portfolio returns and the number of papers that equally weight stock returns when they compute portfolio returns. Many papers published in accounting journals report size-adjusted returns as the difference between the equally weighted portfolio return and the return of a size-matched portfolio. We interpret this procedure as an attempt to control for firm size when calculating portfolio returns and count them as “value-weighted” portfolio returns. Moreover, the majority of papers consider both equal and value-weighted returns. We count such papers in favor of both choices. The frequency weights for each choice correspond then to the number of papers in favor of the respective choice divided by the sum of all papers plus the amount of times papers consider both of these choices.

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For each of the 68 sorting variables, we consider the paths of 14 decision forks for portfolio sorts until the premium is estimated. The first seven forks concern the sample construction and the ensuing seven forks belong to the portfolio construction. The color saturation indicates how often 109 papers analyzed by Hou et al. (2020) implemented each choice. We visualize a path that excludes stocks with negative earnings in Panel A and a matched pair for this path in Panel B that only differs in the choice not to exclude stocks with negative earnings. Moreover, we show how the corresponding long-minus-short return differentials enter the equation to compute mean absolute differences.

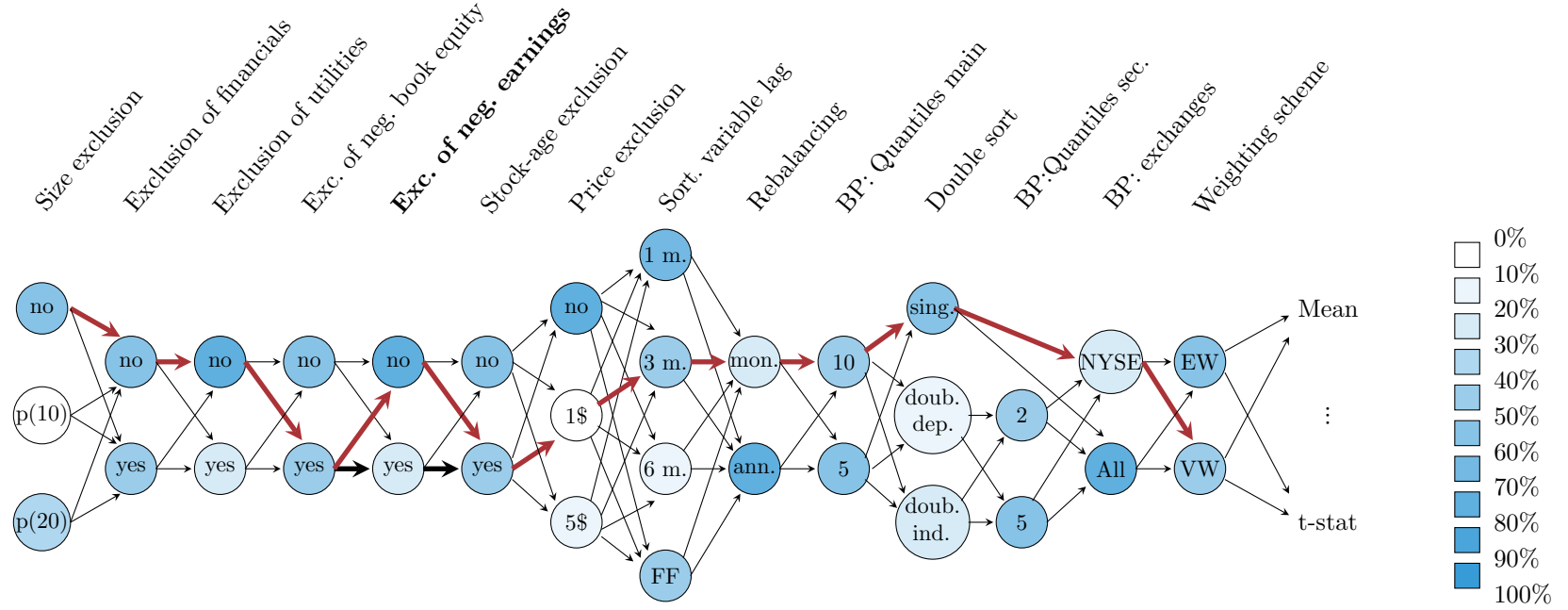
*Panel A: Long-minus-short return differentials for a path excluding stocks with negative earnings*



$$MAD_t^f = \frac{1}{|V|} \sum_{v \in V} \left( \frac{1}{|S_f^v|} \sum_{(i,j) \in S_f^v} |\mathbf{r}_{t,i}^v - r_{t,j}^v| \right). \quad (\text{III.1})$$

Panel B: Long-minus-short return differentials for a matched pair of paths that differ only in the choice of excluding stocks with negative earnings

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$$MAD_t^f = \frac{1}{|V|} \sum_{v \in V} \left( \frac{1}{|S_f^v|} \sum_{(i,j) \in S_f^v} |r_{t,i}^v - r_{t,j}^v| \right). \quad (\text{III.2})$$

## IV Methodology-induced variation in CAPM-, FF5-, and Q5-adjusted premia

Below, we show graphs similar to Figure 4 for adjusted premia. In particular, we consider intercepts relative to the CAPM, the Fama and French (2015)-model (abbreviated *FF5*), and the Hou et al. (2021)-model (abbreviated *Q5*). We show the distribution of the respective statistics in box plots to illustrate the overall spread across all sorting variables.

First, we present the distributions of the intercepts from CAPM (see Figure IV.1 and Table IX.1), FF5 (see Figure IV.2 and Table IX.2), and Q5 (see Figure IV.3 and Table IX.3). We show the distribution of the respective statistics in box plots to illustrate the overall spread across all sorting variables and comprehensive tables.

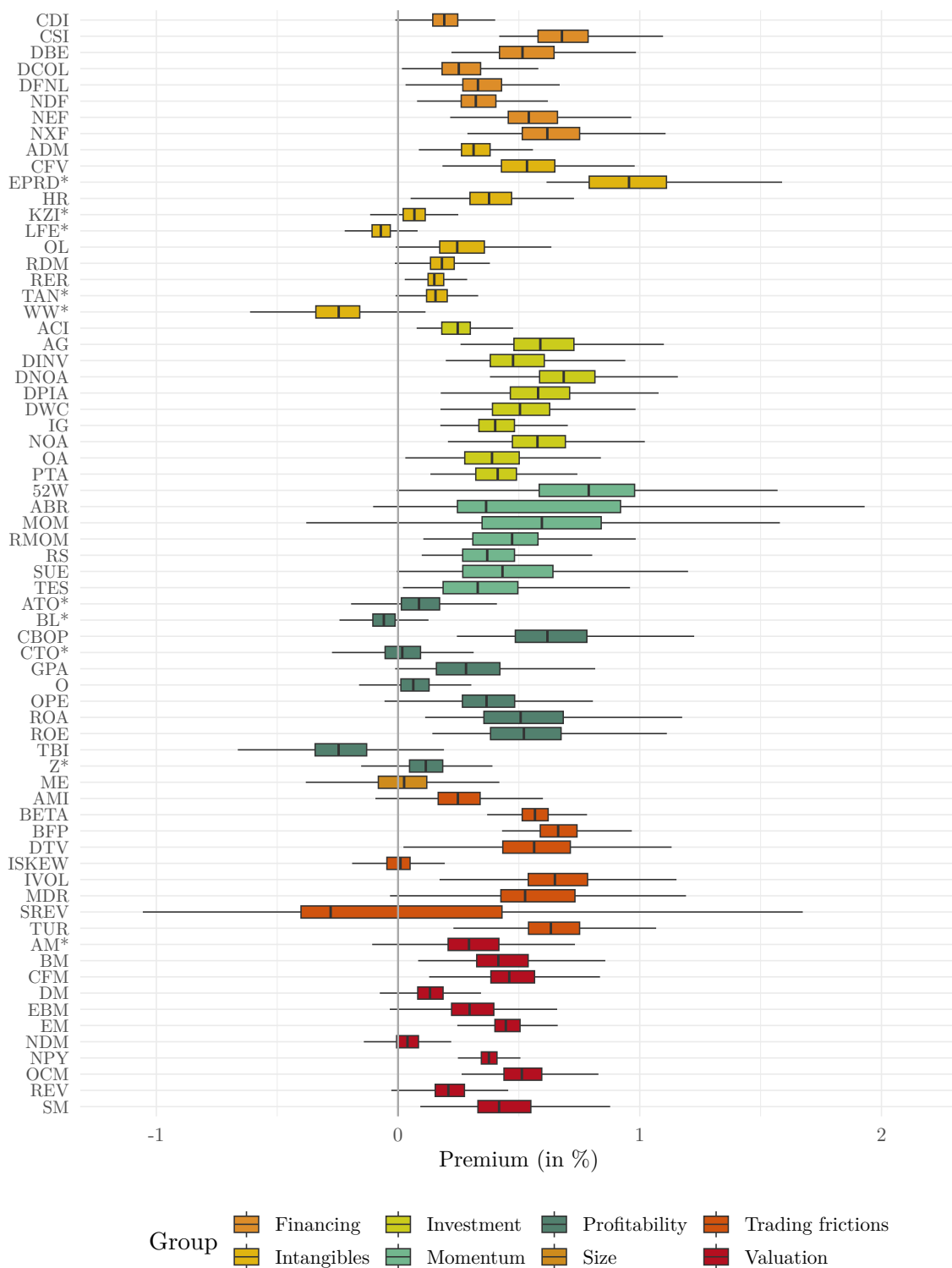
Second, we present the distributions of  $t$ -statistics of the intercepts from CAPM (see Figure IV.4), FF5 (see Figure IV.5), and Q5 (see Figure IV.6). For the unadjusted premia, we show these distributions in Figure B.2 in the Appendix of the paper. We show the distribution of the respective statistics in box plots to illustrate the overall spread across all sorting variables.

Third, we show the distribution of Newey and West (1987) standard errors for all four models. In particular, Figures IV.7 to IV.9 show standard errors of the intercept relative to the CAPM, FF5-model, and Q5-model, respectively. We show the distribution of the respective statistics in box plots to illustrate the overall spread across all sorting variables.

Finally, we show a comparison between asset pricing model's explanatory power in Table IV.4.

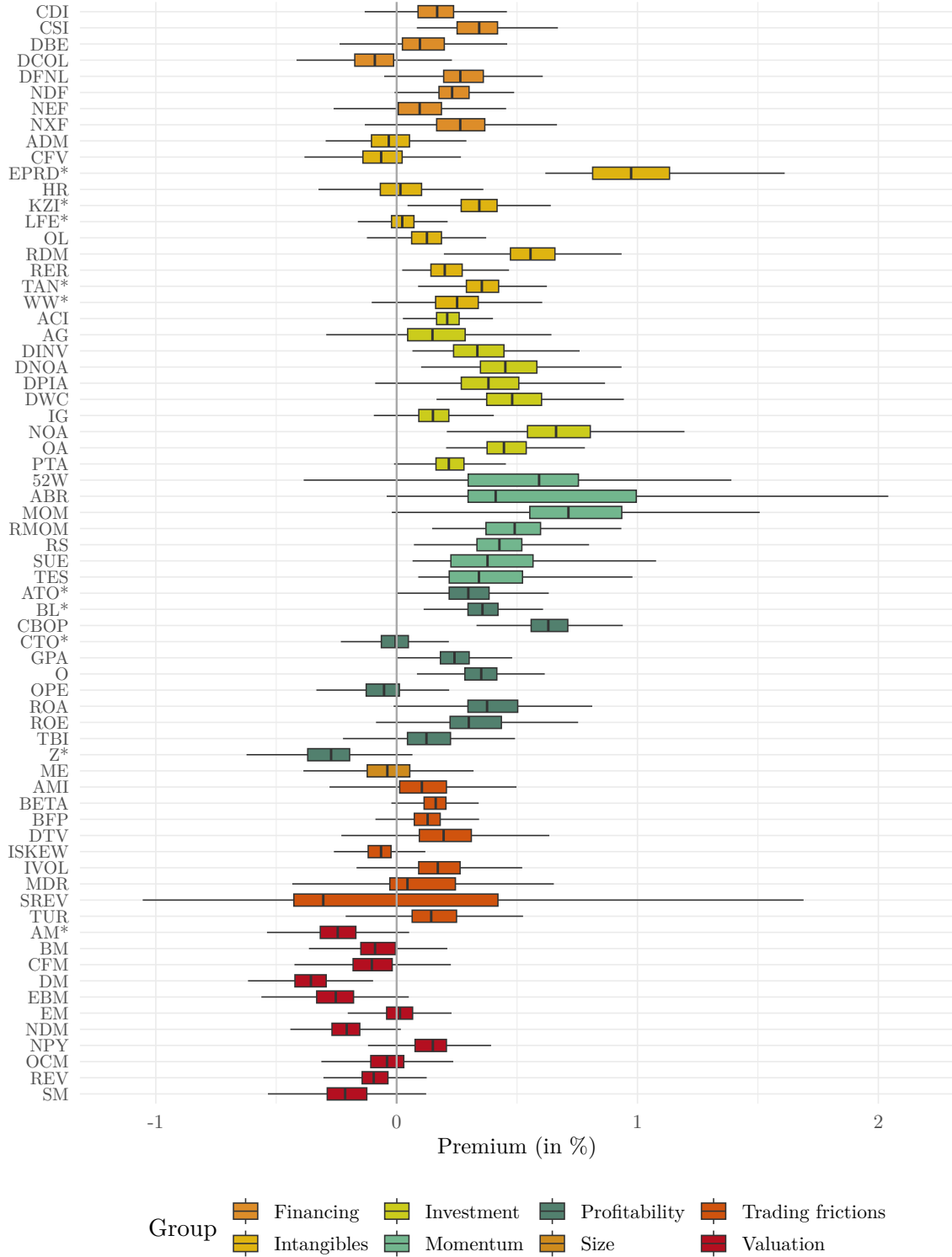
**Figure IV.1: CAPM alphas: Methodology-induced variation across sorting variables.**

This figure shows the estimated average premia (in %) adjusted for the CAPM in box plots for all sorting variables across all paths. The boxes cover the interquartile range and thus correspond to the definition of non-standard errors from Equation (2). Moreover, the lines at the ends of each box indicate the maximum and minimum premium of each distribution. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.



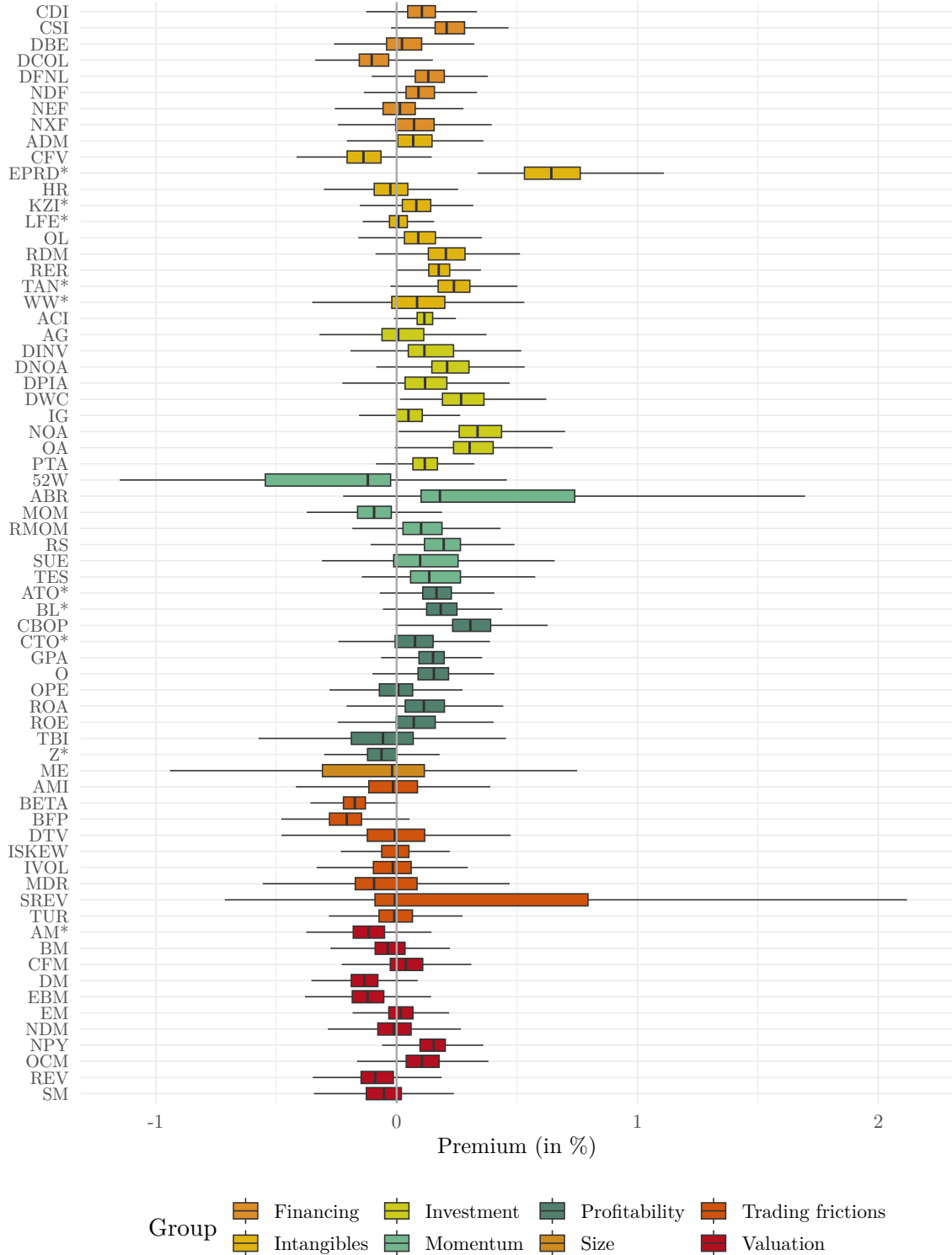
**Figure IV.2: FF5 alphas: Methodology-induced variation across sorting variables.**

This figure shows the estimated average premia (in %) adjusted for the Fama and French (2015)-model in box plots for all sorting variables across all paths. The boxes cover the interquartile range and thus correspond to the definition of non-standard errors from Equation (2). Moreover, the lines at the ends of each box indicate the maximum and minimum premium of each distribution. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.



**Figure IV.3: Q5 alphas: Methodology-induced variation across sorting variables.**

This figure shows the estimated average premia (in %) adjusted for the Hou et al. (2021)-model in box plots for all sorting variables across all paths. The boxes cover the interquartile range and thus correspond to the definition of non-standard errors from Equation (2). Moreover, the lines at the ends of each box indicate the maximum and minimum premium of each distribution. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.



**Table IV.1: Methodology-induced variation in CAPM-adjusted premia.**

This table shows summary statistics across all paths for individual sorting variables in panels grouped by categories. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the CAPM-adjusted premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of CAPM-adjusted premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive CAPM-adjusted premia and  $t$ -statistics larger than 1.96. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

**Panel A: Financing**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
CDI	0.20	0.10	(0.01, 0.07)	1.21	0.16	5.09	0.97	0.71
CSI	0.69	0.21	(0.03, 0.03)	1.10	0.63	3.26	1.00	1.00
DBE	0.54	0.23	(0.02, 0.05)	1.16	0.74	3.11	1.00	1.00
DCOL	0.28	0.16	(0.00, 0.08)	1.19	1.17	4.80	1.00	0.70
DFNL	0.35	0.16	(0.02, 0.14)	1.47	0.79	3.38	1.00	0.98
NDF	0.34	0.14	(0.06, 0.12)	1.44	0.71	3.40	1.00	0.99
NEF	0.57	0.20	(0.02, 0.05)	1.13	1.03	4.12	1.00	0.99
NXF	0.65	0.24	(0.08, 0.08)	1.41	0.86	3.66	1.00	1.00
Mean	0.45	0.18	(0.03, 0.08)	1.26	0.76	3.85	1.00	0.92

**Panel B: Intangibles**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ADM	0.33	0.12	(0.00, 0.00)	0.53	0.91	3.81	1.00	0.41
CFV	0.55	0.22	(0.01, 0.00)	0.81	0.68	3.49	1.00	0.93
EPRD*	0.97	0.32	(0.09, 0.07)	1.37	0.43	2.40	1.00	1.00
HR	0.39	0.17	(0.01, 0.06)	1.13	0.77	4.02	1.00	0.90
KZI*	0.07	0.09	(0.00, 0.01)	0.60	0.45	5.48	0.83	0.02
LFE*	-0.07	0.08	(0.00, 0.01)	0.83	0.88	5.85	0.12	0.00
OL	0.27	0.18	(0.00, 0.01)	0.89	0.62	2.77	1.00	0.46
RDM	0.19	0.10	(0.00, 0.00)	0.49	1.39	7.27	0.99	0.03
RER	0.16	0.06	(0.00, 0.01)	0.82	1.00	3.97	1.00	0.81
TAN*	0.17	0.09	(0.00, 0.01)	0.66	0.82	5.40	0.98	0.13
WW*	-0.25	0.18	(0.01, 0.02)	0.77	-0.26	5.42	0.05	0.00
Mean	0.25	0.15	(0.01, 0.02)	0.81	0.70	4.54	0.82	0.43

**Panel C: Investment**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ACI	0.25	0.12	(0.03, 0.02)	0.99	0.38	2.69	1.00	0.92
AG	0.62	0.25	(0.05, 0.09)	1.39	0.89	3.76	1.00	1.00
DINV	0.51	0.22	(0.11, 0.16)	1.73	0.77	3.11	1.00	1.00
DNOA	0.72	0.23	(0.07, 0.12)	1.53	0.92	3.79	1.00	1.00
DPIA	0.60	0.25	(0.10, 0.13)	1.67	0.73	3.65	1.00	1.00
DWC	0.52	0.24	(0.16, 0.15)	1.85	0.57	3.03	1.00	1.00
IG	0.42	0.15	(0.03, 0.04)	1.13	0.82	3.82	1.00	1.00
NOA	0.59	0.22	(0.08, 0.05)	1.31	0.55	3.20	1.00	1.00
OA	0.41	0.23	(0.03, 0.15)	1.55	0.70	3.30	1.00	0.87
PTA	0.41	0.17	(0.11, 0.05)	1.27	0.11	2.42	1.00	1.00
Mean	0.50	0.21	(0.08, 0.10)	1.44	0.64	3.28	1.00	0.98

**Panel D: Momentum**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
52W	0.78	0.39	(0.13, 0.09)	1.59	0.08	2.98	1.00	0.93
ABR	0.59	0.67	(0.19, 0.37)	4.32	0.95	2.63	0.99	0.91

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**Table IV.1: Methodology-induced variation in CAPM-adjusted premia.**

MOM	0.62	0.49	(0.06, 0.13)	1.54	0.54	2.70	1.00	0.70
RMOM	0.46	0.27	(0.13, 0.03)	1.29	0.05	2.37	1.00	0.85
RS	0.40	0.21	(0.04, 0.12)	1.55	1.10	4.53	1.00	0.87
SUE	0.49	0.37	(0.19, 0.25)	2.77	1.15	4.35	1.00	0.86
TES	0.37	0.31	(0.14, 0.20)	2.33	1.13	3.92	1.00	0.77
Mean	0.53	0.39	(0.13, 0.17)	2.20	0.71	3.35	1.00	0.84

**Panel E: Profitability**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ATO*	0.10	0.16	(0.00, 0.01)	0.84	0.49	3.00	0.79	0.07
BL*	-0.06	0.09	(0.00, 0.00)	0.46	-0.04	4.17	0.20	0.00
CBOP	0.65	0.30	(0.07, 0.15)	1.73	0.82	3.62	1.00	0.99
CTO*	0.03	0.15	(0.00, 0.01)	0.78	0.62	3.67	0.56	0.01
GPA	0.31	0.26	(0.00, 0.07)	1.23	0.62	2.74	1.00	0.53
O	0.08	0.12	(0.00, 0.02)	0.67	0.70	3.57	0.80	0.07
OPE	0.38	0.22	(0.05, 0.01)	0.96	0.56	3.48	1.00	0.82
ROA	0.54	0.33	(0.11, 0.11)	1.69	0.94	4.00	1.00	0.90
ROE	0.55	0.29	(0.14, 0.11)	1.69	1.02	4.31	1.00	0.97
TBI	-0.23	0.21	(0.00, 0.04)	0.91	0.54	4.49	0.10	0.00
Z*	0.12	0.14	(0.00, 0.00)	0.65	0.61	3.63	0.88	0.02
Mean	0.23	0.21	(0.03, 0.05)	1.06	0.62	3.70	0.76	0.40

**Panel F: Size**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ME	0.03	0.20	(0.06, 0.06)	1.49	1.38	10.89	0.57	0.07

**Panel G: Trading frictions**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AMI	0.26	0.17	(0.01, 0.05)	1.06	0.79	7.32	0.94	0.43
BETA	0.57	0.11	(0.00, 0.00)	0.37	0.33	2.72	1.00	0.99
BFP	0.67	0.15	(0.00, 0.00)	0.49	0.49	2.69	1.00	1.00
DTV	0.59	0.28	(0.06, 0.04)	1.09	0.62	3.59	1.00	0.88
ISKEW	0.00	0.10	(0.12, 0.04)	1.39	-0.05	4.44	0.56	0.05
IVOL	0.68	0.25	(0.02, 0.05)	1.18	0.82	4.55	1.00	0.98
MDR	0.59	0.31	(0.01, 0.14)	1.38	1.00	3.86	1.00	0.96
SREV	-0.05	0.83	(0.07, 0.32)	3.45	1.08	3.59	0.33	0.29
TUR	0.66	0.21	(0.01, 0.03)	0.98	0.88	4.37	1.00	0.97
Mean	0.44	0.27	(0.03, 0.08)	1.27	0.66	4.13	0.87	0.73

**Panel H: Valuation**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AM*	0.32	0.21	(0.00, 0.01)	0.77	0.68	3.72	0.98	0.18
BM	0.45	0.21	(0.00, 0.04)	0.88	1.13	4.72	1.00	0.59
CFM	0.48	0.18	(0.00, 0.00)	0.67	0.53	3.07	1.00	0.80
DM	0.14	0.10	(0.00, 0.00)	0.42	0.31	3.27	0.96	0.00
EBM	0.32	0.17	(0.00, 0.02)	0.70	1.20	5.36	1.00	0.18
EM	0.46	0.10	(0.00, 0.00)	0.49	0.86	4.18	1.00	0.95
NDM	0.04	0.09	(0.00, 0.00)	0.46	0.13	3.35	0.72	0.00
NPY	0.38	0.06	(0.00, 0.00)	0.42	0.44	3.65	1.00	0.98
OCM	0.52	0.16	(0.00, 0.00)	0.58	0.35	2.72	1.00	0.96
REV	0.23	0.12	(0.00, 0.01)	0.68	1.41	7.41	0.99	0.18
SM	0.46	0.22	(0.00, 0.01)	0.82	1.06	4.07	1.00	0.55
Mean	0.34	0.15	(0.00, 0.01)	0.63	0.74	4.14	0.97	0.49

**Panel I: Overall**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
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**Table IV.1: Methodology-induced variation in CAPM-adjusted premia.**

All	0.37	0.21	(0.04, 0.06)	1.18	0.70	3.99	0.90	0.65
Orig. Sig.	0.41	0.22	(0.05, 0.07)	1.25	0.74	3.94	0.95	0.74
Orig. Insig.	0.14	0.15	(0.01, 0.01)	0.77	0.47	4.27	0.64	0.14

**Table IV.2: Methodology-induced variation in FF5-adjusted premia.**

This table shows summary statistics across all paths for individual sorting variables in panels grouped by categories. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the FF5-adjusted premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of FF5-adjusted premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive FF5-adjusted premia and  $t$ -statistics larger than 1.96. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

**Panel A: Financing**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
CDI	0.15	0.15	(0.10, 0.09)	1.76	-0.54	4.02	0.88	0.61
CSI	0.34	0.17	(0.07, 0.06)	1.29	0.43	2.91	1.00	0.97
DBE	0.12	0.17	(0.09, 0.12)	1.70	1.01	5.20	0.81	0.28
DCOL	-0.08	0.16	(0.08, 0.15)	1.99	0.82	4.77	0.22	0.08
DFNL	0.28	0.16	(0.06, 0.17)	1.76	0.56	3.37	1.00	0.88
NDF	0.24	0.12	(0.03, 0.10)	1.31	0.67	3.56	1.00	0.86
NEF	0.10	0.18	(0.08, 0.11)	1.54	0.44	3.24	0.77	0.28
NXF	0.27	0.20	(0.11, 0.14)	1.70	0.29	2.99	0.98	0.76
Mean	0.18	0.16	(0.08, 0.12)	1.63	0.46	3.76	0.83	0.59

**Panel B: Intangibles**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ADM	-0.02	0.16	(0.00, 0.01)	0.81	0.63	3.14	0.40	0.00
CFV	-0.05	0.16	(0.02, 0.04)	1.00	0.39	3.11	0.30	0.01
EPRD*	0.98	0.32	(0.13, 0.08)	1.53	0.25	2.04	1.00	1.00
HR	0.03	0.17	(0.13, 0.14)	2.03	0.68	4.49	0.55	0.17
KZI*	0.34	0.15	(0.00, 0.01)	0.83	0.17	3.07	1.00	0.78
LFE*	0.03	0.09	(0.00, 0.00)	0.83	0.60	4.17	0.63	0.01
OL	0.12	0.12	(0.01, 0.00)	0.72	-0.01	3.12	0.90	0.04
RDM	0.58	0.18	(0.00, 0.04)	0.98	1.28	5.63	1.00	0.99
RER	0.21	0.13	(0.09, 0.04)	1.32	0.54	2.79	1.00	0.90
TAN*	0.35	0.13	(0.04, 0.02)	0.94	-0.20	4.59	0.98	0.78
WW*	0.25	0.18	(0.04, 0.02)	1.13	-0.12	5.87	0.96	0.52
Mean	0.26	0.16	(0.04, 0.04)	1.10	0.38	3.82	0.79	0.47

**Panel C: Investment**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ACI	0.22	0.09	(0.01, 0.02)	0.83	0.39	2.91	1.00	0.84
AG	0.18	0.24	(0.20, 0.19)	2.50	1.03	4.76	0.84	0.50
DINV	0.36	0.21	(0.15, 0.16)	1.81	0.85	3.40	1.00	0.97
DNOA	0.48	0.23	(0.16, 0.17)	2.06	0.87	3.80	1.00	0.98
DPIA	0.39	0.24	(0.19, 0.16)	2.17	0.46	3.58	0.98	0.89
DWC	0.50	0.23	(0.18, 0.16)	1.93	0.49	2.77	1.00	1.00
IG	0.16	0.12	(0.04, 0.07)	1.33	0.53	4.12	0.95	0.55

*Continued on next page*

**Table IV.2: Methodology-induced variation in FF5-adjusted premia.**

NOA	0.68	0.26	(0.12, 0.09)	1.59	0.58	3.19	1.00	1.00
OA	0.47	0.16	(0.04, 0.12)	1.41	0.98	3.81	1.00	1.00
PTA	0.22	0.12	(0.01, 0.07)	1.12	0.33	3.22	1.00	0.80
Mean	0.37	0.19	(0.11, 0.12)	1.68	0.65	3.56	0.98	0.85
<b>Panel D: Momentum</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
52W	0.54	0.46	(0.08, 0.01)	1.25	-0.36	3.03	0.99	0.65
ABR	0.65	0.70	(0.18, 0.35)	4.11	1.00	2.69	1.00	0.95
MOM	0.75	0.38	(0.03, 0.02)	1.14	0.39	2.99	1.00	0.96
RMOM	0.49	0.23	(0.03, 0.02)	1.04	0.23	2.41	1.00	0.96
RS	0.44	0.19	(0.11, 0.11)	1.57	0.82	4.16	1.00	0.99
SUE	0.44	0.34	(0.17, 0.24)	2.75	1.34	4.75	1.00	0.88
TES	0.40	0.30	(0.06, 0.23)	2.23	1.09	3.72	1.00	0.90
Mean	0.53	0.37	(0.09, 0.14)	2.01	0.65	3.39	1.00	0.90
<b>Panel E: Profitability</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ATO*	0.30	0.17	(0.02, 0.01)	0.93	0.27	2.66	1.00	0.71
BL*	0.36	0.12	(0.01, 0.00)	0.75	0.34	2.85	1.00	0.96
CBOP	0.64	0.15	(0.02, 0.05)	1.13	0.68	3.67	1.00	1.00
CTO*	-0.01	0.11	(0.00, 0.01)	0.74	0.14	3.64	0.48	0.01
GPA	0.24	0.12	(0.00, 0.00)	0.75	0.08	2.70	1.00	0.65
O	0.35	0.13	(0.02, 0.00)	0.84	0.07	2.74	1.00	0.93
OPE	-0.06	0.14	(0.07, 0.10)	1.40	-0.36	3.33	0.29	0.03
ROA	0.41	0.21	(0.06, 0.18)	1.88	1.03	4.39	1.00	0.92
ROE	0.35	0.21	(0.02, 0.19)	1.93	1.37	4.98	1.00	0.84
TBI	0.14	0.18	(0.04, 0.04)	1.10	0.51	4.51	0.86	0.17
Z*	-0.27	0.17	(0.00, 0.04)	1.07	0.74	5.04	0.02	0.00
Mean	0.22	0.16	(0.02, 0.06)	1.14	0.44	3.68	0.79	0.57
<b>Panel F: Size</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ME	-0.01	0.18	(0.03, 0.12)	1.96	1.92	13.11	0.37	0.09
<b>Panel G: Trading frictions</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AMI	0.11	0.19	(0.04, 0.05)	1.19	0.46	6.87	0.77	0.14
BETA	0.16	0.09	(0.00, 0.00)	0.42	-0.26	3.34	0.98	0.02
BFP	0.13	0.11	(0.00, 0.01)	0.52	0.55	5.12	0.94	0.02
DTV	0.21	0.22	(0.06, 0.04)	1.02	0.69	5.38	0.91	0.26
ISKEW	-0.07	0.09	(0.08, 0.04)	1.26	0.08	3.71	0.16	0.01
IVOL	0.19	0.17	(0.03, 0.06)	1.33	0.89	6.01	0.92	0.32
MDR	0.11	0.27	(0.01, 0.22)	1.69	1.06	3.93	0.66	0.26
SREV	-0.07	0.85	(0.02, 0.32)	2.89	1.17	3.90	0.33	0.26
TUR	0.17	0.18	(0.03, 0.07)	1.26	0.77	4.53	0.88	0.20
Mean	0.10	0.24	(0.03, 0.09)	1.29	0.60	4.76	0.73	0.17
<b>Panel H: Valuation</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AM*	-0.24	0.15	(0.01, 0.06)	1.09	0.43	3.67	0.04	0.00
BM	-0.06	0.14	(0.01, 0.16)	1.65	1.30	5.35	0.24	0.08
CFM	-0.09	0.16	(0.01, 0.10)	1.26	0.51	3.52	0.21	0.03
DM	-0.36	0.13	(0.00, 0.02)	0.87	-0.29	3.15	0.00	0.00
EBM	-0.25	0.15	(0.03, 0.11)	1.45	0.67	4.68	0.05	0.01

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**Table IV.2: Methodology-induced variation in FF5-adjusted premia.**

EM	0.01	0.11	(0.01, 0.04)	1.02	0.07	4.35	0.57	0.05
NDM	-0.21	0.12	(0.00, 0.01)	0.88	-0.27	2.58	0.00	0.00
NPY	0.14	0.13	(0.04, 0.01)	1.12	-0.66	3.24	0.91	0.47
OCM	-0.04	0.14	(0.01, 0.05)	1.04	0.26	3.22	0.35	0.03
REV	-0.08	0.11	(0.00, 0.04)	0.94	1.32	8.71	0.16	0.02
SM	-0.20	0.16	(0.00, 0.08)	1.11	0.75	3.72	0.09	0.01
Mean	-0.12	0.14	(0.01, 0.06)	1.13	0.37	4.20	0.24	0.06

**Panel I: Overall**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.20	0.19	(0.05, 0.09)	1.39	0.52	4.03	0.74	0.49
Orig. Sig.	0.20	0.20	(0.06, 0.10)	1.46	0.56	4.08	0.74	0.49
Orig. Insig.	0.21	0.16	(0.03, 0.03)	0.98	0.26	3.76	0.71	0.48

**Table IV.3: Methodology-induced variation in Q5-adjusted premia.**

This table shows summary statistics across all paths for individual sorting variables in panels grouped by categories. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the Q5-adjusted premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of Q5-adjusted premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive Q5-adjusted ppemia and  $t$ -statistics larger than 1.96. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

**Panel A: Financing**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
CDI	0.10	0.11	(0.01, 0.05)	1.19	-0.37	4.71	0.87	0.29
CSI	0.22	0.12	(0.00, 0.00)	0.70	0.37	2.88	1.00	0.38
DBE	0.04	0.15	(0.02, 0.05)	1.12	0.98	6.23	0.58	0.07
DCOL	-0.08	0.12	(0.00, 0.12)	1.39	1.50	6.82	0.19	0.06
DFNL	0.14	0.12	(0.02, 0.09)	1.27	0.67	3.85	0.95	0.45
NDF	0.10	0.12	(0.01, 0.10)	1.29	0.70	3.83	0.88	0.31
NEF	0.01	0.13	(0.02, 0.01)	0.96	-0.25	4.03	0.56	0.02
NXF	0.08	0.16	(0.03, 0.08)	1.29	-0.01	3.46	0.74	0.19
Mean	0.08	0.13	(0.02, 0.06)	1.15	0.45	4.48	0.72	0.22

**Panel B: Intangibles**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ADM	0.08	0.14	(0.00, 0.01)	0.71	0.70	3.81	0.77	0.03
CFV	-0.14	0.14	(0.00, 0.00)	0.67	-0.10	3.16	0.11	0.00
EPRD*	0.65	0.23	(0.03, 0.04)	1.22	0.41	2.60	1.00	1.00
HR	-0.01	0.14	(0.05, 0.12)	1.53	0.73	4.95	0.40	0.10
KZI*	0.08	0.12	(0.00, 0.00)	0.65	0.18	3.95	0.83	0.01
LFE*	0.01	0.07	(0.00, 0.00)	0.64	0.21	3.62	0.55	0.00
OL	0.10	0.13	(0.00, 0.00)	0.66	0.48	3.31	0.86	0.02
RDM	0.23	0.15	(0.00, 0.01)	0.82	1.55	6.92	0.99	0.11
RER	0.18	0.09	(0.03, 0.01)	0.92	0.05	2.83	1.00	0.75
TAN*	0.24	0.13	(0.00, 0.01)	0.83	0.54	4.32	0.98	0.34
WW*	0.09	0.22	(0.01, 0.03)	0.98	0.12	4.66	0.71	0.08
Mean	0.14	0.14	(0.01, 0.02)	0.88	0.44	4.01	0.74	0.22

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**Table IV.3: Methodology-induced variation in Q5-adjusted premia.**

**Panel C: Investment**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ACI	0.12	0.06	(0.00, 0.01)	0.61	0.62	4.30	1.00	0.18
AG	0.05	0.17	(0.04, 0.15)	1.75	1.56	6.86	0.52	0.16
DINV	0.15	0.19	(0.04, 0.17)	1.63	0.95	4.18	0.90	0.36
DNOA	0.23	0.15	(0.03, 0.11)	1.54	1.10	5.15	0.98	0.75
DPIA	0.13	0.17	(0.12, 0.12)	1.66	0.67	4.29	0.83	0.29
DWC	0.28	0.17	(0.07, 0.09)	1.38	0.60	3.05	1.00	0.85
IG	0.06	0.11	(0.00, 0.06)	1.08	0.85	5.34	0.75	0.12
NOA	0.35	0.18	(0.04, 0.03)	1.06	0.68	3.64	1.00	0.91
OA	0.33	0.16	(0.01, 0.10)	1.27	0.89	3.88	1.00	0.87
PTA	0.12	0.10	(0.04, 0.03)	1.06	-0.12	3.84	0.93	0.33
Mean	0.18	0.15	(0.04, 0.09)	1.31	0.78	4.45	0.89	0.48

**Panel D: Momentum**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
52W	-0.26	0.52	(0.22, 0.01)	1.45	-0.80	3.20	0.18	0.00
ABR	0.42	0.64	(0.06, 0.32)	3.47	1.07	2.82	0.96	0.52
MOM	-0.10	0.14	(0.01, 0.00)	0.57	-0.92	7.71	0.20	0.00
RMOM	0.11	0.16	(0.00, 0.01)	0.79	0.46	2.91	0.83	0.06
RS	0.20	0.15	(0.01, 0.05)	1.14	0.72	4.88	0.97	0.44
SUE	0.16	0.27	(0.09, 0.22)	2.62	1.48	5.57	0.71	0.39
TES	0.19	0.21	(0.00, 0.16)	1.63	1.30	4.47	0.94	0.38
Mean	0.10	0.30	(0.05, 0.11)	1.67	0.47	4.51	0.68	0.25

**Panel E: Profitability**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ATO*	0.17	0.12	(0.00, 0.00)	0.56	0.21	2.74	0.99	0.09
BL*	0.19	0.13	(0.00, 0.00)	0.59	0.76	3.78	0.99	0.07
CBOP	0.32	0.16	(0.03, 0.04)	1.08	0.23	3.57	0.99	0.82
CTO*	0.07	0.16	(0.00, 0.00)	0.71	0.07	2.82	0.73	0.01
GPA	0.14	0.10	(0.00, 0.00)	0.58	-0.31	4.35	0.96	0.04
O	0.15	0.13	(0.02, 0.00)	0.66	-0.37	3.17	0.92	0.02
OPE	-0.01	0.14	(0.01, 0.00)	0.82	-0.98	5.01	0.52	0.00
ROA	0.12	0.16	(0.05, 0.08)	1.41	0.51	5.07	0.83	0.21
ROE	0.09	0.16	(0.05, 0.13)	1.72	0.87	5.13	0.75	0.22
TBI	-0.06	0.26	(0.02, 0.08)	1.12	0.03	4.43	0.37	0.04
Z*	-0.06	0.12	(0.00, 0.01)	0.61	0.81	5.79	0.25	0.00
Mean	0.10	0.15	(0.02, 0.03)	0.90	0.17	4.17	0.76	0.14

**Panel F: Size**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ME	-0.05	0.42	(0.19, 0.19)	2.53	1.06	7.54	0.47	0.16

**Panel G: Trading frictions**

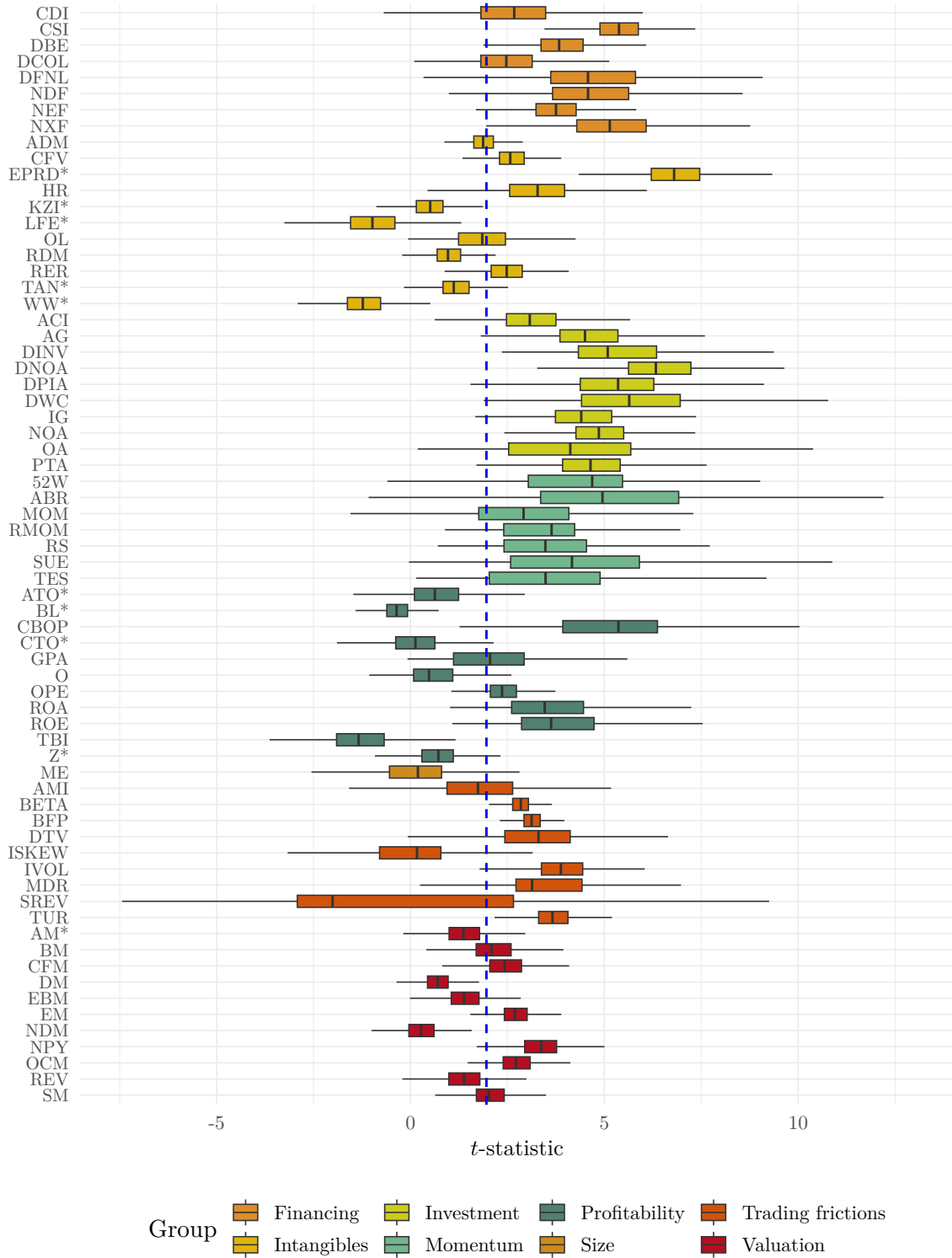
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AMI	-0.02	0.20	(0.00, 0.11)	1.13	0.42	8.34	0.46	0.10
BETA	-0.18	0.09	(0.00, 0.00)	0.38	-0.95	5.01	0.00	0.00
BFP	-0.22	0.13	(0.00, 0.00)	0.53	-0.54	4.29	0.02	0.00
DTV	-0.00	0.24	(0.00, 0.11)	1.05	0.59	6.10	0.48	0.10
ISKEW	-0.00	0.11	(0.09, 0.03)	1.26	0.19	4.19	0.51	0.03
IVOL	-0.02	0.16	(0.01, 0.02)	0.91	-0.17	6.56	0.44	0.02
MDR	-0.04	0.26	(0.00, 0.13)	1.20	0.71	3.55	0.32	0.06
SREV	0.28	0.89	(0.00, 0.33)	2.73	1.17	3.77	0.48	0.33
TUR	0.01	0.14	(0.00, 0.03)	0.76	1.44	6.57	0.46	0.03

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**Table IV.3: Methodology-induced variation in Q5-adjusted premia.**

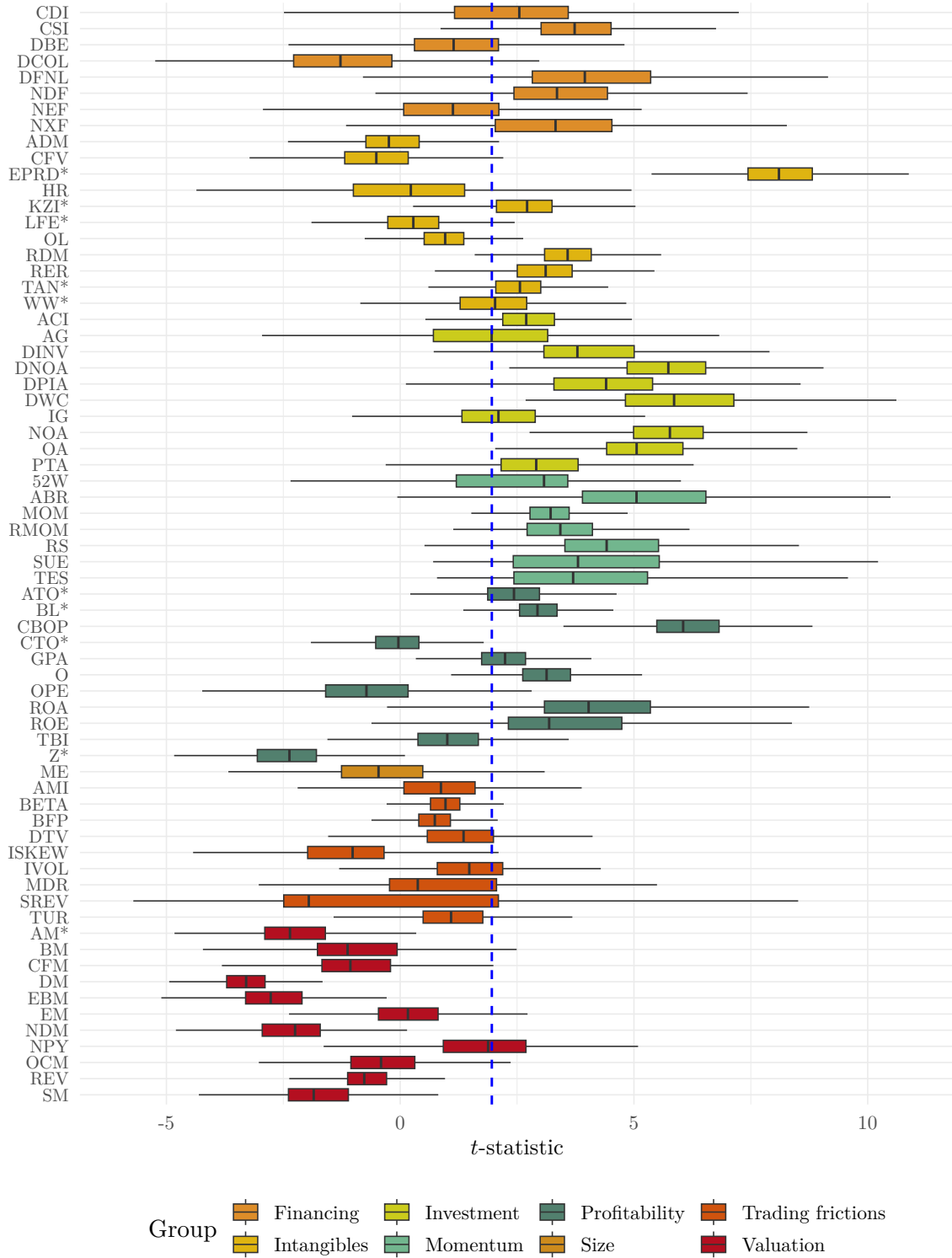
Mean	-0.02	0.25	(0.01, 0.08)	1.10	0.32	5.37	0.35	0.07
<b>Panel H: Valuation</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AM*	-0.11	0.13	(0.00, 0.01)	0.58	0.83	5.51	0.13	0.00
BM	-0.01	0.12	(0.00, 0.04)	0.84	1.75	7.79	0.35	0.03
CFM	0.05	0.13	(0.00, 0.02)	0.70	0.45	4.33	0.65	0.03
DM	-0.13	0.11	(0.00, 0.00)	0.48	-0.11	3.56	0.05	0.00
EBM	-0.11	0.13	(0.00, 0.02)	0.73	0.90	5.91	0.14	0.01
EM	0.02	0.10	(0.00, 0.00)	0.57	0.09	4.86	0.59	0.00
NDM	-0.01	0.14	(0.00, 0.01)	0.82	0.06	2.96	0.46	0.00
NPY	0.14	0.10	(0.01, 0.00)	0.81	-0.70	3.90	0.95	0.31
OCM	0.11	0.14	(0.00, 0.01)	0.64	0.54	3.50	0.87	0.05
REV	-0.06	0.13	(0.00, 0.05)	1.04	2.09	11.10	0.22	0.03
SM	-0.05	0.15	(0.00, 0.02)	0.71	0.63	4.06	0.31	0.01
Mean	-0.01	0.13	(0.00, 0.02)	0.72	0.59	5.23	0.43	0.04
<b>Panel I: Overall</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.08	0.17	(0.02, 0.06)	1.09	0.47	4.64	0.65	0.20
Orig. Sig.	0.07	0.18	(0.03, 0.06)	1.15	0.48	4.75	0.64	0.21
Orig. Insig.	0.14	0.14	(0.00, 0.01)	0.74	0.41	3.98	0.72	0.16

**Figure IV.4: Variation in CAPM-adjusted  $t$ -statistics across sorting variables.**  
This figure shows the estimated  $t$ -statistics for CAPM-adjusted returns in box plots for all sorting variables across all paths. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group. A  $t$ -value of 1.96 is indicated by the vertical dashed line.



**Figure IV.5: Variation in FF5-adjusted  $t$ -statistics across sorting variables.**

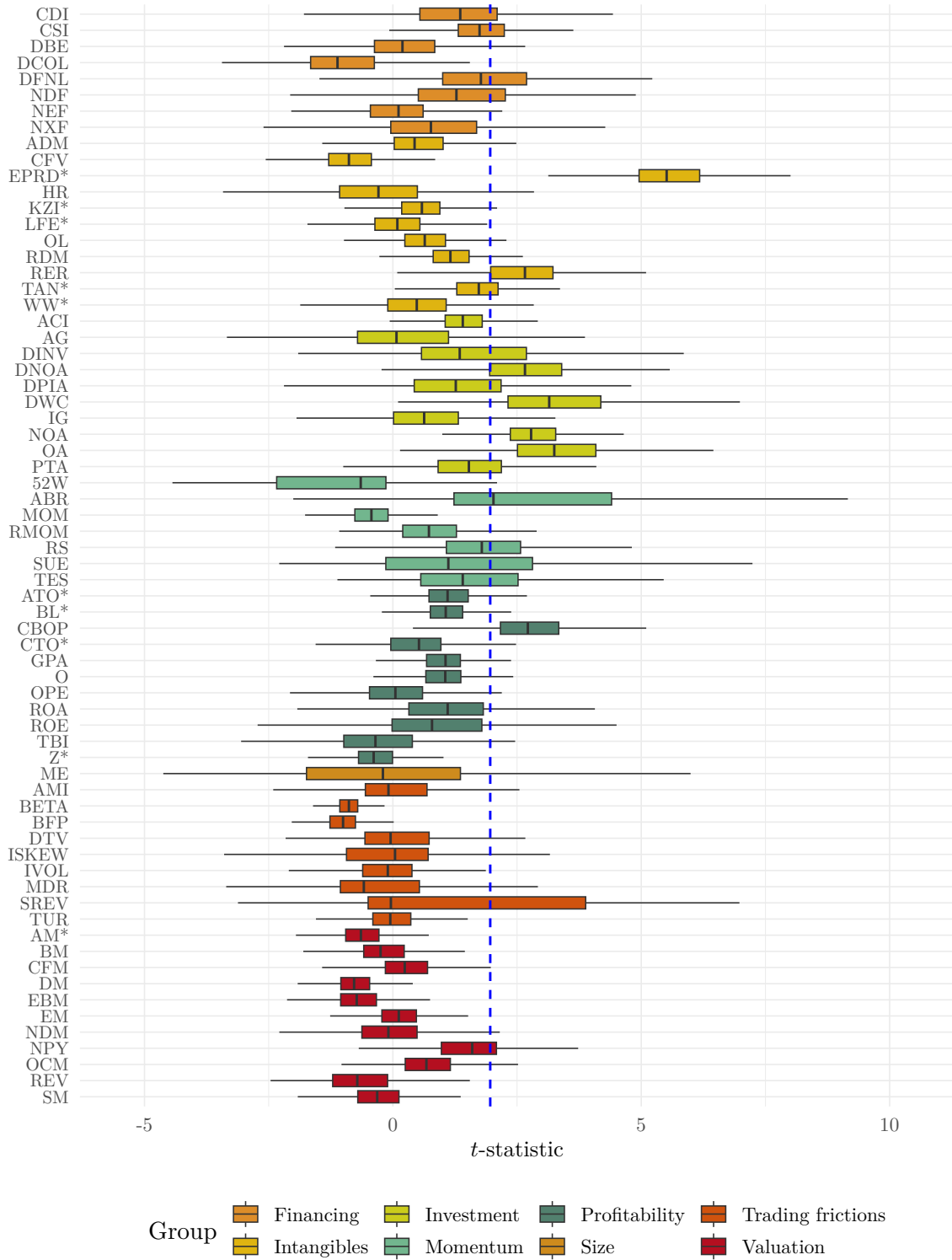
This figure shows the estimated  $t$ -statistics for Fama and French (2015)-adjusted returns in box plots for all sorting variables across all paths. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group. A  $t$ -value of 1.96 is indicated by the vertical dashed line.





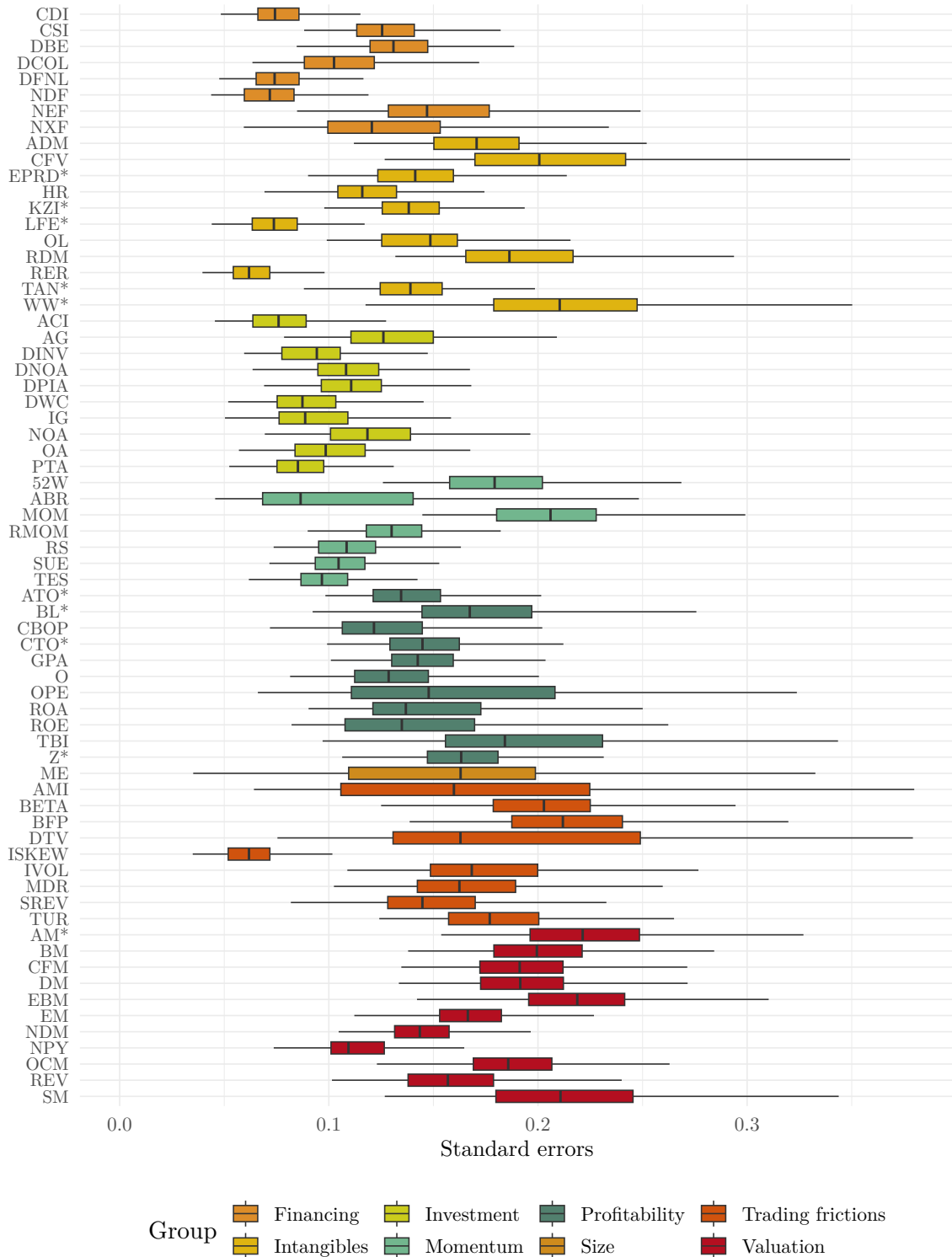
**Figure IV.6: Variation in Q5-adjusted  $t$ -statistics across sorting variables.**

This figure shows the estimated  $t$ -statistics for Hou et al. (2021)-adjusted returns in box plots for all sorting variables across all paths. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group. A  $t$ -value of 1.96 is indicated by the vertical dashed line.



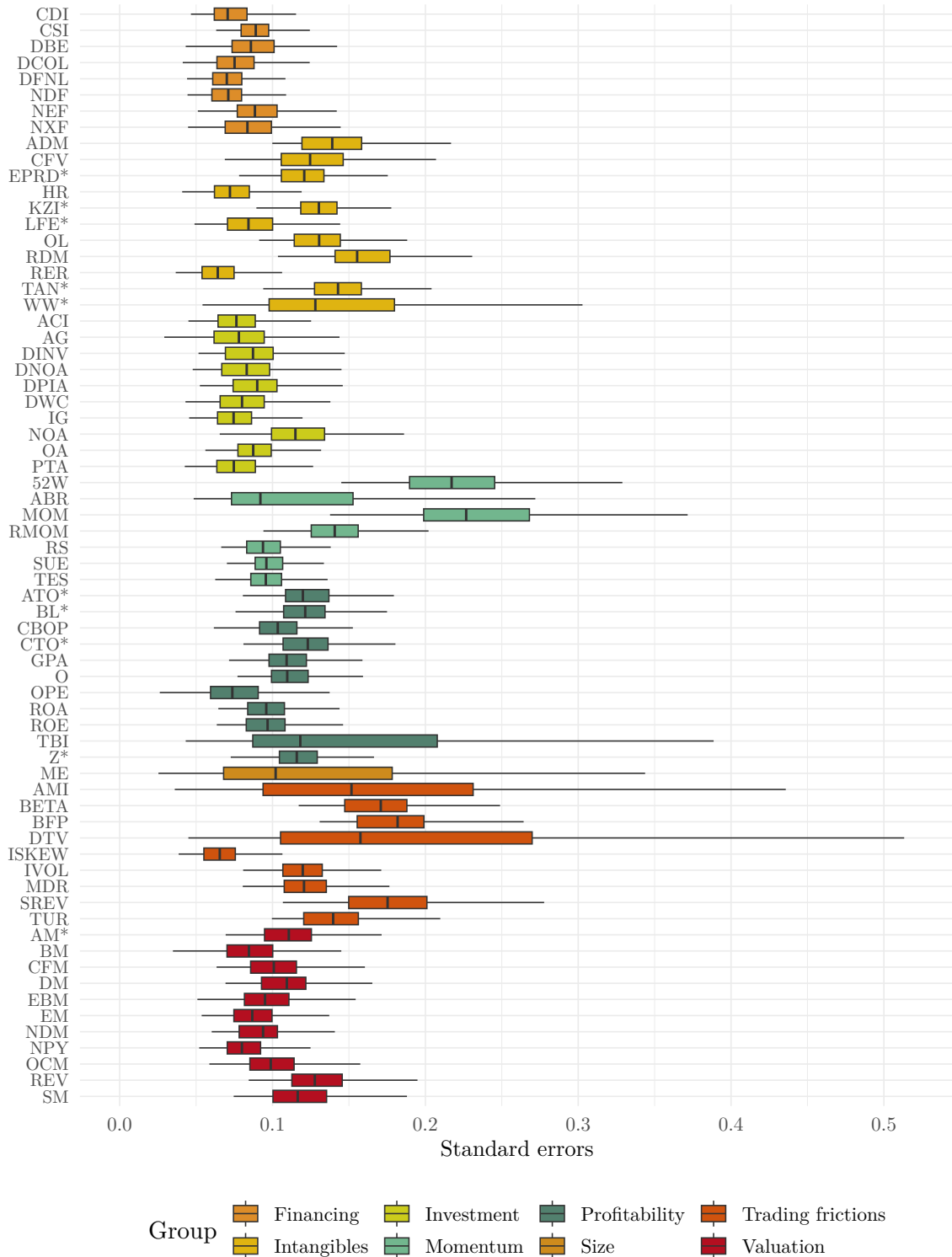
**Figure IV.7: Variation in CAPM-adjusted standard errors across sorting variables.**

This figure shows the estimated standard errors for CAPM-adjusted returns in box plots for all sorting variables across all paths. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.



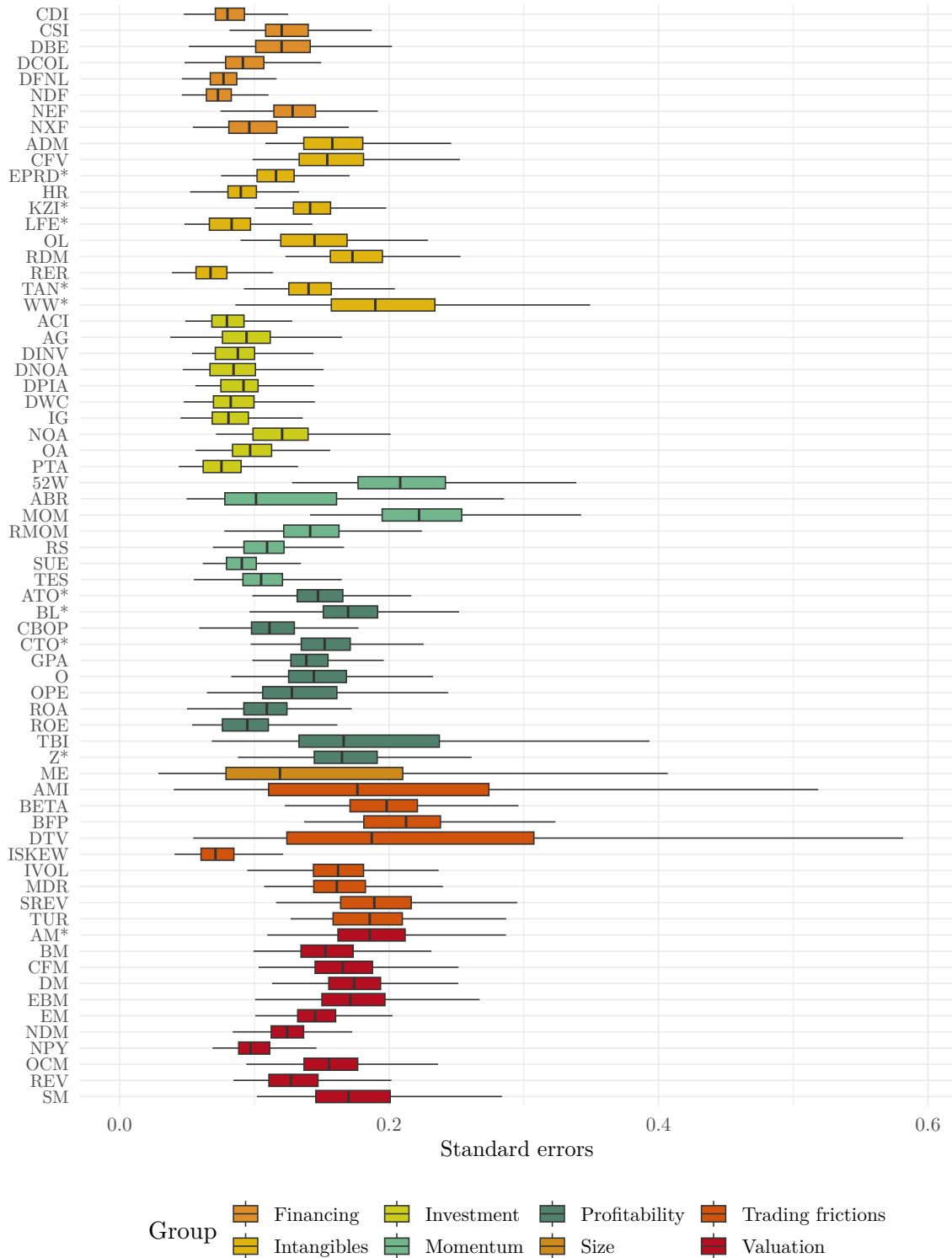
**Figure IV.8: Variation in FF5-adjusted standard errors across sorting variables.**

This figure shows the estimated standard errors for Fama and French (2015)-adjusted returns in box plots for all sorting variables across all paths. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.



**Figure IV.9: Variation in Q5-adjusted standard errors across sorting variables.**

This figure shows the estimated standard errors for Hou et al. (2021)-adjusted returns in box plots for all sorting variables across all paths. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.



**Table IV.4: Methodology-induced variation across asset-pricing models.**

This table shows non-standard errors for average premia (Raw, in %), CAPM-adjusted premia (CAPM, in %), FF5-adjusted premia (FF5, in %), Q5-adjusted premia (Q5, in %). Then, we test the similarity of the demeaned distributions of the models using Anderson-Darling tests (Scholz and Stephens, 1987). We report the average test statistics between unadjusted (“raw”) and CAPM-adjusted premia (R-C), premia of the CAPM against the FF5 (C-F) and Q5 model (C-Q), and between the FF5 and Q5 model (F-Q).

Group	Raw	CAPM	FF5	Q5	R-C	C-F	C-Q	F-Q
Financing	0.17	0.18	0.16	0.13	92	437	755	405
Intangibles	0.13	0.15	0.16	0.14	318	1091	680	385
Investment	0.19	0.21	0.19	0.15	138	365	1059	706
Momentum	0.38	0.39	0.37	0.30	97	161	1005	739
Profitability	0.17	0.21	0.16	0.15	630	1209	1376	413
Size	0.25	0.20	0.18	0.42	158	112	1243	1504
Trading frictions	0.25	0.27	0.24	0.25	257	136	265	117
Valuation	0.13	0.15	0.14	0.13	292	811	984	188
Mean	0.19	0.21	0.19	0.17	278	644	893	425

## V Methodology-induced variation based on weights from the literature

**Table V.1: Methodology-induced variation in sorting variables (56).**

This table shows summary statistics across all paths for individual sorting variables in panels grouped by categories. The paths are weighted by the relative frequency of each choice. We determine these relative frequencies for each choice by the number of past papers replicated by Hou et al. (2020) that pick the respective choice. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive premia and  $t$ -statistics larger than 1.96. The last column (Mon.) shows the relative number of monotonically increasing portfolio sorts following Patton and Timmermann (2010) and testing all possible matched paths at a 10% significance level. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

### Panel A: Financing

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
CDI	0.18	0.22	(0.01, 0.24)	1.74	0.35	2.66	0.88	0.50	0.62
CSI	0.52	0.20	(0.01, 0.00)	0.83	0.31	2.55	1.00	0.97	0.53
DBE	0.49	0.33	(0.06, 0.13)	1.60	0.81	3.10	1.00	0.89	0.41
DCOL	0.25	0.33	(0.03, 0.27)	1.97	0.74	2.78	0.88	0.46	0.05
DFNL	0.36	0.26	(0.04, 0.29)	1.92	0.57	2.40	1.00	0.93	0.52
NDF	0.37	0.19	(0.06, 0.22)	1.66	0.70	2.81	1.00	0.99	0.82
NEF	0.38	0.28	(0.03, 0.03)	1.12	0.35	2.46	0.99	0.55	0.35
NXF	0.52	0.34	(0.09, 0.08)	1.42	0.34	2.39	1.00	0.81	0.58
Mean	0.38	0.27	(0.04, 0.16)	1.53	0.52	2.64	0.97	0.76	0.48

### Panel B: Intangibles

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ADM	0.34	0.16	(0.00, 0.00)	0.62	0.47	2.68	1.00	0.41	0.40
CFV	0.35	0.18	(0.00, 0.00)	0.59	0.78	3.46	1.00	0.16	0.46
EPRD*	0.81	0.31	(0.03, 0.01)	0.98	0.32	2.18	1.00	1.00	0.93
HR	0.35	0.32	(0.07, 0.23)	1.92	0.68	2.83	0.98	0.65	0.32
KZI*	-0.01	0.10	(0.00, 0.00)	0.58	0.36	4.42	0.40	0.00	0.02
LFE*	-0.01	0.08	(0.00, 0.03)	1.10	1.51	5.83	0.30	0.01	0.00
OL	0.32	0.15	(0.00, 0.00)	0.66	0.54	2.79	1.00	0.55	0.63
RDM	0.43	0.31	(0.00, 0.00)	0.97	0.71	2.76	1.00	0.43	0.02
RER	0.17	0.06	(0.00, 0.00)	0.65	0.86	4.36	1.00	0.78	0.52
TAN*	0.19	0.27	(0.00, 0.03)	1.21	0.24	2.20	0.84	0.34	0.46
WW*	0.03	0.35	(0.07, 0.01)	1.24	-0.71	3.27	0.60	0.02	0.03
Mean	0.27	0.21	(0.02, 0.03)	0.96	0.53	3.34	0.83	0.40	0.35

### Panel C: Investment

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ACI	0.27	0.13	(0.04, 0.05)	1.02	0.54	3.00	1.00	0.85	0.65
AG	0.60	0.43	(0.12, 0.24)	2.11	0.78	2.86	1.00	0.92	0.67
DINV	0.45	0.25	(0.13, 0.19)	1.88	0.77	3.21	1.00	1.00	0.84
DNOA	0.66	0.33	(0.07, 0.22)	1.99	0.98	3.33	1.00	1.00	0.89
DPIA	0.56	0.37	(0.16, 0.23)	2.14	0.65	2.89	1.00	0.92	0.73
DWC	0.43	0.19	(0.12, 0.07)	1.39	0.42	2.98	1.00	1.00	0.69
IG	0.40	0.21	(0.07, 0.13)	1.49	0.80	3.48	1.00	0.93	0.80
NOA	0.56	0.24	(0.09, 0.06)	1.31	0.69	3.11	1.00	1.00	0.57
OA	0.32	0.14	(0.00, 0.09)	1.02	1.10	4.24	1.00	0.76	0.46
PTA	0.32	0.18	(0.10, 0.06)	1.27	0.05	2.33	1.00	0.87	0.68

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**Table V.1: Methodology-induced variation in sorting variables (56).**

Mean	0.46	0.25	(0.09, 0.13)	1.56	0.68	3.14	1.00	0.93	0.70
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<b>Panel D: Momentum</b>									
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
52W	0.10	0.41	(0.05, 0.14)	1.49	-0.48	4.23	0.65	0.18	0.48
ABR	0.99	0.71	(0.33, 0.10)	2.74	-0.31	2.13	0.99	0.95	0.73
MOM	0.72	0.43	(0.07, 0.04)	1.27	-0.01	3.24	0.98	0.79	0.70
RMOM	0.53	0.18	(0.05, 0.01)	0.94	-0.35	3.58	1.00	0.96	0.66
RS	0.41	0.31	(0.01, 0.18)	1.66	0.74	3.05	1.00	0.73	0.69
SUE	0.64	0.71	(0.18, 0.31)	3.48	0.71	2.19	1.00	0.88	0.90
TES	0.54	0.53	(0.12, 0.31)	2.78	0.68	2.11	1.00	0.92	0.73
Mean	0.56	0.47	(0.11, 0.16)	2.05	0.14	2.93	0.95	0.77	0.70

<b>Panel E: Profitability</b>									
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ATO*	0.27	0.15	(0.00, 0.01)	0.80	0.66	3.26	1.00	0.43	0.25
BL*	-0.01	0.12	(0.00, 0.00)	0.49	0.06	2.25	0.45	0.00	0.00
CBOP	0.60	0.27	(0.06, 0.10)	1.38	0.60	3.35	1.00	0.95	0.99
CTO*	0.17	0.10	(0.00, 0.00)	0.54	0.53	3.41	0.99	0.07	0.07
GPA	0.38	0.19	(0.00, 0.01)	0.86	0.23	2.64	1.00	0.76	0.75
O	0.07	0.12	(0.00, 0.00)	0.60	0.30	2.88	0.77	0.01	0.01
OPE	0.31	0.19	(0.03, 0.00)	0.79	0.10	3.01	0.99	0.41	0.64
ROA	0.58	0.40	(0.03, 0.14)	1.41	0.68	2.68	1.00	0.75	0.71
ROE	0.61	0.39	(0.04, 0.20)	1.55	0.71	2.49	1.00	0.82	0.84
TBI	0.03	0.34	(0.02, 0.10)	1.21	0.15	2.82	0.54	0.10	0.02
Z*	0.13	0.22	(0.00, 0.03)	1.00	1.05	3.71	0.75	0.11	0.00
Mean	0.28	0.22	(0.02, 0.05)	0.97	0.46	2.95	0.86	0.40	0.39

<b>Panel F: Size</b>									
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ME	0.50	0.55	(0.08, 0.26)	2.36	1.27	4.17	0.95	0.39	0.15

<b>Panel G: Trading frictions</b>									
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
AMI	0.29	0.29	(0.03, 0.15)	1.79	1.28	4.96	0.88	0.32	0.23
BETA	-0.03	0.09	(0.00, 0.00)	0.23	0.04	2.98	0.32	0.00	0.00
BFP	0.08	0.13	(0.00, 0.00)	0.34	-0.20	3.73	0.81	0.00	0.00
DTV	0.42	0.30	(0.00, 0.17)	1.56	1.35	4.25	0.99	0.46	0.33
ISKEW	0.02	0.27	(0.23, 0.25)	2.09	-0.00	2.02	0.54	0.26	0.16
IVOL	0.29	0.38	(0.01, 0.05)	1.22	0.11	2.85	0.82	0.22	0.02
MDR	0.34	0.36	(0.03, 0.06)	1.15	0.20	2.95	0.91	0.32	0.08
SREV	0.67	1.22	(0.32, 0.32)	4.78	0.54	2.61	0.75	0.60	0.30
TUR	0.29	0.38	(0.00, 0.10)	1.10	0.55	2.53	0.86	0.26	0.07
Mean	0.26	0.38	(0.07, 0.12)	1.58	0.43	3.21	0.76	0.27	0.13

<b>Panel H: Valuation</b>									
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
AM*	0.34	0.32	(0.00, 0.06)	1.01	0.82	3.07	1.00	0.30	0.14
BM	0.48	0.39	(0.00, 0.17)	1.33	0.81	2.78	1.00	0.48	0.50
CFM	0.42	0.22	(0.00, 0.01)	0.78	0.53	2.83	1.00	0.60	0.83
DM	0.16	0.13	(0.00, 0.00)	0.50	0.42	2.86	0.97	0.00	0.06
EBM	0.36	0.29	(0.00, 0.10)	1.02	0.97	3.12	1.00	0.33	0.50
EM	0.33	0.10	(0.00, 0.01)	0.53	1.09	5.76	1.00	0.60	0.73
NDM	0.13	0.14	(0.00, 0.00)	0.62	0.76	2.92	0.97	0.01	0.10
NPY	0.29	0.08	(0.00, 0.00)	0.49	0.48	3.34	1.00	0.78	0.74
OCM	0.49	0.17	(0.00, 0.00)	0.68	0.41	2.87	1.00	0.85	0.69
REV	0.36	0.33	(0.00, 0.11)	1.24	0.96	3.00	0.99	0.40	0.43

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**Table V.1: Methodology-induced variation in sorting variables (56).**

SM	0.55	0.37	(0.00, 0.02)	1.02	0.62	2.52	1.00	0.63	0.89
Mean	0.36	0.23	(0.00, 0.04)	0.84	0.71	3.19	0.99	0.45	0.51
<b>Panel I: Overall</b>									
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
All	0.36	0.28	(0.05, 0.09)	1.31	0.53	3.10	0.91	0.55	0.45
Orig. Sig.	0.39	0.30	(0.05, 0.11)	1.38	0.53	3.05	0.94	0.60	0.50
Orig. Insig.	0.19	0.20	(0.01, 0.02)	0.89	0.48	3.36	0.73	0.23	0.19

**Table V.2: Methodology-induced variation across sorting variables (CAPM, 109).**

This table shows summary statistics of CAPM alphas across all paths for individual sorting variables in panels grouped by categories. The paths are weighted by the relative frequency of each choice. We determine these relative frequencies for each choice by the number of past papers replicated by Hou et al. (2020) that pick the respective choice. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive premia and  $t$ -statistics larger than 1.96. The last column (Mon.) shows the relative number of monotonically increasing portfolio sorts following Patton and Timmermann (2010) and testing all possible matched paths at a 10% significance level. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

**Panel A: Financing**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
CDI	0.24	0.21	(0.02, 0.24)	1.79	0.39	2.84	0.95	0.67
CSI	0.76	0.21	(0.07, 0.03)	1.08	0.39	2.68	1.00	1.00
DBE	0.61	0.29	(0.07, 0.10)	1.44	0.71	3.05	1.00	1.00
DCOL	0.35	0.28	(0.02, 0.21)	1.66	0.89	3.35	1.00	0.69
DFNL	0.39	0.23	(0.03, 0.27)	1.83	0.65	2.72	1.00	0.97
NDF	0.39	0.18	(0.05, 0.21)	1.64	0.78	3.07	1.00	1.00
NEF	0.66	0.31	(0.06, 0.04)	1.22	0.42	2.44	1.00	0.97
NXF	0.74	0.34	(0.14, 0.08)	1.50	0.36	2.46	1.00	1.00
Mean	0.52	0.25	(0.06, 0.15)	1.52	0.57	2.83	0.99	0.91

**Panel B: Intangibles**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ADM	0.38	0.15	(0.00, 0.00)	0.59	0.60	3.16	1.00	0.60
CFV	0.61	0.26	(0.02, 0.00)	0.79	0.60	3.08	1.00	0.82
EPRD*	0.99	0.35	(0.05, 0.07)	1.31	0.32	2.19	1.00	1.00
HR	0.46	0.27	(0.03, 0.17)	1.55	0.82	3.26	1.00	0.79
KZI*	0.08	0.12	(0.00, 0.02)	0.70	0.53	4.08	0.81	0.05
LFE*	-0.03	0.09	(0.01, 0.04)	1.13	1.39	5.69	0.24	0.01
OL	0.27	0.17	(0.00, 0.01)	0.85	0.54	2.96	1.00	0.39
RDM	0.25	0.23	(0.00, 0.00)	0.80	0.91	3.34	0.97	0.12
RER	0.17	0.06	(0.00, 0.01)	0.66	0.75	3.90	1.00	0.75
TAN*	0.19	0.24	(0.00, 0.03)	1.11	0.28	2.43	0.92	0.31
WW*	-0.21	0.27	(0.06, 0.05)	1.29	-0.35	3.52	0.18	0.00
Mean	0.29	0.20	(0.02, 0.04)	0.98	0.58	3.42	0.83	0.44

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Table V.2: Methodology-induced variation across sorting variables (CAPM, 109).

Panel C: Investment								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ACI	0.25	0.13	(0.03, 0.04)	1.02	0.55	2.97	1.00	0.81
AG	0.71	0.37	(0.09, 0.18)	1.77	0.82	3.18	1.00	1.00
DINV	0.53	0.22	(0.11, 0.15)	1.71	0.82	3.43	1.00	1.00
DNOA	0.76	0.30	(0.05, 0.18)	1.78	1.02	3.63	1.00	1.00
DPIA	0.66	0.36	(0.15, 0.21)	2.09	0.67	3.02	1.00	0.99
DWC	0.49	0.20	(0.13, 0.08)	1.44	0.53	3.17	1.00	1.00
IG	0.47	0.20	(0.06, 0.08)	1.31	0.81	3.50	1.00	1.00
NOA	0.61	0.28	(0.12, 0.09)	1.52	0.51	2.78	1.00	1.00
OA	0.33	0.16	(0.00, 0.13)	1.10	1.23	4.68	1.00	0.71
PTA	0.41	0.20	(0.14, 0.07)	1.37	0.09	2.09	1.00	0.99
Mean	0.52	0.24	(0.09, 0.12)	1.51	0.71	3.24	1.00	0.95
Panel D: Momentum								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
52W	0.63	0.42	(0.11, 0.13)	1.72	-0.40	4.18	0.95	0.78
ABR	0.95	0.91	(0.35, 0.20)	3.33	-0.12	1.89	0.99	0.93
MOM	0.80	0.49	(0.13, 0.10)	1.68	0.08	3.09	0.98	0.83
RMOM	0.55	0.20	(0.09, 0.02)	1.14	-0.40	3.07	1.00	0.93
RS	0.44	0.32	(0.02, 0.18)	1.75	0.83	3.14	1.00	0.80
SUE	0.65	0.61	(0.19, 0.30)	3.60	0.76	2.39	1.00	0.89
TES	0.47	0.49	(0.14, 0.29)	2.88	0.71	2.23	1.00	0.77
Mean	0.64	0.49	(0.15, 0.17)	2.30	0.21	2.86	0.99	0.85
Panel E: Profitability								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ATO*	0.14	0.16	(0.01, 0.02)	0.83	0.46	3.32	0.90	0.11
BL*	-0.04	0.14	(0.00, 0.00)	0.54	-0.03	2.64	0.35	0.00
CBOP	0.70	0.35	(0.09, 0.14)	1.70	0.64	2.98	1.00	0.98
CTO*	0.06	0.14	(0.00, 0.00)	0.71	0.17	3.51	0.73	0.01
GPA	0.37	0.25	(0.03, 0.03)	1.10	0.19	2.57	1.00	0.68
O	0.12	0.15	(0.00, 0.01)	0.81	0.23	2.64	0.87	0.14
OPE	0.44	0.27	(0.10, 0.00)	0.99	0.14	2.86	0.99	0.70
ROA	0.71	0.39	(0.09, 0.14)	1.58	0.62	2.82	1.00	0.93
ROE	0.71	0.38	(0.09, 0.19)	1.64	0.67	2.76	1.00	0.97
TBI	-0.14	0.32	(0.00, 0.18)	1.35	0.70	3.06	0.24	0.04
Z*	0.20	0.16	(0.00, 0.02)	0.79	0.98	4.33	0.97	0.11
Mean	0.30	0.25	(0.04, 0.07)	1.09	0.43	3.05	0.82	0.42
Panel F: Size								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ME	0.34	0.46	(0.05, 0.25)	2.40	1.39	4.53	0.83	0.29
Panel G: Trading frictions								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AMI	0.32	0.24	(0.01, 0.16)	1.67	1.40	5.30	0.93	0.36
BETA	0.58	0.12	(0.00, 0.00)	0.34	0.22	2.48	1.00	0.97
BFP	0.70	0.17	(0.00, 0.00)	0.51	0.44	2.49	1.00	0.99
DTV	0.62	0.43	(0.04, 0.16)	1.63	0.89	3.07	1.00	0.82
ISKEW	0.02	0.22	(0.21, 0.21)	2.09	0.10	2.29	0.58	0.23
IVOL	0.73	0.41	(0.09, 0.10)	1.53	0.07	2.83	0.99	0.84
MDR	0.73	0.40	(0.09, 0.11)	1.49	0.21	2.85	1.00	0.92
SREV	0.37	1.08	(0.32, 0.35)	4.38	0.81	3.02	0.63	0.47

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**Table V.2: Methodology-induced variation across sorting variables (CAPM, 109).**

TUR	0.75	0.38	(0.03, 0.11)	1.32	0.57	2.63	1.00	0.95
Mean	0.54	0.38	(0.09, 0.13)	1.66	0.52	2.99	0.90	0.73
<b>Panel H: Valuation</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AM*	0.41	0.42	(0.00, 0.03)	1.13	0.25	2.30	0.97	0.38
BM	0.59	0.43	(0.00, 0.15)	1.35	0.69	2.67	1.00	0.67
CFM	0.53	0.22	(0.00, 0.01)	0.74	0.31	2.62	1.00	0.82
DM	0.19	0.15	(0.00, 0.00)	0.52	0.03	2.46	0.96	0.01
EBM	0.45	0.38	(0.00, 0.11)	1.13	0.77	2.89	1.00	0.40
EM	0.46	0.10	(0.00, 0.00)	0.49	1.10	5.25	1.00	0.93
NDM	0.09	0.13	(0.00, 0.00)	0.64	0.23	2.75	0.82	0.01
NPY	0.41	0.07	(0.00, 0.00)	0.45	0.42	3.55	1.00	0.95
OCM	0.59	0.16	(0.00, 0.00)	0.62	0.14	2.78	1.00	0.98
REV	0.33	0.23	(0.00, 0.10)	1.12	1.18	3.84	0.99	0.35
SM	0.59	0.40	(0.02, 0.03)	1.06	0.51	2.54	1.00	0.65
Mean	0.42	0.24	(0.00, 0.04)	0.84	0.51	3.06	0.98	0.56
<b>Panel I: Overall</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.44	0.29	(0.06, 0.10)	1.36	0.53	3.11	0.92	0.66
Orig. Sig.	0.49	0.30	(0.06, 0.11)	1.44	0.55	3.06	0.96	0.75
Orig. Insig.	0.18	0.21	(0.01, 0.03)	0.95	0.40	3.40	0.71	0.20

**Table V.3: Methodology-induced variation across sorting variables (FF5, 109).**

This table shows summary statistics of FF5 alphas across all paths for individual sorting variables in panels grouped by categories. The paths are weighted by the relative frequency of each choice. We determine these relative frequencies for each choice by the number of past papers replicated by Hou et al. (2020) that pick the respective choice. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive premia and  $t$ -statistics larger than 1.96. The last column (Mon.) shows the relative number of monotonically increasing portfolio sorts following Patton and Timmermann (2010) and testing all possible matched paths at a 10% significance level. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

**Panel A: Financing**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
CDI	0.18	0.34	(0.21, 0.27)	2.47	-0.04	2.23	0.75	0.60
CSI	0.39	0.17	(0.07, 0.06)	1.24	0.38	2.69	1.00	0.99
DBE	0.24	0.34	(0.20, 0.23)	2.48	0.82	3.27	0.83	0.48
DCOL	-0.01	0.43	(0.21, 0.32)	3.11	0.57	2.49	0.39	0.28
DFNL	0.30	0.30	(0.10, 0.32)	2.45	0.44	2.23	0.98	0.76
NDF	0.29	0.20	(0.02, 0.27)	1.76	0.61	2.40	1.00	0.84
NEF	0.13	0.29	(0.16, 0.14)	1.75	0.06	2.21	0.72	0.38
NXF	0.29	0.32	(0.18, 0.21)	1.97	0.03	2.15	0.93	0.68

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**Table V.3: Methodology-induced variation across sorting variables (FF5, 109).**

Mean	0.22	0.30	(0.14, 0.23)	2.15	0.36	2.46	0.83	0.63
<b>Panel B: Intangibles</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ADM	0.06	0.21	(0.00, 0.01)	0.95	0.39	2.47	0.61	0.03
CFV	-0.11	0.20	(0.01, 0.08)	1.00	0.74	2.94	0.22	0.00
EPRD*	0.98	0.34	(0.04, 0.09)	1.43	0.34	1.94	1.00	1.00
HR	0.10	0.39	(0.23, 0.30)	3.05	0.70	2.73	0.58	0.35
KZI*	0.33	0.16	(0.00, 0.02)	0.86	0.29	2.90	1.00	0.67
LFE*	0.04	0.13	(0.01, 0.01)	0.99	0.93	4.20	0.62	0.02
OL	0.17	0.18	(0.02, 0.00)	0.93	0.17	2.45	0.91	0.19
RDM	0.71	0.35	(0.02, 0.12)	1.41	0.76	2.98	1.00	0.96
RER	0.23	0.14	(0.11, 0.01)	1.21	0.26	2.45	1.00	0.90
TAN*	0.37	0.34	(0.17, 0.08)	1.56	-0.06	2.30	0.95	0.69
WW*	0.27	0.25	(0.14, 0.10)	1.92	-0.89	4.89	0.90	0.64
Mean	0.29	0.24	(0.07, 0.08)	1.39	0.33	2.93	0.80	0.49
<b>Panel C: Investment</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ACI	0.20	0.10	(0.00, 0.04)	0.89	0.58	3.33	1.00	0.68
AG	0.31	0.48	(0.26, 0.32)	3.44	0.80	2.80	0.82	0.56
DINV	0.39	0.27	(0.21, 0.21)	2.08	0.78	3.20	1.00	0.93
DNOA	0.53	0.36	(0.21, 0.26)	2.51	0.81	2.92	1.00	0.97
DPIA	0.45	0.39	(0.24, 0.29)	2.95	0.38	2.56	0.95	0.82
DWC	0.51	0.21	(0.17, 0.10)	1.64	0.34	2.74	1.00	1.00
IG	0.19	0.23	(0.07, 0.22)	1.93	0.69	3.00	0.90	0.53
NOA	0.71	0.32	(0.17, 0.12)	1.76	0.49	2.83	1.00	1.00
OA	0.47	0.14	(0.02, 0.08)	1.16	1.31	5.29	1.00	1.00
PTA	0.23	0.15	(0.04, 0.09)	1.26	-0.06	2.46	1.00	0.71
Mean	0.40	0.27	(0.14, 0.17)	1.96	0.61	3.11	0.97	0.82
<b>Panel D: Momentum</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
52W	0.29	0.39	(0.07, 0.14)	1.51	-0.89	5.20	0.86	0.28
ABR	1.02	0.98	(0.34, 0.21)	3.26	-0.03	1.91	1.00	0.95
MOM	0.84	0.50	(0.09, 0.01)	1.26	-0.16	3.10	0.98	0.84
RMOM	0.53	0.22	(0.04, 0.01)	0.95	-0.11	2.37	1.00	0.94
RS	0.47	0.19	(0.12, 0.13)	1.67	0.49	3.76	1.00	0.95
SUE	0.57	0.56	(0.17, 0.30)	3.60	0.88	2.42	1.00	0.91
TES	0.50	0.43	(0.11, 0.29)	2.67	0.75	2.28	1.00	0.92
Mean	0.60	0.47	(0.13, 0.16)	2.13	0.13	3.00	0.98	0.83
<b>Panel E: Profitability</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ATO*	0.30	0.16	(0.01, 0.02)	0.93	0.48	3.34	1.00	0.70
BL*	0.41	0.17	(0.02, 0.00)	0.79	-0.14	2.21	1.00	0.96
CBOP	0.60	0.18	(0.02, 0.06)	1.21	0.66	3.70	1.00	1.00
CTO*	-0.01	0.15	(0.00, 0.05)	1.03	0.13	2.88	0.41	0.02
GPA	0.23	0.13	(0.00, 0.01)	0.82	0.07	2.53	1.00	0.59
O	0.34	0.14	(0.01, 0.01)	0.86	0.32	2.77	1.00	0.86
OPE	-0.11	0.21	(0.10, 0.11)	1.58	-0.24	2.73	0.25	0.02
ROA	0.41	0.28	(0.10, 0.17)	1.88	0.62	3.30	0.97	0.81
ROE	0.40	0.31	(0.05, 0.23)	2.05	0.83	2.94	0.99	0.78
TBI	0.18	0.26	(0.09, 0.17)	1.71	0.46	3.27	0.85	0.34
Z*	-0.13	0.20	(0.01, 0.16)	1.59	1.23	4.35	0.20	0.04
Mean	0.24	0.20	(0.04, 0.09)	1.31	0.40	3.09	0.79	0.56

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**Table V.3: Methodology-induced variation across sorting variables (FF5, 109).**

<b>Panel F: Size</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ME	0.33	0.52	(0.14, 0.29)	3.82	1.42	4.48	0.67	0.38
<b>Panel G: Trading frictions</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AMI	0.20	0.26	(0.03, 0.18)	2.26	1.45	5.45	0.79	0.28
BETA	0.12	0.12	(0.00, 0.00)	0.45	0.37	3.35	0.93	0.03
BFP	0.11	0.18	(0.00, 0.03)	0.74	0.52	3.49	0.80	0.05
DTV	0.29	0.33	(0.13, 0.16)	1.90	1.27	4.23	0.91	0.37
ISKEW	-0.06	0.20	(0.12, 0.16)	1.68	0.02	2.16	0.32	0.03
IVOL	0.20	0.28	(0.11, 0.16)	1.93	0.13	3.31	0.80	0.36
MDR	0.21	0.36	(0.16, 0.18)	1.98	0.25	2.73	0.75	0.43
SREV	0.38	1.08	(0.31, 0.31)	3.65	0.89	3.15	0.63	0.42
TUR	0.22	0.40	(0.07, 0.21)	1.83	0.60	2.46	0.76	0.32
Mean	0.19	0.36	(0.10, 0.15)	1.82	0.61	3.37	0.74	0.25
<b>Panel H: Valuation</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AM*	-0.17	0.25	(0.01, 0.17)	1.50	0.57	2.58	0.20	0.01
BM	0.07	0.31	(0.01, 0.31)	2.57	0.97	2.81	0.42	0.27
CFM	-0.04	0.23	(0.02, 0.16)	1.50	0.25	2.60	0.36	0.09
DM	-0.34	0.14	(0.00, 0.02)	0.90	-0.28	2.89	0.00	0.00
EBM	-0.15	0.29	(0.07, 0.24)	2.26	0.65	2.72	0.23	0.14
EM	0.03	0.11	(0.01, 0.05)	1.04	0.02	4.71	0.64	0.08
NDM	-0.16	0.12	(0.02, 0.00)	0.80	-0.39	2.86	0.00	0.00
NPY	0.16	0.18	(0.12, 0.01)	1.42	-0.66	2.58	0.86	0.58
OCM	0.01	0.16	(0.01, 0.04)	1.07	0.18	2.76	0.52	0.05
REV	0.03	0.27	(0.01, 0.20)	1.78	1.04	3.44	0.38	0.19
SM	-0.13	0.29	(0.01, 0.18)	1.48	0.59	2.35	0.26	0.02
Mean	-0.06	0.21	(0.03, 0.13)	1.48	0.27	2.94	0.35	0.13
<b>Panel I: Overall</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.25	0.28	(0.09, 0.14)	1.74	0.41	3.02	0.76	0.51
Orig. Sig.	0.25	0.30	(0.10, 0.15)	1.82	0.43	2.99	0.77	0.52
Orig. Insig.	0.24	0.21	(0.04, 0.07)	1.26	0.29	3.16	0.73	0.47

**Table V.4: Methodology-induced variation across sorting variables (Q5, 109).**

This table shows summary statistics of Q5 alphas across all paths for individual sorting variables in panels grouped by categories. The paths are weighted by the relative frequency of each choice. We determine these relative frequencies for each choice by the number of past papers replicated by Hou et al. (2020) that pick the respective choice. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive premia and  $t$ -statistics larger than 1.96. The last column (Mon.) shows the relative number of monotonically increasing portfolio sorts following Patton and Timmermann (2010) and testing all possible matched paths at a 10% significance level. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

**Panel A: Financing**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
CDI	0.13	0.22	(0.04, 0.20)	1.75	0.12	2.71	0.78	0.42
CSI	0.21	0.14	(0.00, 0.00)	0.72	0.31	2.56	0.99	0.26
DBE	0.14	0.30	(0.11, 0.19)	2.00	0.92	3.52	0.68	0.26
DCOL	0.02	0.33	(0.04, 0.30)	2.40	0.77	2.89	0.42	0.27
DFNL	0.19	0.22	(0.03, 0.23)	1.75	0.52	2.40	0.94	0.53
NDF	0.16	0.21	(0.02, 0.25)	1.73	0.58	2.29	0.92	0.45
NEF	-0.02	0.24	(0.08, 0.02)	1.15	-0.22	2.70	0.53	0.03
NXF	0.08	0.29	(0.09, 0.11)	1.53	-0.22	2.40	0.68	0.25
Mean	0.11	0.25	(0.05, 0.16)	1.63	0.35	2.68	0.74	0.31

**Panel B: Intangibles**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ADM	0.13	0.22	(0.00, 0.03)	0.97	0.78	3.28	0.79	0.14
CFV	-0.22	0.17	(0.00, 0.02)	0.72	0.12	2.58	0.07	0.00
EPRD*	0.66	0.26	(0.01, 0.05)	1.25	0.64	2.72	1.00	1.00
HR	0.07	0.35	(0.18, 0.28)	2.55	0.62	2.61	0.54	0.30
KZI*	0.06	0.14	(0.00, 0.01)	0.73	0.29	3.50	0.72	0.03
LFE*	0.01	0.08	(0.00, 0.00)	0.61	0.55	3.84	0.52	0.00
OL	0.16	0.20	(0.00, 0.00)	0.89	0.37	2.59	0.88	0.12
RDM	0.39	0.35	(0.01, 0.09)	1.27	0.86	3.05	0.99	0.37
RER	0.16	0.09	(0.01, 0.04)	0.88	0.37	2.90	1.00	0.52
TAN*	0.31	0.27	(0.02, 0.08)	1.23	0.53	2.61	0.99	0.50
WW*	0.25	0.31	(0.07, 0.11)	1.46	0.03	3.42	0.85	0.32
Mean	0.18	0.22	(0.03, 0.06)	1.14	0.47	3.01	0.76	0.30

**Panel C: Investment**

SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ACI	0.15	0.09	(0.00, 0.03)	0.74	0.83	4.07	0.99	0.30
AG	0.19	0.40	(0.11, 0.32)	2.82	1.05	3.25	0.65	0.38
DINV	0.20	0.29	(0.13, 0.27)	2.19	0.69	3.12	0.85	0.47
DNOA	0.31	0.30	(0.07, 0.24)	2.08	0.92	3.21	0.99	0.68
DPIA	0.21	0.33	(0.24, 0.23)	2.33	0.42	2.77	0.81	0.45
DWC	0.31	0.19	(0.08, 0.10)	1.33	0.52	2.97	1.00	0.77
IG	0.12	0.19	(0.00, 0.18)	1.53	1.01	3.70	0.77	0.29
NOA	0.39	0.22	(0.08, 0.02)	1.21	0.59	3.25	1.00	0.88
OA	0.36	0.20	(0.01, 0.07)	1.22	0.79	3.54	1.00	0.78
PTA	0.14	0.13	(0.07, 0.03)	1.11	-0.36	2.99	0.90	0.45
Mean	0.24	0.23	(0.08, 0.15)	1.66	0.65	3.29	0.90	0.54

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Table V.4: Methodology-induced variation across sorting variables (Q5, 109).

Panel D: Momentum								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
52W	-0.60	0.54	(0.04, 0.20)	1.59	-0.97	5.13	0.06	0.00
ABR	0.73	0.86	(0.33, 0.16)	2.41	0.05	1.88	0.96	0.73
MOM	-0.15	0.24	(0.05, 0.00)	0.87	-1.31	4.79	0.25	0.00
RMOM	0.14	0.21	(0.00, 0.00)	0.78	-0.01	2.30	0.80	0.10
RS	0.19	0.14	(0.04, 0.08)	1.27	0.26	4.74	0.92	0.35
SUE	0.27	0.57	(0.23, 0.30)	3.65	0.83	2.48	0.70	0.49
TES	0.27	0.39	(0.01, 0.27)	2.25	0.78	2.19	0.94	0.50
Mean	0.12	0.42	(0.10, 0.14)	1.83	-0.05	3.36	0.66	0.31
Panel E: Profitability								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ATO*	0.16	0.14	(0.00, 0.00)	0.62	0.31	2.52	0.98	0.14
BL*	0.28	0.20	(0.01, 0.00)	0.75	0.25	2.29	1.00	0.30
CBOP	0.25	0.18	(0.04, 0.08)	1.19	0.25	3.16	0.94	0.54
CTO*	0.09	0.18	(0.00, 0.00)	0.91	-0.16	2.75	0.75	0.03
GPA	0.14	0.15	(0.01, 0.01)	0.78	-0.18	3.61	0.90	0.10
O	0.11	0.12	(0.01, 0.00)	0.71	-0.15	3.17	0.88	0.04
OPE	-0.11	0.20	(0.01, 0.02)	1.05	-0.57	3.02	0.27	0.00
ROA	0.07	0.24	(0.11, 0.13)	1.66	0.32	3.21	0.67	0.18
ROE	0.08	0.30	(0.08, 0.18)	1.90	0.59	2.90	0.60	0.23
TBI	0.12	0.29	(0.02, 0.16)	1.63	0.73	3.66	0.65	0.20
Z*	0.04	0.19	(0.00, 0.09)	1.04	1.12	4.03	0.50	0.09
Mean	0.11	0.20	(0.03, 0.06)	1.11	0.23	3.12	0.74	0.17
Panel F: Size								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
ME	0.52	0.72	(0.19, 0.34)	3.89	1.07	3.80	0.87	0.60
Panel G: Trading frictions								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AMI	0.21	0.27	(0.02, 0.18)	2.30	1.20	5.29	0.78	0.34
BETA	-0.24	0.11	(0.00, 0.00)	0.42	-0.41	3.79	0.00	0.00
BFP	-0.26	0.21	(0.00, 0.02)	0.66	-0.08	3.28	0.04	0.00
DTV	0.26	0.39	(0.01, 0.21)	2.01	0.99	4.23	0.78	0.39
ISKEW	-0.01	0.16	(0.08, 0.06)	1.38	-0.05	2.95	0.47	0.05
IVOL	-0.08	0.25	(0.08, 0.04)	1.43	-0.69	4.06	0.40	0.03
MDR	0.00	0.35	(0.05, 0.10)	1.38	-0.02	3.00	0.49	0.09
SREV	0.77	1.11	(0.31, 0.25)	3.09	0.90	3.34	0.82	0.62
TUR	0.10	0.29	(0.00, 0.16)	1.19	0.97	2.96	0.55	0.17
Mean	0.08	0.35	(0.06, 0.11)	1.54	0.31	3.65	0.48	0.19
Panel H: Valuation								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
AM*	-0.07	0.21	(0.00, 0.05)	0.89	0.97	4.24	0.29	0.02
BM	0.11	0.29	(0.00, 0.17)	1.39	1.13	3.36	0.55	0.18
CFM	0.07	0.21	(0.00, 0.03)	0.91	0.08	3.07	0.68	0.07
DM	-0.14	0.14	(0.00, 0.00)	0.60	-0.07	3.15	0.11	0.00
EBM	-0.02	0.27	(0.00, 0.14)	1.22	0.73	2.92	0.36	0.07
EM	0.02	0.11	(0.00, 0.00)	0.64	0.03	4.83	0.61	0.01
NDM	0.05	0.17	(0.00, 0.01)	0.88	0.15	2.83	0.64	0.02
NPY	0.15	0.12	(0.03, 0.00)	0.96	-0.74	3.34	0.89	0.41
OCM	0.17	0.20	(0.00, 0.01)	0.76	0.38	2.46	0.93	0.11
REV	0.13	0.26	(0.00, 0.19)	1.82	1.33	3.90	0.58	0.20
SM	0.00	0.27	(0.00, 0.04)	0.97	0.48	2.44	0.44	0.03

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**Table V.4: Methodology-induced variation across sorting variables (Q5, 109).**

Mean	0.04	0.20	(0.00, 0.06)	1.00	0.41	3.32	0.55	0.10
<b>Panel I: Overall</b>								
SV	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.13	0.26	(0.05, 0.11)	1.41	0.37	3.21	0.70	0.27
Orig. Sig.	0.13	0.28	(0.05, 0.12)	1.49	0.35	3.22	0.68	0.28
Orig. Insig.	0.18	0.20	(0.01, 0.04)	0.95	0.45	3.19	0.76	0.24

## VI Fixing choices of decision forks

In Table VI.1 we document all summary statistics of premia conditional on fixing one of the corresponding choices of each fork separately. Moreover, in Figures VI.10 to VI.14, we graphically investigate the effects of fixing choices of the decision forks. Therefore, we plot the distribution of premia holding the branches in the decision forks constant. To allow for a fair comparison, we demean the premia of each sorting variable and aggregate thereafter. Otherwise, the locations of premia across sorting variables would impact the results. Additionally, all the figures are split based on the sorting variables' groups.

**Table VI.1: Impact of fixing specific choices.**

This table shows summary statistics holding the individual choices of the panel's decision fork constant. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the premia. We also show the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive premia and  $t$ -statistics larger than 1.96. The last column (Mon.) shows the relative number of monotonically increasing portfolio sorts following Patton and Timmermann (2010) and testing all possible pairs at a 10% significance level.

**Panel A: Size exclusion**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
0	0.33	0.24	(0.05, 0.08)	1.28	0.59	3.53	0.90	0.57	0.48
0.2	0.25	0.17	(0.01, 0.03)	0.86	0.35	3.18	0.89	0.45	0.44

**Panel B: Financials**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
Excluded	0.28	0.20	(0.03, 0.06)	1.10	0.73	4.23	0.90	0.49	0.44
Included	0.28	0.19	(0.03, 0.05)	1.07	0.74	4.25	0.89	0.51	0.47

**Panel C: Utilities**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
Excluded	0.29	0.20	(0.03, 0.05)	1.09	0.74	4.29	0.90	0.50	0.45
Included	0.28	0.19	(0.03, 0.05)	1.09	0.77	4.29	0.89	0.51	0.45

**Panel D: Negative book equity**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
Excluded	0.28	0.19	(0.03, 0.06)	1.10	0.74	4.22	0.90	0.50	0.45
Included	0.28	0.19	(0.03, 0.05)	1.10	0.75	4.29	0.90	0.50	0.45

**Panel E: Negative earnings**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
Excluded	0.25	0.18	(0.02, 0.05)	1.03	0.58	3.68	0.89	0.49	0.46
Included	0.31	0.20	(0.03, 0.05)	1.07	0.72	4.13	0.91	0.52	0.44

**Panel F: Stock-age exclusion**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
0	0.29	0.20	(0.03, 0.06)	1.14	0.73	4.17	0.89	0.52	0.45
2	0.26	0.19	(0.03, 0.06)	1.11	0.80	4.45	0.89	0.50	0.46

**Panel G: Price exclusion**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
0	0.29	0.20	(0.03, 0.06)	1.15	0.82	4.38	0.90	0.51	0.46
1	0.28	0.20	(0.03, 0.06)	1.10	0.68	3.82	0.90	0.51	0.46
5	0.27	0.19	(0.02, 0.05)	1.01	0.50	3.47	0.90	0.50	0.44

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**Table VI.1: Impact of fixing specific choices.**

**Panel H: Sorting variable lag**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
1m	0.27	0.16	(0.02, 0.04)	0.94	0.66	5.24	0.88	0.34	0.26
3m	0.28	0.16	(0.03, 0.04)	0.93	0.67	4.35	0.89	0.48	0.45
6m	0.25	0.14	(0.01, 0.03)	0.84	0.63	4.28	0.88	0.46	0.42
FF	0.25	0.13	(0.00, 0.03)	0.84	0.75	4.05	0.91	0.50	0.45

**Panel I: Rebalancing**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
FF	0.26	0.14	(0.01, 0.03)	0.86	0.73	4.16	0.90	0.51	0.44
monthly	0.27	0.17	(0.03, 0.04)	0.99	0.72	4.25	0.89	0.49	0.45

**Panel J: BP: Quantiles (main)**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
10	0.31	0.21	(0.02, 0.05)	1.05	0.68	4.03	0.89	0.51	0.33
5	0.25	0.16	(0.02, 0.05)	1.00	0.71	3.98	0.90	0.50	0.45

**Panel K: Double sort**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
Dependent	0.28	0.18	(0.03, 0.05)	1.10	0.82	4.27	0.90	0.52	0.46
Independent	0.28	0.19	(0.03, 0.05)	1.06	0.71	3.93	0.90	0.51	0.45
Single	0.28	0.20	(0.02, 0.07)	1.08	0.88	4.77	0.89	0.45	0.44

**Panel L: BP: Quantiles (second)**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
2	0.28	0.19	(0.03, 0.05)	1.07	0.76	4.13	0.90	0.52	0.47
5	0.28	0.19	(0.03, 0.05)	1.07	0.74	3.96	0.90	0.51	0.45

**Panel M: BP: Exchanges**

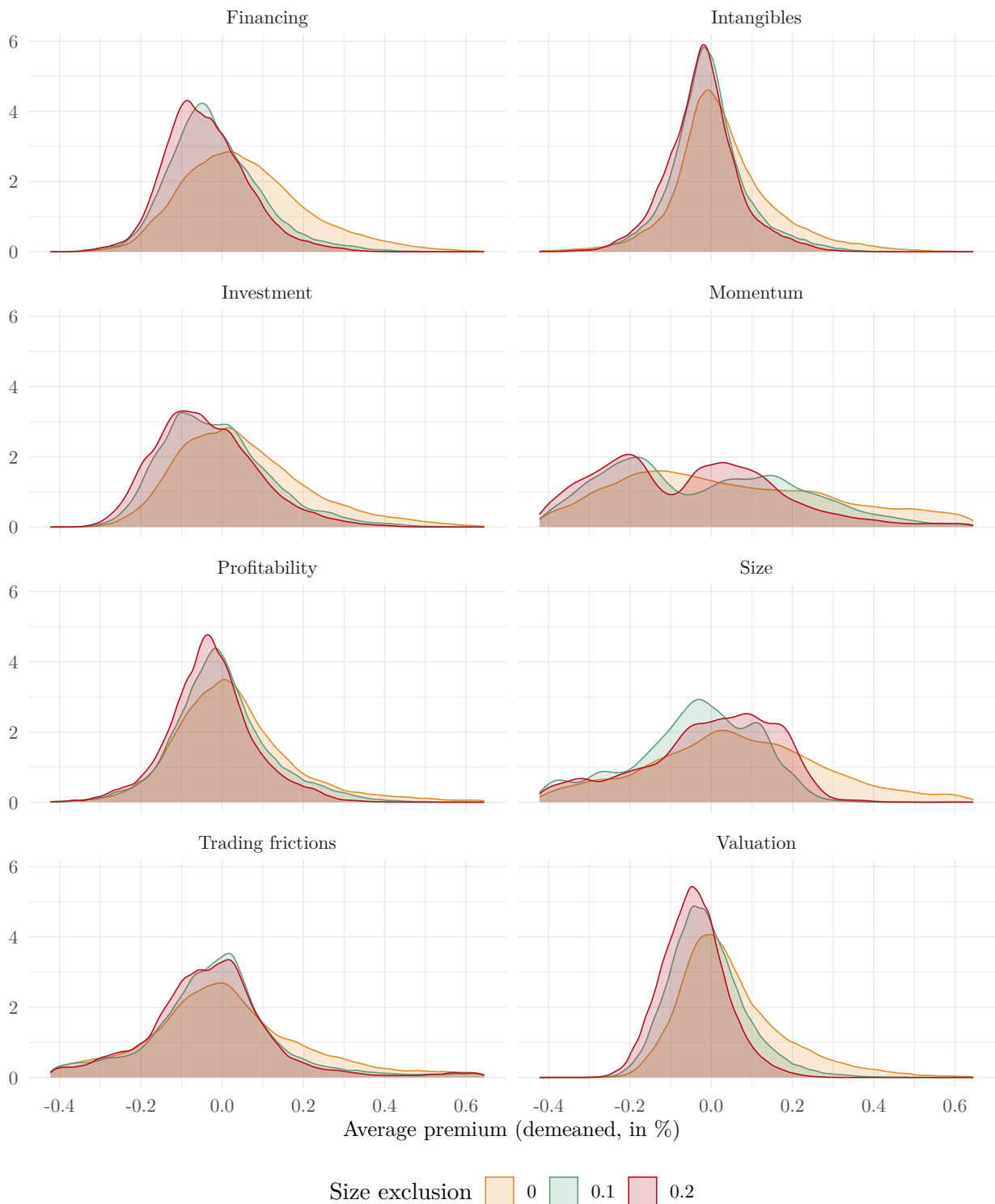
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
All	0.31	0.22	(0.04, 0.06)	1.15	0.62	3.78	0.90	0.53	0.46
NYSE	0.25	0.17	(0.02, 0.04)	0.95	0.65	4.20	0.90	0.48	0.45

**Panel N: Weighting scheme**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
EW	0.30	0.20	(0.04, 0.06)	1.14	0.78	4.08	0.90	0.56	0.47
VW	0.26	0.18	(0.02, 0.05)	0.98	0.70	4.13	0.89	0.45	0.43

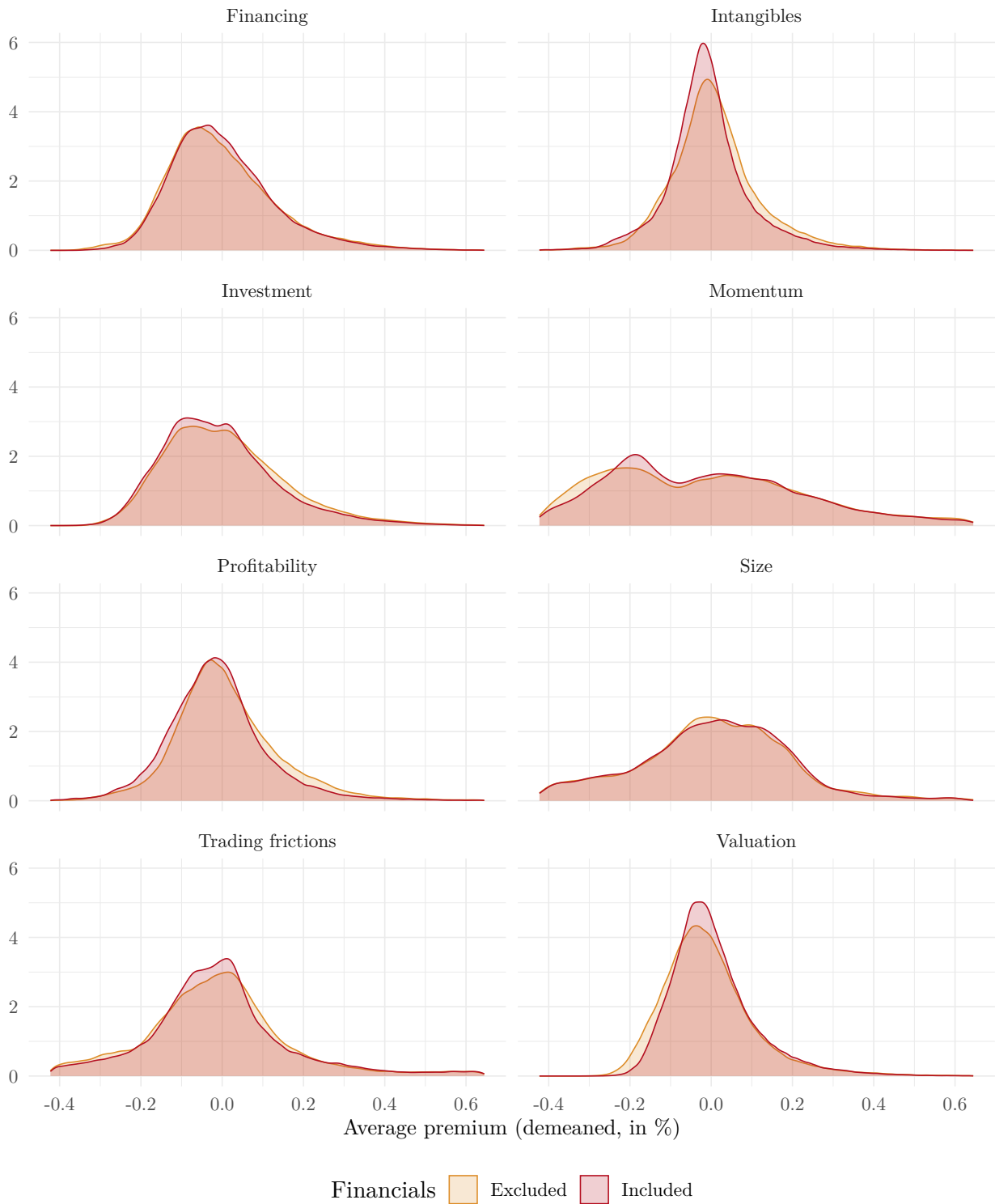
### Figure VI.1: Fixing choices of the decision fork: Size exclusion.

This figure shows the distribution of premia when fixing choices of the fork “size exclusion”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



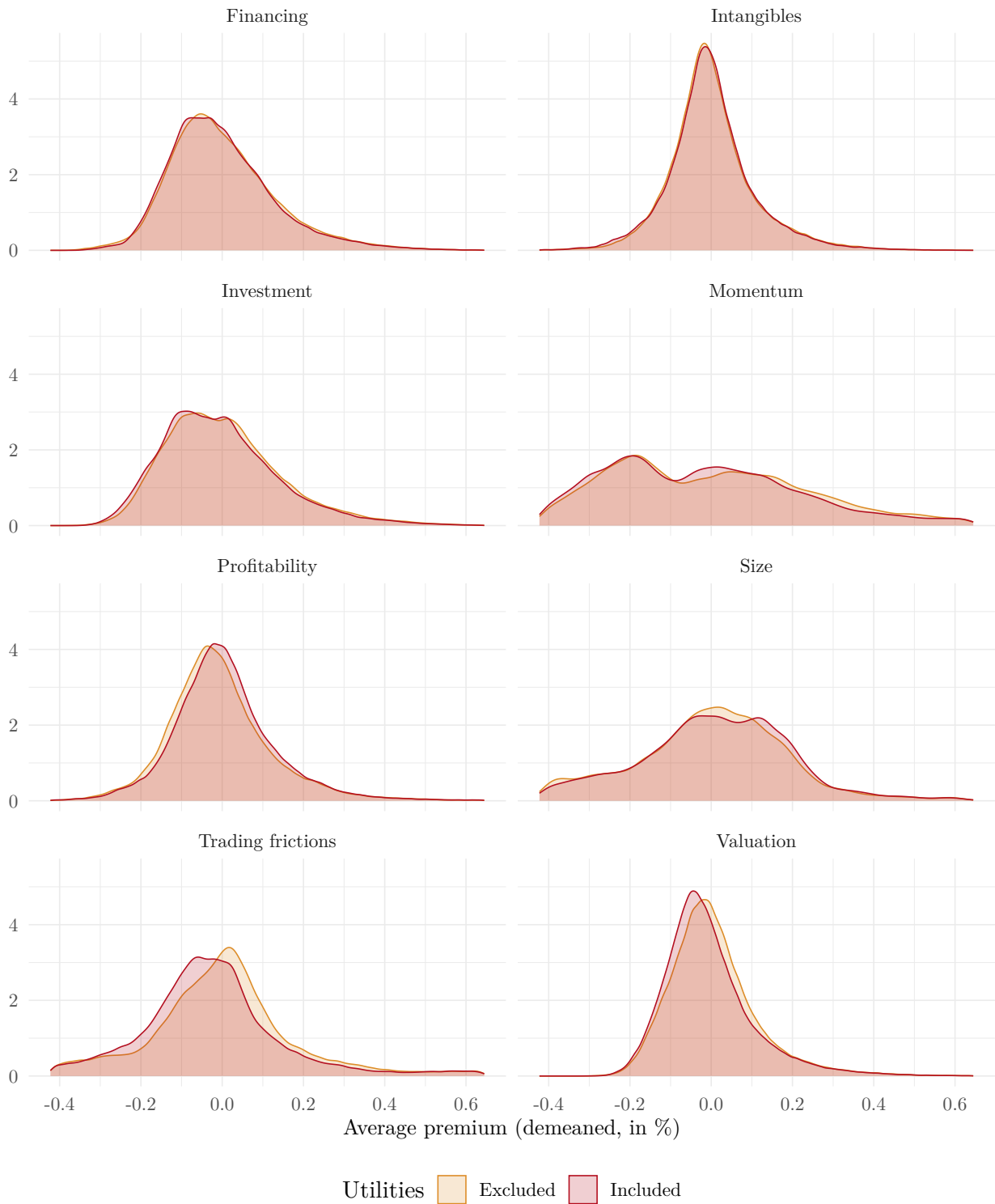
### Figure VI.2: Fixing choices of the decision fork: Exclusion of financials.

This figure shows the distribution of premia when fixing choices of the fork “exclusion of financials”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



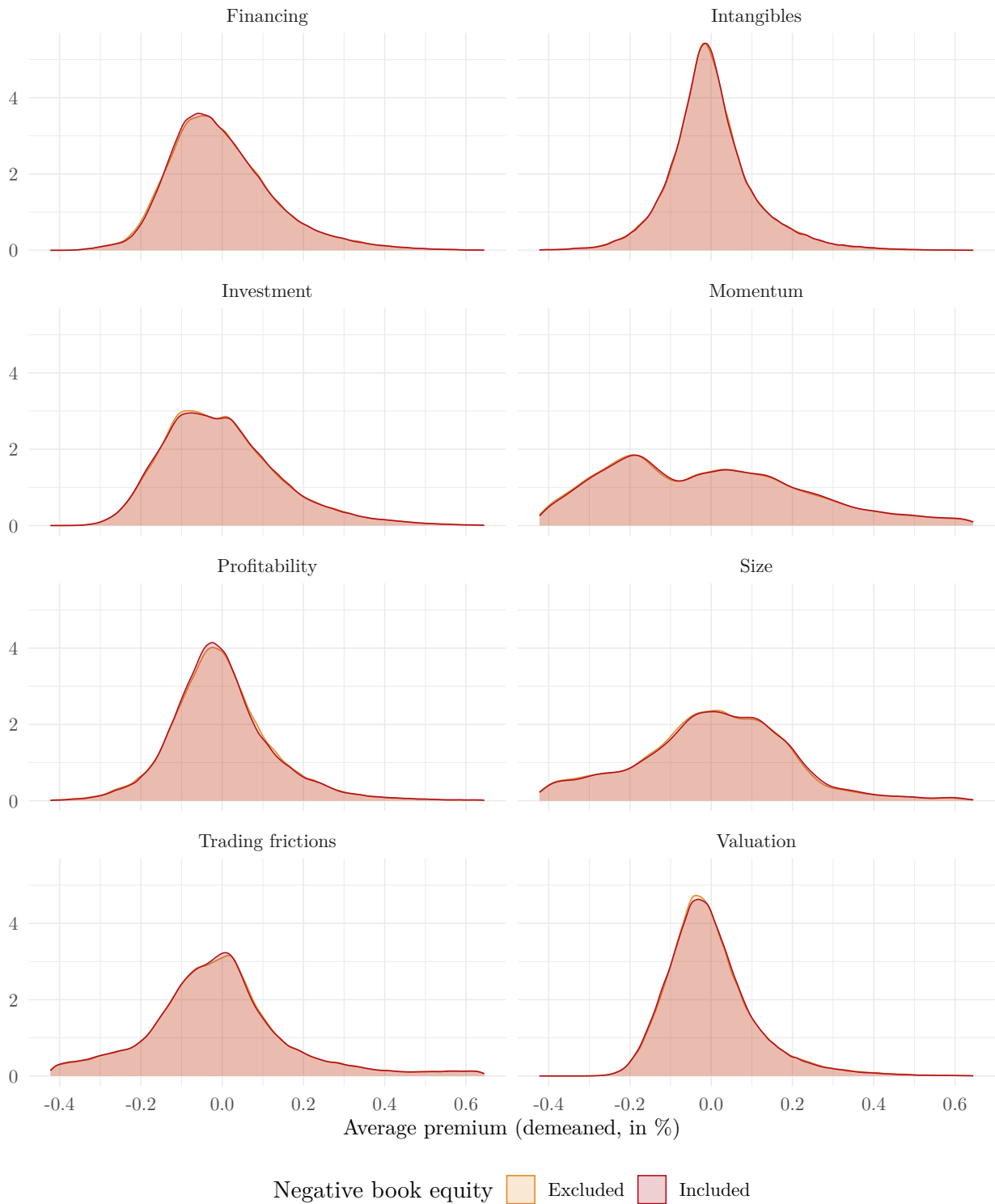
**Figure VI.3: Fixing choices of the decision fork: Exclusion of utilities.**

This figure shows the distribution of premia when fixing choices of the fork “exclusion of utilities”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



# Figure VI.4: Fixing choices of the decision fork: Exclusion of negative book equity.

This figure shows the distribution of premia when fixing choices of the fork “exclusion of negative book equity”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



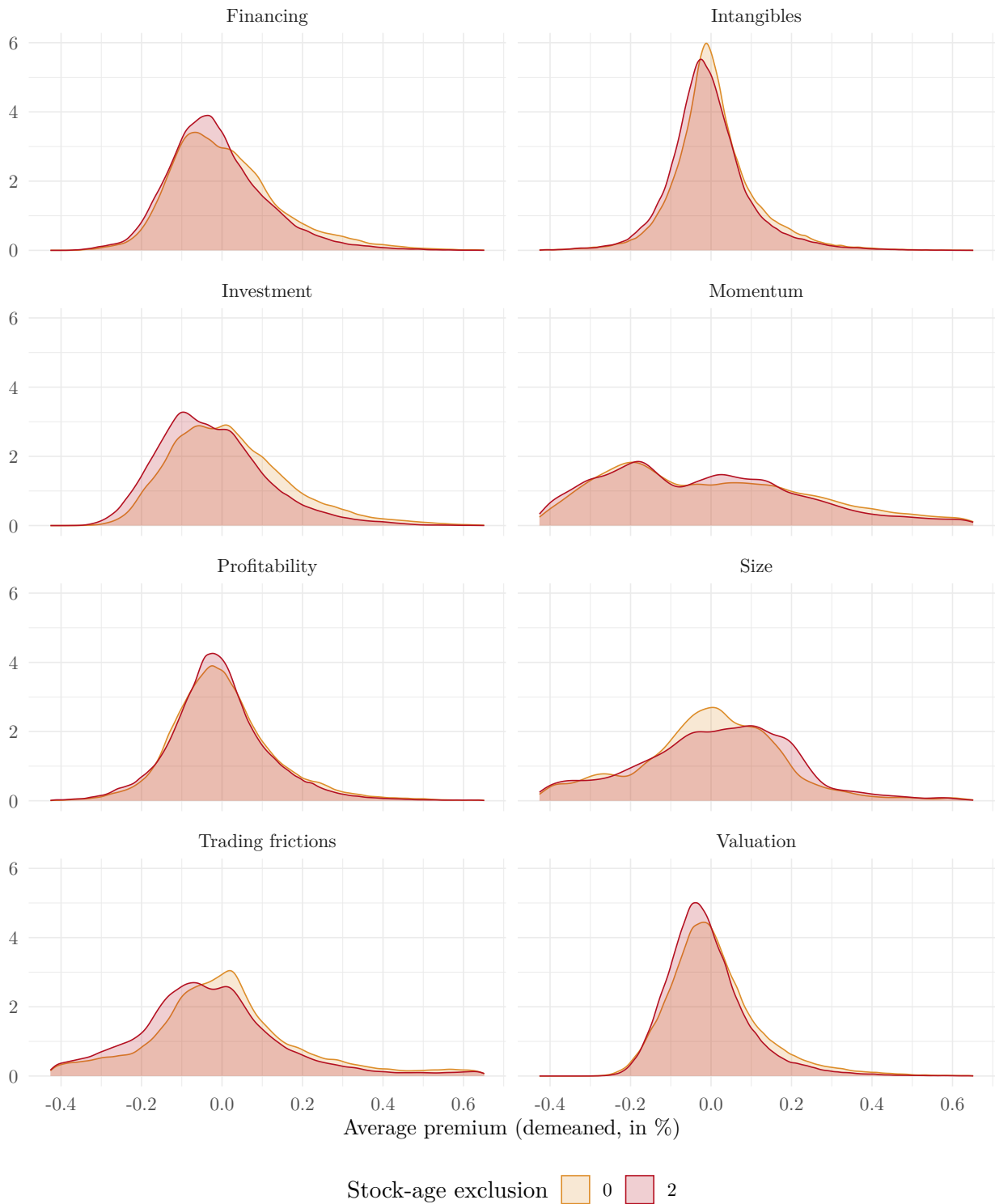
### Figure VI.5: Fixing choices of the decision fork: Exclusion of negative earnings.

This figure shows the distribution of premia when fixing choices of the fork “exclusion of negative earnings”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



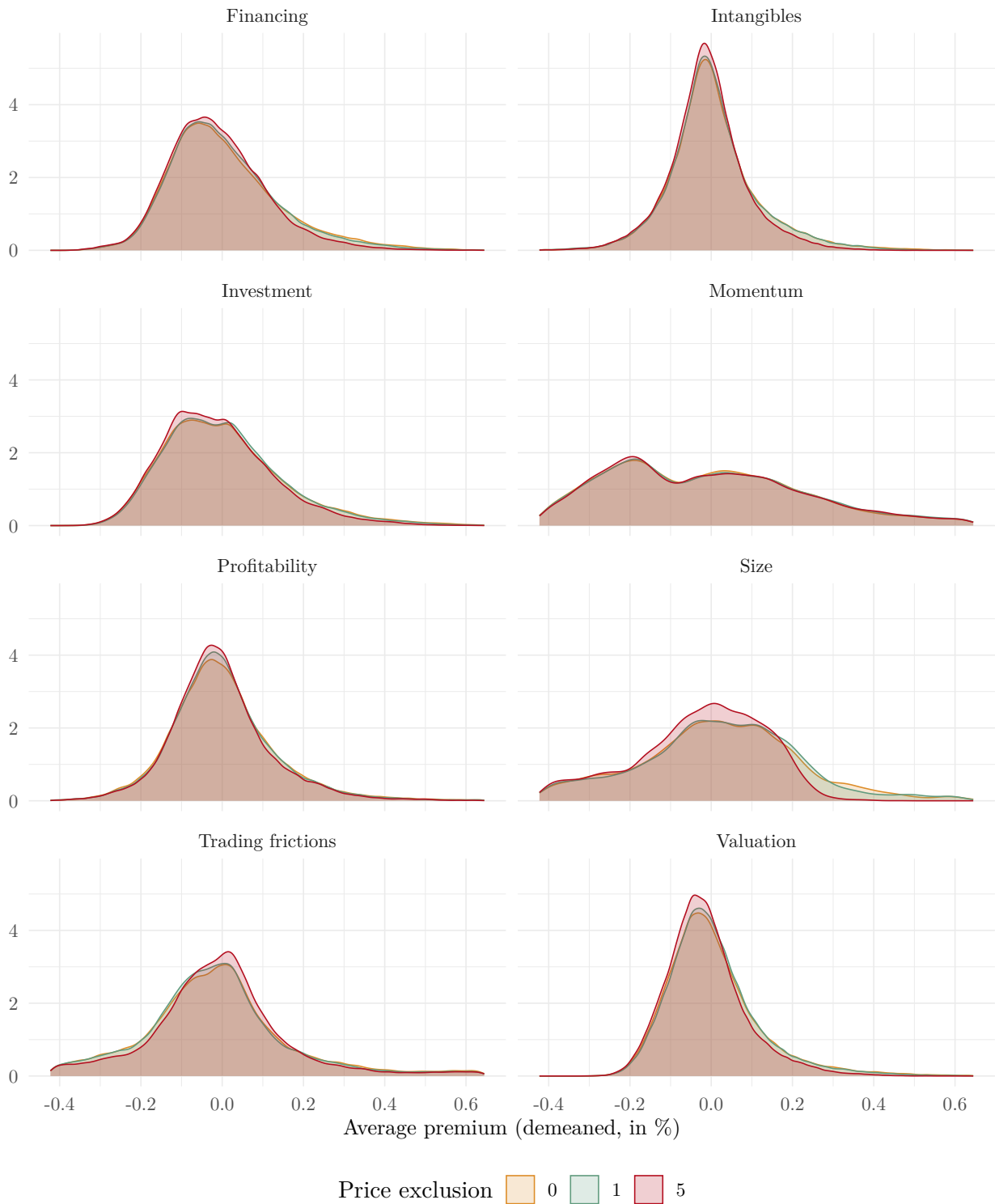
**Figure VI.6: Fixing choices of the decision fork: Stock-age exclusion.**

This figure shows the distribution of premia when fixing choices of the fork “stock-age exclusion”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



**Figure VI.7: Fixing choices of the decision fork: Price exclusion.**

This figure shows the distribution of premia when fixing choices of the fork “price exclusion”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.





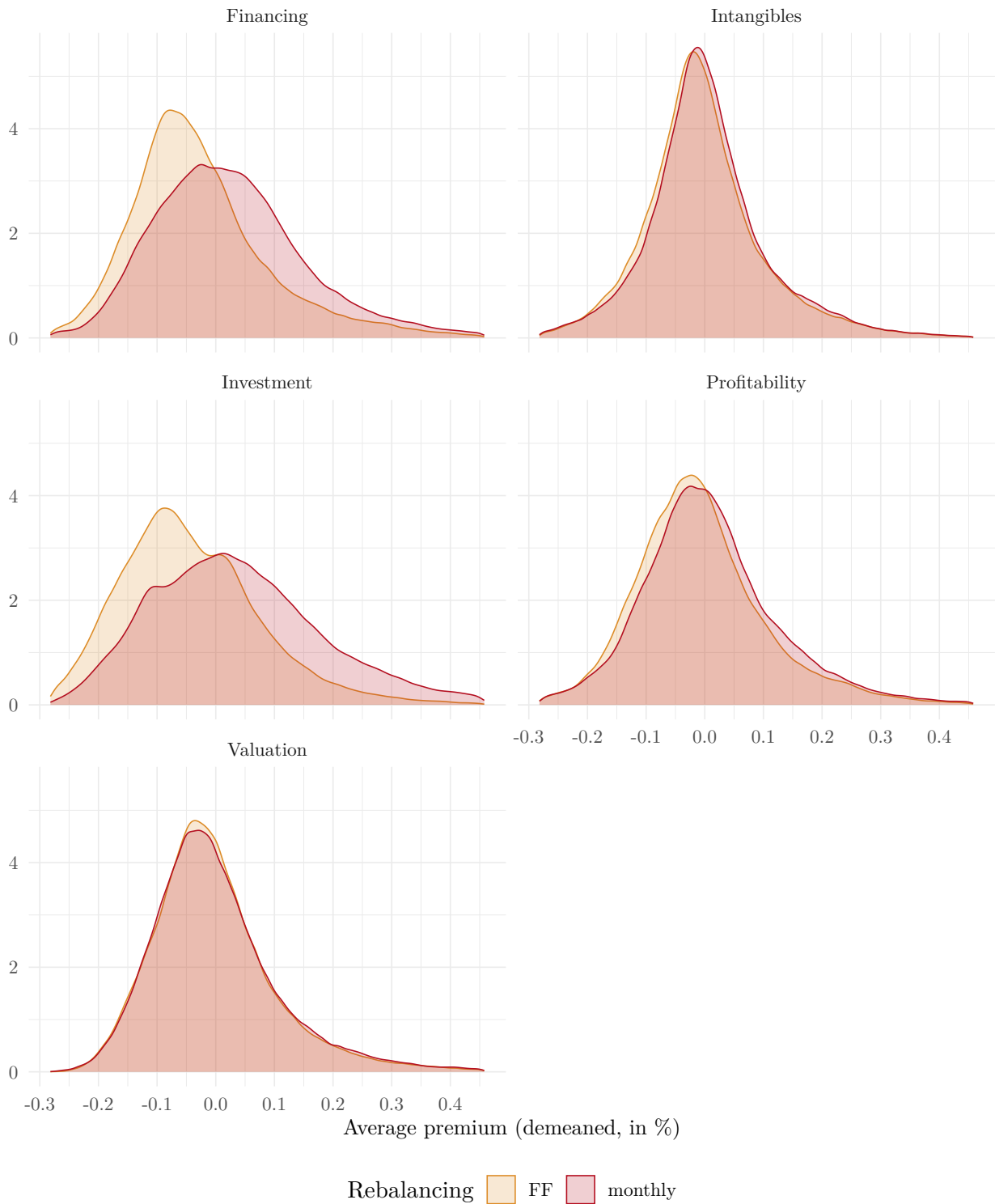
### Figure VI.8: Fixing choices of the decision fork: Sorting variable lag.

This figure shows the distribution of premia when fixing choices of the fork “sorting variable lag”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



### Figure VI.9: Fixing choices of the decision fork: Rebalancing.

This figure shows the distribution of premia when fixing choices of the fork “rebalancing”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



# Figure VI.10: Fixing choices of the decision fork: Breakpoints: Quantiles (main).

This figure shows the distribution of premia when fixing choices of the fork “breakpoints: quantiles (main)”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



**Figure VI.11: Fixing choices of the decision fork: Double sort.**

This figure shows the distribution of premia when fixing choices of the fork “double sort”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



**Figure VI.12: Fixing choices of the decision fork: Breakpoints: Quantiles (second).**

This figure shows the distribution of premia when fixing choices of the fork “breakpoints: quantiles (second)”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



BP: Quantiles (second) ■ 2 ■ 5

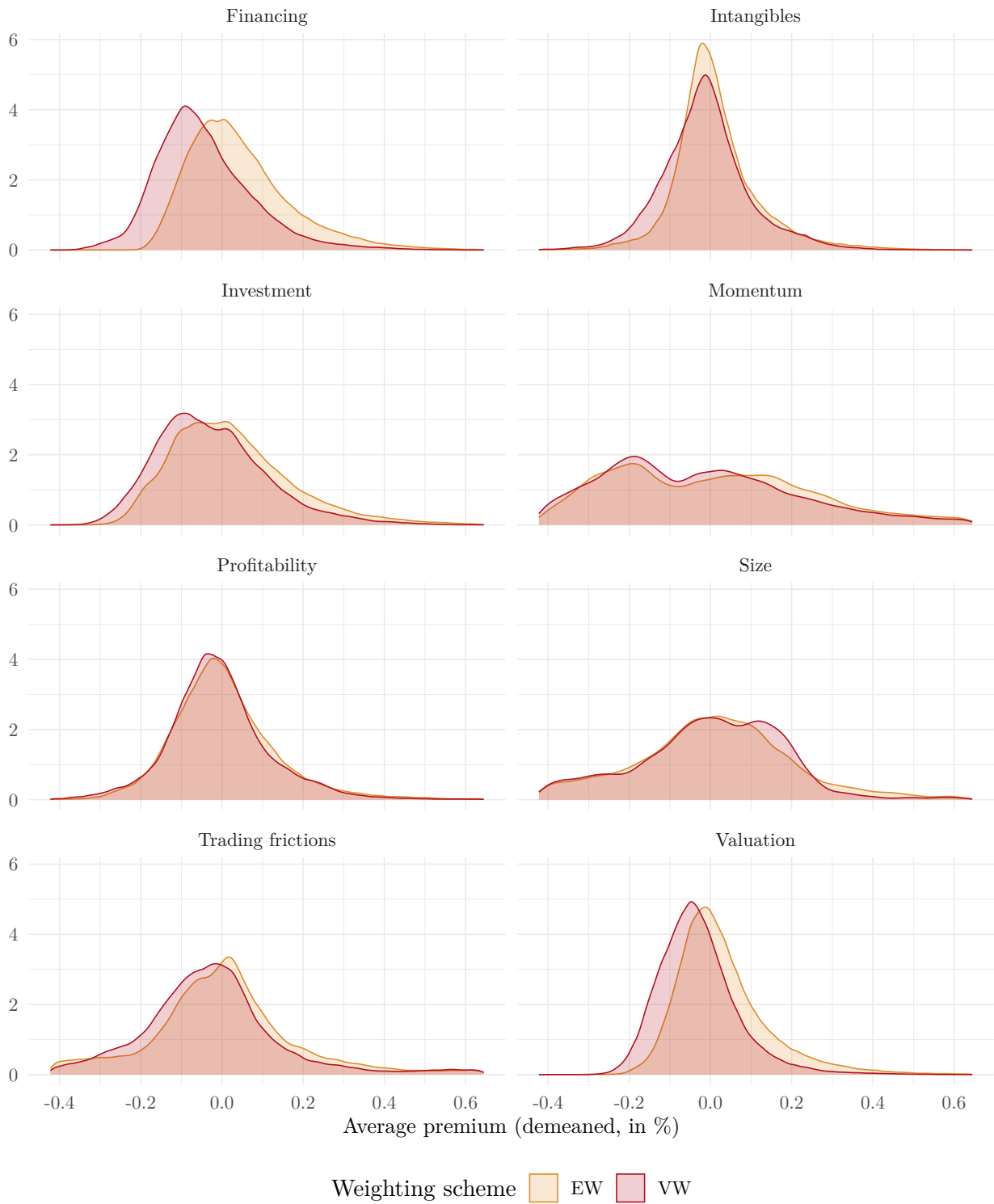
**Figure VI.13: Fixing choices of the decision fork: Breakpoints: Exchanges.**

This figure shows the distribution of premia when fixing choices of the fork “breakpoints: exchanges”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



**Figure VI.14: Fixing choices of the decision fork: Weighting scheme.**

This figure shows the distribution of premia when fixing choices of the fork “weighting scheme”. In separate panels, we show the distribution of demeaned premia (in %) for the different groups.



## VII Fixing choices of decision forks: Factor alphas

This section shows methodology-induced variation and summary statistics for CAPM, FF5, and Q5 alphas conditional on fixing choices of decision forks.

**Table VII.1: Impact of fixing specific choices: CAPM alphas.**

This table shows summary statistics holding the individual choices of the panel's decision fork constant. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the CAPM-adjusted premia. We also show the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of CAPM-adjusted premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive CAPM-adjusted premia and  $t$ -statistics larger than 1.96.

### Panel A: Size exclusion

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.42	0.26	(0.06, 0.09)	1.38	0.55	3.31	0.91	0.69
0.2	0.34	0.18	(0.02, 0.03)	0.93	0.34	3.12	0.89	0.61

### Panel B: Financials

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.38	0.21	(0.04, 0.06)	1.18	0.70	3.97	0.91	0.64
Included	0.37	0.20	(0.04, 0.06)	1.15	0.69	3.98	0.90	0.65

### Panel C: Utilities

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.38	0.21	(0.04, 0.06)	1.17	0.71	4.03	0.90	0.65
Included	0.37	0.21	(0.04, 0.06)	1.17	0.72	4.04	0.90	0.65

### Panel D: Negative book equity

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.37	0.21	(0.04, 0.06)	1.18	0.69	3.96	0.90	0.65
Included	0.37	0.21	(0.04, 0.06)	1.18	0.71	4.01	0.90	0.65

### Panel E: Negative earnings

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.34	0.19	(0.03, 0.06)	1.09	0.55	3.53	0.89	0.63
Included	0.40	0.22	(0.03, 0.06)	1.13	0.66	3.87	0.91	0.67

### Panel F: Stock-age exclusion

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.36	0.22	(0.04, 0.07)	1.22	0.66	3.89	0.88	0.63
2	0.34	0.20	(0.04, 0.07)	1.18	0.74	4.14	0.90	0.62

### Panel G: Price exclusion

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.38	0.22	(0.04, 0.07)	1.23	0.77	4.11	0.90	0.65
1	0.38	0.21	(0.04, 0.07)	1.19	0.66	3.68	0.90	0.65
5	0.37	0.20	(0.04, 0.06)	1.11	0.49	3.37	0.90	0.64

### Panel H: Sorting variable lag

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
1m	0.53	0.19	(0.03, 0.05)	1.08	0.69	4.72	0.96	0.77
3m	0.37	0.18	(0.04, 0.04)	1.01	0.62	4.02	0.89	0.63

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**Table VII.1: Impact of fixing specific choices: CAPM alphas.**

6m	0.35	0.17	(0.02, 0.03)	0.93	0.58	3.84	0.88	0.63
FF	0.31	0.16	(0.01, 0.04)	0.92	0.67	3.76	0.89	0.60
<b>Panel I: Rebalancing</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
FF	0.31	0.16	(0.02, 0.04)	0.93	0.66	3.83	0.89	0.59
monthly	0.37	0.19	(0.04, 0.05)	1.06	0.65	3.92	0.90	0.64
<b>Panel J: BP: Quantiles (main)</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
10	0.42	0.23	(0.03, 0.06)	1.11	0.62	3.77	0.90	0.65
5	0.33	0.17	(0.03, 0.06)	1.06	0.68	3.73	0.90	0.65
<b>Panel K: Double sort</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Dependent	0.37	0.20	(0.04, 0.06)	1.19	0.76	3.94	0.90	0.67
Independent	0.38	0.21	(0.04, 0.06)	1.14	0.68	3.72	0.90	0.65
Single	0.37	0.22	(0.03, 0.08)	1.17	0.79	4.18	0.90	0.59
<b>Panel L: BP: Quantiles (second)</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
2	0.38	0.21	(0.04, 0.06)	1.16	0.71	3.84	0.90	0.66
5	0.38	0.21	(0.05, 0.06)	1.17	0.70	3.73	0.90	0.67
<b>Panel M: BP: Exchanges</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.41	0.23	(0.05, 0.07)	1.22	0.58	3.57	0.90	0.66
NYSE	0.34	0.18	(0.03, 0.05)	1.01	0.57	3.82	0.90	0.63
<b>Panel N: Weighting scheme</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
EW	0.40	0.22	(0.05, 0.07)	1.23	0.72	3.77	0.90	0.68
VW	0.35	0.19	(0.03, 0.05)	1.07	0.66	3.97	0.90	0.61

**Table VII.2: Impact of fixing specific choices: FF5 alphas.**

This table shows summary statistics holding the individual choices of the panel's decision fork constant. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the FF5-adjusted premia. We also show the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of FF5-adjusted premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive FF5-adjusted premia and  $t$ -statistics larger than 1.96.

**Panel A: Size exclusion**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.26	0.24	(0.08, 0.11)	1.58	0.31	3.30	0.78	0.55
0.2	0.16	0.17	(0.03, 0.04)	1.07	0.00	3.09	0.71	0.45

**Panel B: Financials**

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**Table VII.2: Impact of fixing specific choices: FF5 alphas.**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.20	0.20	(0.05, 0.08)	1.38	0.51	4.05	0.72	0.48
Included	0.21	0.18	(0.05, 0.08)	1.36	0.57	4.07	0.76	0.50
<b>Panel C: Utilities</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.20	0.20	(0.05, 0.08)	1.37	0.53	4.12	0.74	0.49
Included	0.20	0.19	(0.05, 0.08)	1.37	0.57	4.20	0.74	0.48
<b>Panel D: Negative book equity</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.20	0.19	(0.05, 0.08)	1.39	0.51	4.02	0.74	0.49
Included	0.20	0.19	(0.05, 0.09)	1.39	0.52	4.03	0.74	0.49
<b>Panel E: Negative earnings</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.20	0.19	(0.05, 0.08)	1.35	0.39	3.60	0.75	0.49
Included	0.20	0.19	(0.05, 0.08)	1.37	0.57	4.19	0.73	0.48
<b>Panel F: Stock-age exclusion</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.20	0.20	(0.06, 0.09)	1.46	0.53	3.98	0.74	0.50
2	0.19	0.19	(0.05, 0.09)	1.41	0.54	4.11	0.74	0.49
<b>Panel G: Price exclusion</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.21	0.20	(0.06, 0.09)	1.47	0.59	4.11	0.74	0.49
1	0.20	0.20	(0.05, 0.09)	1.40	0.47	3.62	0.74	0.49
5	0.19	0.19	(0.05, 0.07)	1.27	0.24	3.31	0.74	0.48
<b>Panel H: Sorting variable lag</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
1m	0.18	0.15	(0.03, 0.07)	1.15	0.73	5.37	0.78	0.32
3m	0.18	0.16	(0.05, 0.06)	1.24	0.38	4.00	0.72	0.45
6m	0.16	0.15	(0.05, 0.06)	1.18	0.32	3.85	0.71	0.44
FF	0.16	0.15	(0.04, 0.07)	1.25	0.42	3.65	0.71	0.47
<b>Panel I: Rebalancing</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
FF	0.16	0.15	(0.05, 0.06)	1.24	0.41	3.70	0.71	0.48
monthly	0.18	0.18	(0.05, 0.08)	1.31	0.44	3.93	0.72	0.46
<b>Panel J: BP: Quantiles (main)</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
10	0.23	0.21	(0.03, 0.08)	1.30	0.50	3.96	0.75	0.48
5	0.18	0.16	(0.04, 0.08)	1.33	0.53	3.76	0.73	0.50
<b>Panel K: Double sort</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Dependent	0.21	0.18	(0.05, 0.08)	1.33	0.59	3.80	0.75	0.51
Independent	0.20	0.19	(0.05, 0.08)	1.31	0.53	3.63	0.74	0.49
Single	0.19	0.23	(0.06, 0.11)	1.54	0.66	4.12	0.72	0.46

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**Table VII.2: Impact of fixing specific choices: FF5 alphas.**

<b>Panel L: BP: Quantiles (second)</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
2	0.20	0.19	(0.05, 0.08)	1.35	0.56	3.74	0.75	0.49
5	0.20	0.19	(0.05, 0.08)	1.30	0.53	3.61	0.75	0.50
<b>Panel M: BP: Exchanges</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.22	0.22	(0.06, 0.09)	1.44	0.42	3.62	0.75	0.50
NYSE	0.18	0.17	(0.04, 0.07)	1.23	0.43	3.92	0.72	0.47
<b>Panel N: Weighting scheme</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
EW	0.23	0.20	(0.05, 0.09)	1.39	0.66	3.87	0.77	0.53
VW	0.18	0.18	(0.04, 0.07)	1.23	0.39	3.84	0.71	0.44

**Table VII.3: Impact of fixing specific choices: Q5 alphas.**

This table shows summary statistics holding the individual choices of the panel's decision fork constant. Each panel contains the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the Q5-adjusted premia. We also show the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of Q5-adjusted premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive Q5-adjusted premia and  $t$ -statistics larger than 1.96.

**Panel A: Size exclusion**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.13	0.22	(0.04, 0.07)	1.24	0.30	3.71	0.73	0.29
0.2	0.04	0.15	(0.02, 0.02)	0.82	-0.11	3.34	0.59	0.15

**Panel B: Financials**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.07	0.17	(0.02, 0.06)	1.08	0.48	4.72	0.63	0.18
Included	0.09	0.16	(0.02, 0.05)	1.04	0.51	4.67	0.68	0.22

**Panel C: Utilities**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.08	0.18	(0.02, 0.06)	1.09	0.47	4.65	0.65	0.20
Included	0.08	0.17	(0.02, 0.06)	1.07	0.49	4.71	0.66	0.20

**Panel D: Negative book equity**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.08	0.17	(0.02, 0.06)	1.08	0.47	4.64	0.65	0.20
Included	0.08	0.18	(0.02, 0.06)	1.09	0.47	4.63	0.65	0.20

**Panel E: Negative earnings**

Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Excluded	0.08	0.16	(0.02, 0.06)	1.03	0.42	3.96	0.67	0.20
Included	0.08	0.18	(0.02, 0.05)	1.09	0.53	4.76	0.63	0.20

*Continued on next page*

**Table VII.3: Impact of fixing specific choices: Q5 alphas.**

<b>Panel F: Stock-age exclusion</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.08	0.18	(0.02, 0.06)	1.12	0.48	4.55	0.66	0.20
2	0.08	0.17	(0.02, 0.06)	1.11	0.52	4.77	0.69	0.20
<b>Panel G: Price exclusion</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
0	0.08	0.18	(0.02, 0.07)	1.16	0.56	4.74	0.66	0.21
1	0.08	0.18	(0.02, 0.06)	1.10	0.42	4.05	0.66	0.21
5	0.07	0.16	(0.02, 0.04)	0.97	0.12	3.55	0.64	0.19
<b>Panel H: Sorting variable lag</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
1m	0.09	0.15	(0.01, 0.04)	0.92	0.53	6.25	0.54	0.17
3m	0.09	0.15	(0.02, 0.04)	0.96	0.35	4.70	0.66	0.22
6m	0.06	0.13	(0.01, 0.04)	0.90	0.31	4.63	0.62	0.18
FF	0.09	0.13	(0.01, 0.04)	0.94	0.50	4.33	0.70	0.20
<b>Panel I: Rebalancing</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
FF	0.10	0.13	(0.01, 0.03)	0.92	0.47	4.42	0.72	0.20
monthly	0.08	0.16	(0.02, 0.05)	1.00	0.45	4.65	0.65	0.21
<b>Panel J: BP: Quantiles (main)</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
10	0.09	0.19	(0.02, 0.06)	1.04	0.48	4.55	0.66	0.20
5	0.07	0.15	(0.02, 0.06)	1.05	0.42	4.32	0.65	0.20
<b>Panel K: Double sort</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
Dependent	0.08	0.16	(0.02, 0.05)	1.02	0.58	4.15	0.66	0.20
Independent	0.08	0.17	(0.02, 0.05)	1.00	0.51	3.91	0.65	0.20
Single	0.08	0.20	(0.03, 0.07)	1.23	0.57	4.31	0.64	0.20
<b>Panel L: BP: Quantiles (second)</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
2	0.08	0.17	(0.02, 0.05)	1.03	0.49	3.99	0.66	0.20
5	0.08	0.16	(0.02, 0.05)	0.99	0.52	3.93	0.65	0.21
<b>Panel M: BP: Exchanges</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
All	0.10	0.19	(0.03, 0.06)	1.14	0.38	4.18	0.67	0.23
NYSE	0.06	0.15	(0.02, 0.04)	0.96	0.42	4.63	0.63	0.17
<b>Panel N: Weighting scheme</b>								
Branch	Mean	NSE	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.
EW	0.10	0.17	(0.02, 0.06)	1.10	0.67	4.57	0.69	0.24
VW	0.06	0.17	(0.02, 0.04)	0.99	0.27	4.03	0.62	0.16

## VIII Methodology-induced variation conditional on fixing size-related choices

We present the variation from portfolio sorts conditional on fixing size-related choices in favor of stocks with large market capitalizations as suggested by Hou et al. (2020) or Soebhag et al. (2023). Relative to the main paper, we sort portfolios conditional only deciles, NYSE breakpoints, and value-weighted returns from single sorts to fix the choices suggested by Hou et al. (2020). In a separate analysis, we also fix the choice to exclude the 20% smallest stocks as suggested by Soebhag et al. (2023). Moreover, we depict the non-standard errors conditional on fixing the choices suggested by Hou et al. (2020) in Figure VIII.1. Additionally, we show the variation in  $t$ -statistics in Figure VIII.2. Lastly, we fix specific choices for sorting variables where the underlying model restricts the set of choices. For instance, Xing (2008) notes that Q-theory might not apply to financial firms and therefore excludes these stocks when sorting portfolios based on the sorting variable “asset growth” (AG).

**Table VIII.1: Methodology-induced variation conditional on fixing size-related forks.**

This table shows summary statistics across paths conditional on fixing size-related choices. We fix the following choices suggested by Hou et al. (2020) and denote all corresponding summary statistics with “HXZ”: deciles, NYSE breakpoints, value-weighted returns, and single sorts. Moreover, we follow Soebhag et al. (2023) and fix on top of these choices also the exclusion of stocks that are smaller than the 20% market capitalization of all NYSE listed stocks. We denote all corresponding summary statistics with “SVV”. We group sorting variables into panels that contain the mean (Mean, in %) of the premia. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). The overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper.

### Panel A: Financing

SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
CDI	-0.04	0.07	(0.00, 0.00)	-0.05	0.07	(0.00, 0.00)
CSI	0.50	0.11	(0.00, 0.00)	0.48	0.11	(0.00, 0.00)
DBE	0.32	0.09	(0.00, 0.00)	0.32	0.08	(0.00, 0.00)
DCOL	0.01	0.07	(0.00, 0.00)	0.02	0.07	(0.00, 0.00)
DFNL	0.21	0.07	(0.00, 0.00)	0.21	0.06	(0.00, 0.00)
NDF	0.32	0.09	(0.00, 0.00)	0.32	0.09	(0.00, 0.00)
NEF	0.14	0.12	(0.00, 0.00)	0.11	0.08	(0.00, 0.00)
NXF	0.23	0.12	(0.00, 0.00)	0.21	0.10	(0.00, 0.00)
Mean	0.21	0.09	(0.00, 0.00)	0.20	0.08	(0.00, 0.00)

### Panel B: Intangibles

SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
ADM	0.36	0.11	(0.00, 0.00)	0.30	0.09	(0.00, 0.00)
CFV	0.22	0.10	(0.00, 0.00)	0.20	0.09	(0.00, 0.00)
EPRD*	0.90	0.08	(0.00, 0.00)	0.90	0.07	(0.00, 0.00)
HR	0.16	0.11	(0.00, 0.00)	0.14	0.10	(0.00, 0.00)
KZI*	-0.07	0.08	(0.00, 0.00)	-0.07	0.08	(0.00, 0.00)
LFE*	0.03	0.13	(0.00, 0.00)	0.03	0.12	(0.00, 0.00)
OL	0.26	0.08	(0.00, 0.00)	0.24	0.07	(0.00, 0.00)
RDM	0.18	0.06	(0.00, 0.00)	0.15	0.05	(0.00, 0.00)
RER	0.27	0.07	(0.00, 0.00)	0.29	0.07	(0.00, 0.00)
TAN*	0.01	0.05	(0.00, 0.00)	0.02	0.05	(0.00, 0.00)
WW*	0.17	0.06	(0.00, 0.00)	0.15	0.05	(0.00, 0.00)
Mean	0.23	0.08	(0.00, 0.00)	0.21	0.08	(0.00, 0.00)

*Continued on next page*

**Table VIII.1: Methodology-induced variation conditional on fixing size-related forks.**

<b>Panel C: Investment</b>						
SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
ACI	0.29	0.07	(0.00, 0.00)	0.29	0.08	(0.00, 0.00)
AG	0.33	0.11	(0.00, 0.00)	0.31	0.12	(0.00, 0.00)
DINV	0.50	0.12	(0.00, 0.12)	0.48	0.12	(0.00, 0.15)
DNOA	0.49	0.11	(0.00, 0.00)	0.49	0.11	(0.00, 0.00)
DPIA	0.33	0.11	(0.00, 0.00)	0.30	0.10	(0.00, 0.00)
DWC	0.53	0.15	(0.00, 0.00)	0.52	0.16	(0.00, 0.00)
IG	0.32	0.10	(0.00, 0.00)	0.31	0.10	(0.00, 0.00)
NOA	0.47	0.12	(0.00, 0.01)	0.46	0.11	(0.00, 0.00)
OA	0.31	0.13	(0.00, 0.13)	0.30	0.12	(0.00, 0.11)
PTA	0.30	0.07	(0.00, 0.00)	0.28	0.06	(0.00, 0.00)
Mean	0.39	0.11	(0.00, 0.03)	0.37	0.11	(0.00, 0.03)
<b>Panel D: Momentum</b>						
SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
52W	0.37	0.51	(0.04, 0.00)	0.34	0.51	(0.06, 0.00)
ABR	0.55	1.15	(0.00, 0.33)	0.53	1.20	(0.00, 0.33)
MOM	0.65	0.45	(0.00, 0.00)	0.62	0.44	(0.00, 0.00)
RMOM	0.44	0.09	(0.00, 0.00)	0.43	0.09	(0.00, 0.00)
RS	0.25	0.05	(0.00, 0.00)	0.24	0.04	(0.00, 0.00)
SUE	0.19	0.18	(0.00, 0.00)	0.18	0.15	(0.00, 0.00)
TES	0.23	0.15	(0.00, 0.00)	0.22	0.12	(0.00, 0.00)
Mean	0.38	0.37	(0.01, 0.05)	0.37	0.37	(0.01, 0.05)
<b>Panel E: Profitability</b>						
SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
ATO*	0.37	0.12	(0.00, 0.00)	0.37	0.12	(0.00, 0.00)
BL*	0.03	0.05	(0.00, 0.00)	0.03	0.04	(0.00, 0.00)
CBOP	0.43	0.14	(0.00, 0.01)	0.40	0.12	(0.00, 0.00)
CTO*	0.18	0.09	(0.00, 0.00)	0.18	0.08	(0.00, 0.00)
GPA	0.26	0.11	(0.00, 0.00)	0.26	0.11	(0.00, 0.00)
O	-0.01	0.06	(0.00, 0.00)	-0.02	0.05	(0.00, 0.00)
OPE	0.23	0.08	(0.00, 0.00)	0.21	0.07	(0.00, 0.00)
ROA	0.32	0.10	(0.00, 0.00)	0.28	0.08	(0.00, 0.00)
ROE	0.36	0.10	(0.00, 0.00)	0.34	0.10	(0.00, 0.00)
TBI	0.11	0.09	(0.00, 0.00)	0.09	0.06	(0.00, 0.00)
Z*	-0.03	0.07	(0.00, 0.00)	-0.03	0.06	(0.00, 0.00)
Mean	0.21	0.09	(0.00, 0.00)	0.19	0.08	(0.00, 0.00)
<b>Panel F: Size</b>						
SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
ME	0.21	0.10	(0.00, 0.00)	0.23	0.09	(0.00, 0.00)
<b>Panel G: Trading frictions</b>						
SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
AMI	0.27	0.06	(0.00, 0.00)	0.25	0.04	(0.00, 0.00)
BETA	-0.03	0.12	(0.00, 0.00)	-0.01	0.11	(0.00, 0.00)
BFP	0.04	0.09	(0.00, 0.00)	0.04	0.10	(0.00, 0.00)
DTV	0.30	0.08	(0.00, 0.00)	0.28	0.06	(0.00, 0.00)
ISKEW	-0.02	0.37	(0.33, 0.00)	-0.02	0.38	(0.33, 0.00)
IVOL	0.17	0.24	(0.00, 0.00)	0.14	0.22	(0.00, 0.00)
MDR	0.09	0.20	(0.00, 0.00)	0.08	0.16	(0.00, 0.00)
SREV	-0.09	0.62	(0.00, 0.33)	-0.08	0.59	(0.00, 0.33)
TUR	-0.01	0.09	(0.00, 0.00)	-0.04	0.08	(0.00, 0.00)
Mean	0.08	0.21	(0.04, 0.04)	0.07	0.19	(0.04, 0.04)

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**Table VIII.1: Methodology-induced variation conditional on fixing size-related forks.**

**Panel H: Valuation**

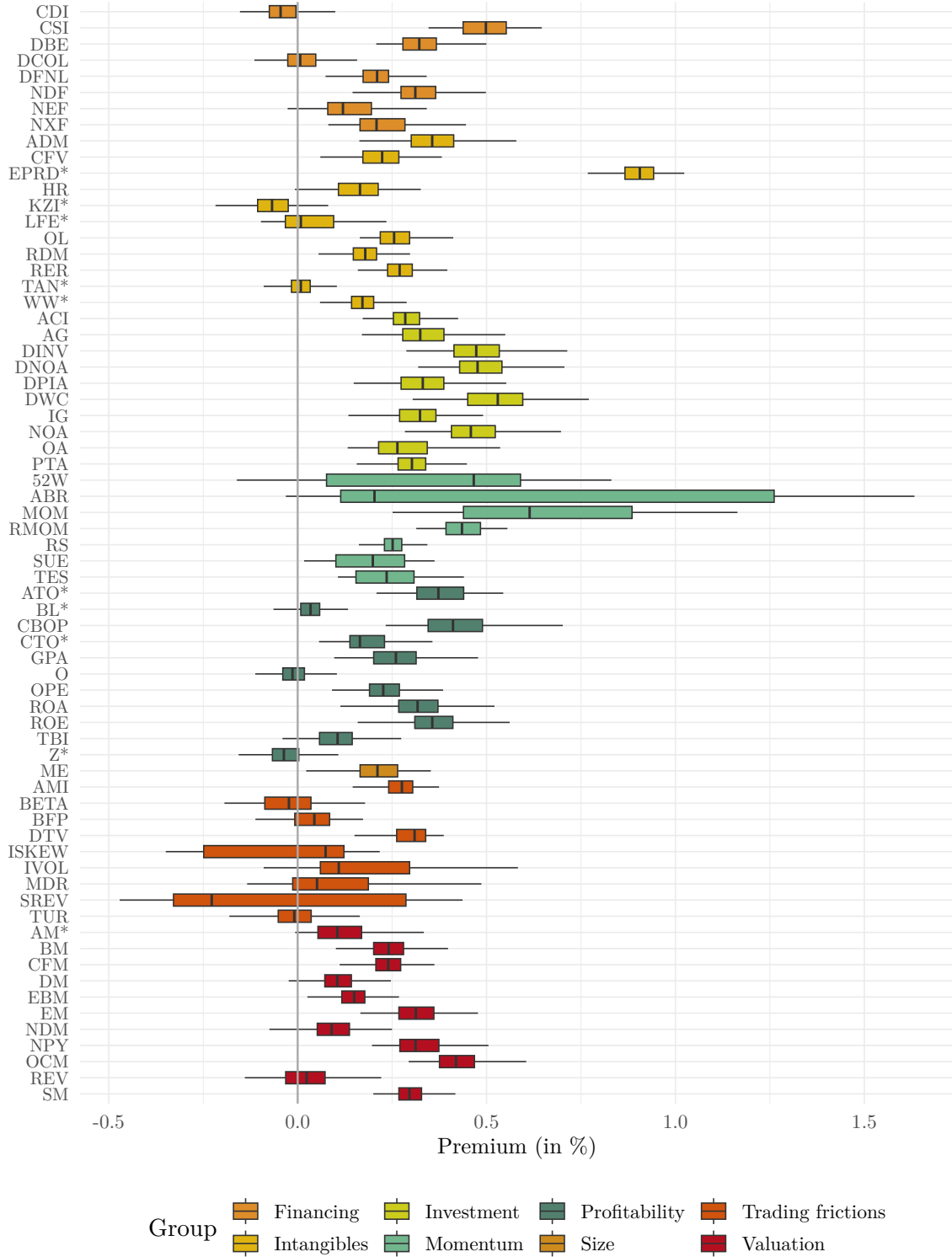
SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
AM*	0.11	0.12	(0.00, 0.00)	0.10	0.11	(0.00, 0.00)
BM	0.24	0.08	(0.00, 0.00)	0.21	0.07	(0.00, 0.00)
CFM	0.24	0.07	(0.00, 0.00)	0.24	0.07	(0.00, 0.00)
DM	0.11	0.07	(0.00, 0.00)	0.09	0.05	(0.00, 0.00)
EBM	0.15	0.06	(0.00, 0.00)	0.12	0.06	(0.00, 0.00)
EM	0.31	0.09	(0.00, 0.00)	0.30	0.10	(0.00, 0.00)
NDM	0.09	0.09	(0.00, 0.00)	0.09	0.09	(0.00, 0.00)
NPY	0.32	0.10	(0.00, 0.00)	0.31	0.09	(0.00, 0.00)
OCM	0.43	0.09	(0.00, 0.00)	0.41	0.07	(0.00, 0.00)
REV	0.02	0.10	(0.00, 0.00)	0.02	0.11	(0.00, 0.00)
SM	0.30	0.06	(0.00, 0.00)	0.27	0.04	(0.00, 0.00)
Mean	0.21	0.08	(0.00, 0.00)	0.19	0.08	(0.00, 0.00)

**Panel I: Overall**

SV	Mean <sub>HXZ</sub>	NSE <sub>HXZ</sub>	Left-right <sub>HXZ</sub>	Mean <sub>SVV</sub>	NSE <sub>SVV</sub>	Left-right <sub>SVV</sub>
All	0.24	0.14	(0.01, 0.01)	0.23	0.13	(0.01, 0.01)
Orig. Sig.	0.25	0.14	(0.01, 0.02)	0.24	0.14	(0.01, 0.02)
Orig. Insig.	0.17	0.08	(0.00, 0.00)	0.17	0.08	(0.00, 0.00)

**Figure VIII.1: Methodology-induced variation conditional on fixing size-related forks.**

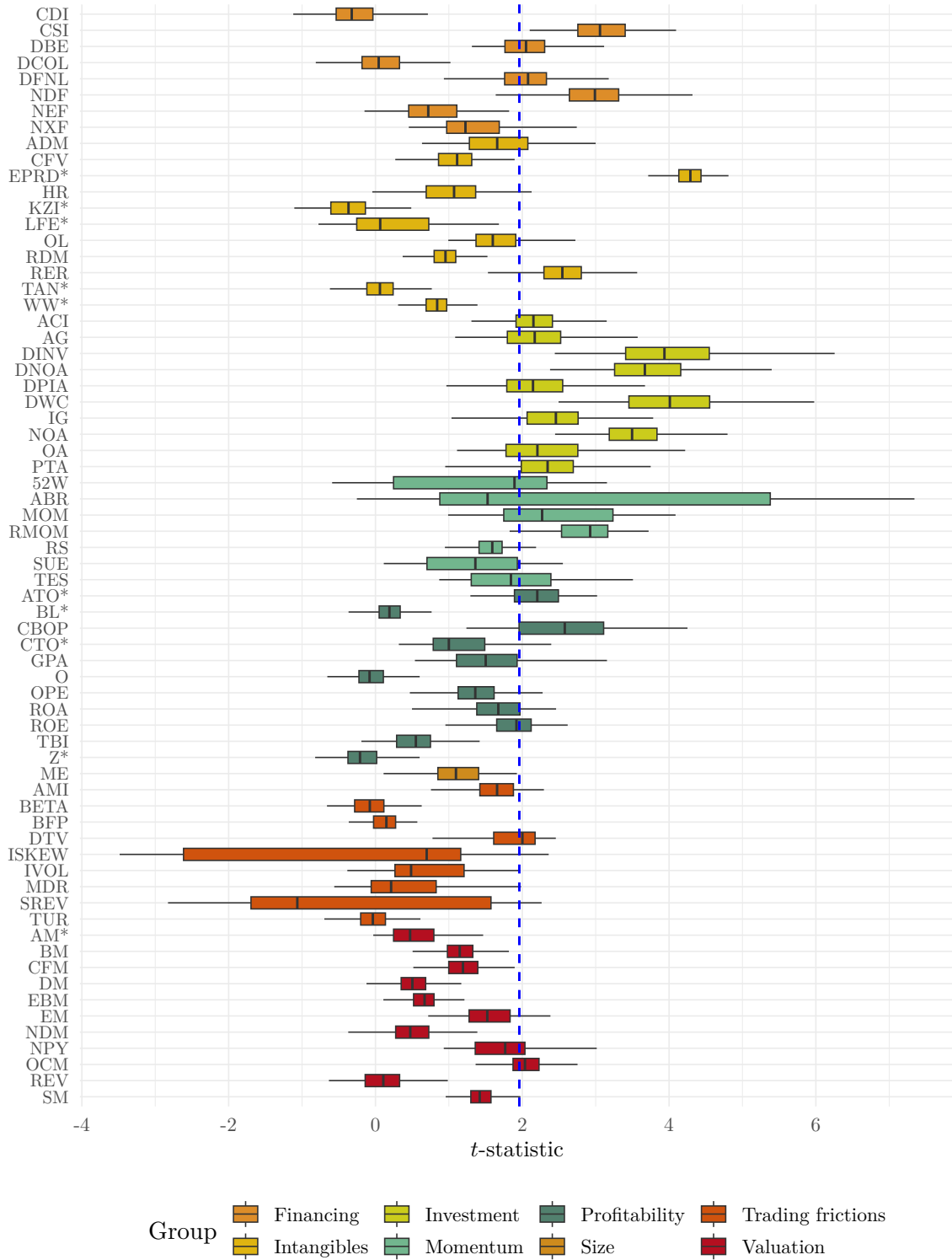
This figure shows the estimated premia (in %) in box plots for all sorting variables conditional on deciles, NYSE breakpoints, and value-weighted returns from single sorts. The boxes cover the interquartile range and thus correspond to the definition of non-standard errors from Equation (2). Moreover, the lines at the ends of each box indicate the maximum and minimum premium of each distribution. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group.





**Figure VIII.2: Variation in  $t$ -statistics conditional on fixing size-related forks.**

This figure shows the estimated  $t$ -statistics in box plots for all sorting variables conditional on deciles, NYSE breakpoints, and value-weighted returns from single sorts. The vertical axis shows the associated sorting variable, while the color scheme connects each sorting variable to the respective group. A  $t$ -value of 1.96 is indicated by the vertical dashed line.



**Table VIII.2: Methodology-induced variation conditional on fixing model-specific choices.**

This table shows summary statistics across paths for all 68 sorting variables. Whenever the paper that first recorded the premium provides an economic rationale for taking a specific choice that builds upon the paper’s proposed economic mechanism, we keep the respective choice constant in line with the original paper’s choice. For instance, Xing (2008) notes that Q-theory might not apply to financial firms and therefore excludes these stocks when sorting portfolios based on the sorting variable “asset growth” (AG). We group sorting variables into panels that contain the mean (Mean, in %), skewness (Skew.), and kurtosis (Kurt.) of the premia across all paths. Furthermore, they contain the non-standard error (NSE, in %) and the relative number of significant deviations to the left and right of the median using a 5% significance level (Left-right). The table also shows the ratio of the dispersion of premia relative to the average time-series standard error (Ratio). Columns Pos. and Sig. show the relative number of positive premia and  $t$ -statistics larger than 1.96. The last column (Mon.) shows the fraction of monotonically increasing portfolio sorts following the test of Patton and Timmermann (2010) that evaluates monotonicity based on all possible matched paths at a 10% significance level. Finally, the overall means of the statistics across all sorting variables are reported in the last panel. An asterisk (\*) next to the name of the sorting variable (SV) indicates that it is not significantly related to the cross-section of stock returns in the original reference paper. All statistics correspond to equally weighted paths except for  $NSE_w$  which denotes the non-standard errors of premia that are weighted by the frequency with which choices were made in published articles.

**Panel A: Financing**

SV	Mean	NSE	$NSE_w$	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
CDI	0.12	0.10	0.19	(0.01, 0.05)	1.13	0.07	5.01	0.93	0.41	0.62
CSI	0.46	0.19	0.19	(0.00, 0.01)	0.89	0.56	3.04	1.00	0.99	0.53
DBE	0.40	0.21	0.33	(0.00, 0.06)	1.12	0.93	3.77	1.00	0.85	0.36
DCOL	0.16	0.16	0.31	(0.00, 0.09)	1.28	1.13	4.92	0.92	0.29	0.06
DFNL	0.31	0.17	0.24	(0.01, 0.14)	1.49	0.82	3.41	1.00	0.94	0.49
NDF	0.30	0.14	0.18	(0.04, 0.10)	1.38	0.81	3.67	1.00	0.99	0.82
NEF	0.31	0.18	0.28	(0.00, 0.03)	1.00	0.84	3.98	0.99	0.50	0.35
NXF	0.44	0.21	0.33	(0.02, 0.06)	1.22	0.82	3.81	1.00	0.90	0.58
Mean	0.31	0.17	0.26	(0.01, 0.07)	1.19	0.75	3.95	0.98	0.73	0.47

**Panel B: Intangibles**

SV	Mean	NSE	$NSE_w$	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ADM	0.27	0.12	0.15	(0.00, 0.00)	0.54	0.72	3.46	1.00	0.20	0.40
CFV	0.31	0.16	0.19	(0.00, 0.00)	0.63	0.77	3.88	1.00	0.23	0.46
EPRD*	0.77	0.27	0.30	(0.02, 0.02)	1.05	0.42	2.40	1.00	1.00	0.93
HR	0.27	0.17	0.30	(0.02, 0.08)	1.25	0.74	4.34	0.99	0.65	0.32
KZI*	-0.01	0.09	0.10	(0.00, 0.00)	0.55	-0.14	4.99	0.46	0.00	0.02
LFE*	-0.04	0.07	0.08	(0.00, 0.00)	0.78	0.96	6.27	0.18	0.00	0.00
OL	0.28	0.11	0.14	(0.00, 0.00)	0.63	0.91	3.64	1.00	0.45	0.63
RDM	0.32	0.11	0.26	(0.00, 0.00)	0.61	1.51	7.44	1.00	0.25	0.02
RER	0.16	0.06	0.06	(0.00, 0.01)	0.84	0.96	4.11	1.00	0.83	0.52
TAN*	0.15	0.08	0.24	(0.00, 0.01)	0.71	0.63	5.50	0.95	0.11	0.46
WW*	-0.05	0.21	0.34	(0.01, 0.01)	0.79	-0.65	5.33	0.39	0.00	0.03
Mean	0.22	0.13	0.20	(0.00, 0.01)	0.76	0.62	4.67	0.82	0.34	0.35

**Panel C: Investment**

SV	Mean	NSE	$NSE_w$	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ACI	0.24	0.11	0.13	(0.04, 0.03)	0.98	0.43	2.84	1.00	0.94	0.65
AG	0.46	0.26	0.41	(0.03, 0.11)	1.48	1.00	4.24	1.00	0.90	0.59
DINV	0.40	0.22	0.25	(0.08, 0.16)	1.68	0.84	3.26	1.00	1.00	0.84
DNOA	0.59	0.22	0.31	(0.05, 0.13)	1.57	1.03	4.12	1.00	1.00	0.89
DPIA	0.48	0.23	0.35	(0.08, 0.12)	1.58	0.84	3.96	1.00	0.95	0.73
DWC	0.44	0.22	0.20	(0.15, 0.13)	1.73	0.57	2.94	1.00	1.00	0.68
IG	0.34	0.15	0.21	(0.02, 0.05)	1.19	0.87	4.04	1.00	0.96	0.82
NOA	0.51	0.18	0.24	(0.05, 0.03)	1.14	0.75	3.78	1.00	1.00	0.57

*Continued on next page*

**Table VIII.2: Methodology-induced variation conditional on fixing model-specific choices.**

OA	0.37	0.18	0.15	(0.01, 0.13)	1.39	0.85	3.52	1.00	0.90	0.46
PTA	0.30	0.15	0.18	(0.04, 0.04)	1.11	0.31	2.61	1.00	0.91	0.68
Mean	0.41	0.19	0.24	(0.05, 0.09)	1.38	0.75	3.53	1.00	0.96	0.69
<b>Panel D: Momentum</b>										
SV	Mean	NSE	NSE <sub>w</sub>	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
52W	0.44	0.50	0.46	(0.16, 0.03)	1.43	-0.32	2.59	0.88	0.62	0.48
ABR	0.57	0.61	0.84	(0.19, 0.36)	4.02	0.99	2.74	0.99	0.92	0.73
MOM	0.56	0.43	0.46	(0.03, 0.06)	1.30	0.45	2.70	0.99	0.64	0.70
RMOM	0.42	0.25	0.20	(0.10, 0.02)	1.20	0.06	2.39	1.00	0.80	0.66
RS	0.37	0.21	0.30	(0.02, 0.11)	1.48	1.13	4.56	1.00	0.86	0.69
SUE	0.47	0.36	0.62	(0.14, 0.22)	2.56	1.25	4.59	1.00	0.86	0.90
TES	0.43	0.30	0.47	(0.10, 0.19)	2.20	1.17	4.01	1.00	0.95	0.73
Mean	0.47	0.38	0.48	(0.11, 0.14)	2.03	0.68	3.37	0.98	0.81	0.70
<b>Panel E: Profitability</b>										
SV	Mean	NSE	NSE <sub>w</sub>	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ATO*	0.21	0.15	0.16	(0.00, 0.01)	0.79	0.56	3.07	0.99	0.24	0.23
BL*	-0.04	0.08	0.12	(0.00, 0.00)	0.40	0.10	3.48	0.23	0.00	0.00
CBOP	0.59	0.24	0.28	(0.04, 0.11)	1.49	0.78	3.86	1.00	0.97	0.99
CTO*	0.12	0.10	0.10	(0.00, 0.00)	0.58	0.73	3.86	0.96	0.03	0.07
GPA	0.33	0.19	0.20	(0.00, 0.03)	0.94	0.72	3.04	1.00	0.61	0.75
O	0.04	0.09	0.11	(0.00, 0.00)	0.49	0.36	3.71	0.75	0.00	0.00
OPE	0.32	0.14	0.18	(0.02, 0.00)	0.77	0.71	4.58	1.00	0.73	0.64
ROA	0.46	0.28	0.39	(0.04, 0.11)	1.48	1.11	4.27	1.00	0.82	0.71
ROE	0.49	0.26	0.38	(0.06, 0.11)	1.55	1.20	4.62	1.00	0.91	0.84
TBI	-0.10	0.26	0.30	(0.00, 0.03)	0.93	0.15	3.49	0.30	0.01	0.02
Z*	0.07	0.11	0.20	(0.00, 0.01)	0.61	1.41	6.32	0.75	0.01	0.00
Mean	0.23	0.17	0.22	(0.02, 0.04)	0.91	0.71	4.03	0.82	0.39	0.39
<b>Panel F: Size</b>										
SV	Mean	NSE	NSE <sub>w</sub>	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
ME	0.09	0.25	0.39	(0.11, 0.05)	1.51	0.92	9.08	0.70	0.09	0.15
<b>Panel G: Trading frictions</b>										
SV	Mean	NSE	NSE <sub>w</sub>	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
AMI	0.15	0.18	0.23	(0.00, 0.03)	1.03	0.83	8.62	0.86	0.17	0.23
BETA	0.01	0.09	0.09	(0.00, 0.00)	0.27	0.05	2.93	0.55	0.00	0.00
BFP	0.11	0.10	0.12	(0.00, 0.00)	0.27	0.15	3.49	0.94	0.00	0.00
DTV	0.29	0.16	0.24	(0.00, 0.02)	0.80	1.10	7.01	0.98	0.32	0.33
ISKEW	-0.02	0.12	0.24	(0.15, 0.04)	1.45	-0.07	3.65	0.48	0.04	0.16
IVOL	0.29	0.21	0.36	(0.00, 0.03)	0.88	0.86	5.06	0.97	0.20	0.02
MDR	0.22	0.30	0.40	(0.00, 0.12)	1.13	1.04	3.83	0.92	0.24	0.08
SREV	0.04	0.97	1.22	(0.06, 0.33)	3.89	1.06	3.25	0.33	0.31	0.30
TUR	0.22	0.16	0.34	(0.00, 0.02)	0.69	0.80	5.13	0.94	0.08	0.07
Mean	0.15	0.25	0.36	(0.02, 0.07)	1.16	0.65	4.78	0.78	0.15	0.13
<b>Panel H: Valuation</b>										
SV	Mean	NSE	NSE <sub>w</sub>	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
AM*	0.23	0.16	0.31	(0.00, 0.01)	0.66	1.29	5.09	1.00	0.08	0.14
BM	0.33	0.19	0.39	(0.00, 0.04)	0.87	1.39	5.58	1.00	0.30	0.50
CFM	0.38	0.16	0.22	(0.00, 0.01)	0.66	0.84	3.77	1.00	0.54	0.83
DM	0.11	0.10	0.13	(0.00, 0.00)	0.42	0.59	3.35	0.95	0.00	0.06
EBM	0.22	0.13	0.27	(0.00, 0.01)	0.61	1.47	6.75	0.99	0.08	0.50
EM	0.36	0.10	0.12	(0.00, 0.01)	0.53	1.01	4.72	1.00	0.73	0.74

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**Table VIII.2: Methodology-induced variation conditional on fixing model-specific choices.**

NDM	0.07	0.08	0.12	(0.00, 0.00)	0.44	0.67	4.19	0.87	0.00	0.10
NPY	0.25	0.07	0.08	(0.00, 0.00)	0.43	0.47	3.58	1.00	0.64	0.74
OCM	0.42	0.14	0.16	(0.00, 0.00)	0.59	0.51	3.19	1.00	0.78	0.69
REV	0.18	0.13	0.26	(0.00, 0.02)	0.76	1.46	7.34	0.98	0.13	0.43
SM	0.41	0.18	0.34	(0.00, 0.01)	0.75	1.24	4.63	1.00	0.49	0.89
Mean	0.27	0.13	0.22	(0.00, 0.01)	0.61	1.00	4.75	0.98	0.34	0.51
<b>Panel I: Overall</b>										
SV	Mean	NSE	NSE <sub>w</sub>	Left-right	Ratio	Skew.	Kurt.	Pos.	Sig.	Mon.
All	0.28	0.20	0.27	(0.03, 0.06)	1.10	0.74	4.27	0.90	0.51	0.45
Orig. Sig.	0.31	0.21	0.28	(0.03, 0.06)	1.17	0.78	4.21	0.93	0.57	0.50
Orig. Insig.	0.14	0.13	0.20	(0.00, 0.01)	0.69	0.53	4.63	0.69	0.15	0.19

## IX Impact of decision forks: Factor alphas

In Tables IX.1 to IX.3, we present the impact of decision forks on CAPM-adjusted, Fama and French (2015)-adjusted (FF5), and Hou et al. (2021)-adjusted (Q5) premia in terms of mean absolute differences and correlations.

**Table IX.1: CAPM-adjusted returns: Mean absolute differences and correlations.**

This table shows mean absolute differences (Panel A, in %) and correlations (Panel B) of the CAPM-adjusted time series of return differentials across decision forks. For each decision fork, we compare time-series pairs that differ only in the specific fork. Then, we take the mean for each fork-sorting variable combination. The two panels show means across all categories (All) and individual categories separately. By construction, some entries do not produce variation and are left empty.

**Panel A: Mean absolute differences**

Fork	All	Fin.	Int.	Inv.	Mom.	Pro.	Siz.	Tra.	Val.
BP: Quantiles (main)	1.06	0.90	1.11	0.95	1.03	1.08	1.38	1.30	1.01
Weighting scheme	0.98	0.95	1.03	0.95	0.99	0.99	0.62	0.91	1.05
Negative earnings	0.94	0.82	0.96	0.82	0.77	1.23	1.31	1.04	0.84
Size exclusion	0.85	0.67	0.85	0.69	0.78	0.89	1.93	1.14	0.79
Sorting variable lag	0.84	0.56	0.53	0.64	1.68	0.64	1.84	1.52	0.57
BP: Exchanges	0.82	0.68	0.84	0.66	0.65	0.87	1.53	1.11	0.77
Financials	0.74	0.46	0.75	0.56	0.60	1.06	0.77	0.75	0.86
Double sort	0.69	0.42	0.66	0.45	0.51	0.73	2.85	1.30	0.52
BP: Quantiles (second)	0.68	0.53	0.68	0.53	0.59	0.70	1.82	1.04	0.60
Rebalancing	0.59	0.59	0.59	0.63		0.60			0.55
Utilities	0.49	0.37	0.37	0.33	0.42	0.67	0.60	0.65	0.55
Stock-age exclusion	0.43	0.46	0.40	0.43	0.33	0.48	0.66	0.52	0.35
Price exclusion	0.35	0.29	0.36	0.30	0.30	0.38	0.70	0.44	0.32
Negative book equity	0.22	0.20	0.23	0.19	0.18	0.27	0.30	0.23	0.21

**Panel B: Correlations**

Fork	All	Fin.	Int.	Inv.	Mom.	Pro.	Siz.	Tra.	Val.
Weighting scheme	0.87	0.81	0.85	0.81	0.88	0.89	0.97	0.92	0.90
Negative earnings	0.88	0.86	0.88	0.84	0.93	0.81	0.84	0.91	0.94
Sorting variable lag	0.88	0.92	0.95	0.90	0.71	0.95	0.63	0.74	0.96
BP: Quantiles (main)	0.90	0.87	0.88	0.86	0.92	0.92	0.87	0.90	0.94
Size exclusion	0.91	0.90	0.91	0.90	0.93	0.92	0.74	0.90	0.95
Financials	0.92	0.95	0.91	0.93	0.96	0.85	0.93	0.95	0.93
Rebalancing	0.92	0.89	0.93	0.89		0.95			0.96
BP: Exchanges	0.93	0.92	0.92	0.92	0.95	0.93	0.81	0.91	0.96
BP: Quantiles (second)	0.94	0.93	0.94	0.94	0.95	0.95	0.72	0.91	0.97
Double sort	0.94	0.96	0.94	0.95	0.97	0.94	0.63	0.87	0.98
Utilities	0.97	0.97	0.98	0.98	0.98	0.94	0.95	0.97	0.97
Stock-age exclusion	0.97	0.95	0.97	0.96	0.98	0.97	0.94	0.97	0.99
Price exclusion	0.98	0.97	0.97	0.97	0.98	0.98	0.94	0.97	0.98
Negative book equity	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.99	1.00

**Table IX.2: FF5-adjusted returns: Mean absolute differences and correlations.**

This table shows mean absolute differences (Panel A, in %) and correlations (Panel B) of the Fama and French (2015)-adjusted time series of return differentials across decision forks. For each decision fork, we compare time-series pairs that differ only in the specific fork. Then, we take the mean for each fork-sorting variable combination. The two panels show means across all categories (All) and individual categories separately. By construction, some entries do not produce variation and are left empty.

**Panel A: Mean absolute differences**

Fork	All	Fin.	Int.	Inv.	Mom.	Pro.	Siz.	Tra.	Val.
BP: Quantiles (main)	1.02	0.87	1.07	0.93	1.01	1.02	1.33	1.25	0.93
Weighting scheme	0.95	0.93	1.01	0.93	0.99	0.95	0.57	0.89	1.00
Negative earnings	0.87	0.75	0.90	0.77	0.74	1.04	1.30	0.97	0.80
Sorting variable lag	0.84	0.56	0.53	0.63	1.67	0.64	1.86	1.52	0.57
Size exclusion	0.83	0.66	0.83	0.68	0.76	0.86	1.92	1.12	0.77
BP: Exchanges	0.79	0.65	0.82	0.65	0.64	0.83	1.53	1.08	0.72
Financials	0.71	0.45	0.71	0.52	0.60	0.98	0.77	0.74	0.84
Double sort	0.67	0.42	0.65	0.45	0.51	0.72	2.16	1.27	0.51
BP: Quantiles (second)	0.66	0.52	0.66	0.52	0.58	0.65	1.70	0.98	0.57
Rebalancing	0.60	0.60	0.60	0.64		0.61			0.56
Utilities	0.48	0.37	0.37	0.33	0.42	0.65	0.60	0.63	0.54
Stock-age exclusion	0.42	0.43	0.39	0.42	0.33	0.47	0.66	0.52	0.34
Price exclusion	0.34	0.29	0.36	0.29	0.30	0.37	0.70	0.44	0.32
Negative book equity	0.22	0.20	0.23	0.19	0.18	0.27	0.31	0.23	0.21

**Panel B: Correlations**

Fork	All	Fin.	Int.	Inv.	Mom.	Pro.	Siz.	Tra.	Val.
Weighting scheme	0.80	0.72	0.80	0.75	0.86	0.81	0.92	0.88	0.77
Sorting variable lag	0.84	0.88	0.93	0.86	0.68	0.91	0.38	0.68	0.91
Negative earnings	0.84	0.81	0.85	0.81	0.92	0.79	0.73	0.89	0.85
BP: Quantiles (main)	0.85	0.81	0.85	0.82	0.91	0.87	0.78	0.88	0.86
Size exclusion	0.86	0.85	0.87	0.86	0.92	0.86	0.48	0.85	0.86
Rebalancing	0.88	0.84	0.90	0.84		0.91			0.89
Financials	0.89	0.93	0.90	0.92	0.95	0.80	0.88	0.94	0.83
BP: Exchanges	0.89	0.87	0.89	0.88	0.95	0.89	0.69	0.88	0.89
Double sort	0.91	0.94	0.92	0.94	0.96	0.91	0.43	0.85	0.94
BP: Quantiles (second)	0.91	0.90	0.92	0.91	0.95	0.92	0.64	0.91	0.92
Utilities	0.95	0.95	0.96	0.97	0.97	0.91	0.91	0.96	0.93
Stock-age exclusion	0.96	0.93	0.97	0.94	0.98	0.96	0.90	0.96	0.97
Price exclusion	0.96	0.96	0.96	0.96	0.98	0.96	0.90	0.97	0.96
Negative book equity	0.99	0.98	0.99	0.99	0.99	0.98	0.97	0.99	0.99

**Table IX.3: Q5-adjusted returns: Mean absolute differences and correlations.**

This table shows mean absolute differences (Panel A, in %) and correlations (Panel B) of the Hou et al. (2021)-adjusted time series of return differentials across decision forks. For each decision fork, we compare time-series pairs that differ only in the specific fork. Then, we take the mean for each fork-sorting variable combination. The two panels show means across all categories (All) and individual categories separately. By construction, some entries do not produce variation and are left empty.

**Panel A: Mean absolute differences**

Fork	All	Fin.	Int.	Inv.	Mom.	Pro.	Siz.	Tra.	Val.
BP: Quantiles (main)	1.03	0.88	1.08	0.93	0.99	1.04	1.34	1.26	0.97
Weighting scheme	0.96	0.94	1.02	0.93	0.99	0.96	0.57	0.88	1.01
Negative earnings	0.92	0.79	0.93	0.79	0.76	1.17	1.32	1.02	0.83
Sorting variable lag	0.84	0.56	0.53	0.63	1.66	0.63	1.85	1.52	0.57
Size exclusion	0.83	0.66	0.84	0.68	0.76	0.87	1.92	1.12	0.78
BP: Exchanges	0.80	0.66	0.83	0.65	0.65	0.86	1.54	1.09	0.74
Financials	0.73	0.46	0.74	0.54	0.60	1.03	0.77	0.75	0.85
Double sort	0.67	0.42	0.65	0.45	0.51	0.72	2.18	1.27	0.51
BP: Quantiles (second)	0.66	0.52	0.66	0.52	0.58	0.66	1.70	0.98	0.58
Rebalancing	0.60	0.60	0.60	0.63		0.61			0.56
Utilities	0.48	0.37	0.37	0.33	0.42	0.65	0.60	0.64	0.54
Stock-age exclusion	0.43	0.45	0.40	0.43	0.33	0.48	0.67	0.53	0.34
Price exclusion	0.35	0.29	0.36	0.29	0.30	0.37	0.70	0.44	0.32
Negative book equity	0.22	0.20	0.23	0.19	0.18	0.27	0.31	0.23	0.21

**Panel B: Correlations**

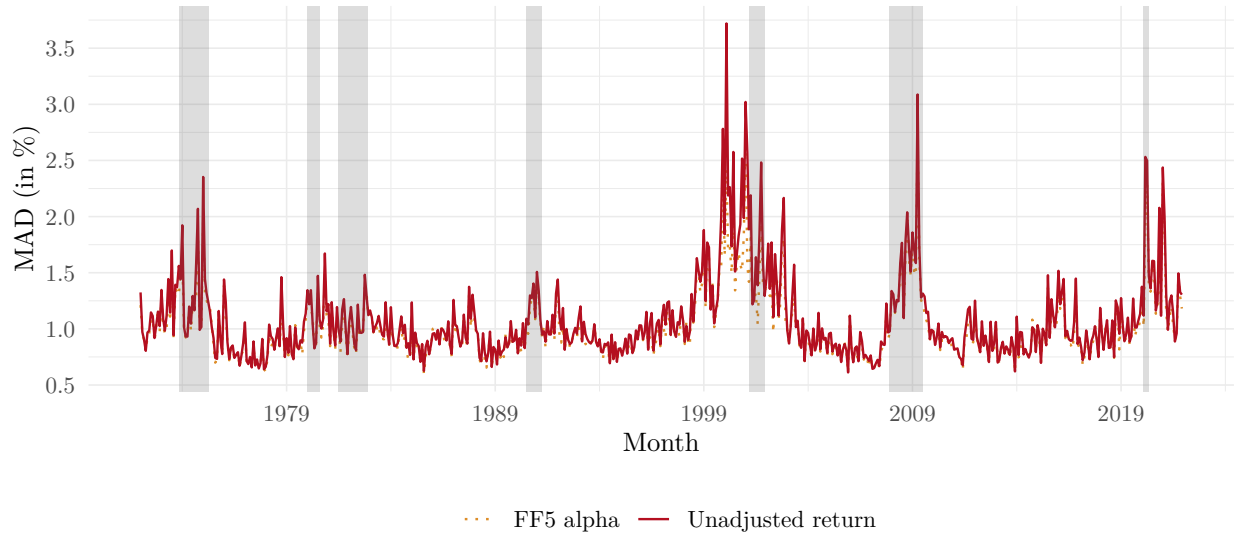
Fork	All	Fin.	Int.	Inv.	Mom.	Pro.	Siz.	Tra.	Val.
Weighting scheme	0.82	0.74	0.81	0.75	0.84	0.84	0.93	0.89	0.86
Negative earnings	0.84	0.81	0.86	0.80	0.90	0.75	0.72	0.89	0.92
Sorting variable lag	0.84	0.89	0.94	0.86	0.62	0.91	0.40	0.69	0.95
BP: Quantiles (main)	0.87	0.83	0.86	0.82	0.89	0.88	0.80	0.88	0.92
Size exclusion	0.88	0.86	0.89	0.86	0.91	0.88	0.51	0.86	0.92
Rebalancing	0.90	0.85	0.91	0.84		0.93			0.95
Financials	0.90	0.94	0.90	0.91	0.94	0.82	0.89	0.94	0.91
BP: Exchanges	0.90	0.89	0.90	0.89	0.94	0.90	0.70	0.89	0.94
Double sort	0.92	0.95	0.93	0.94	0.96	0.92	0.45	0.85	0.96
BP: Quantiles (second)	0.92	0.91	0.93	0.91	0.94	0.93	0.64	0.91	0.95
Utilities	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.96	0.96
Stock-age exclusion	0.96	0.93	0.97	0.94	0.98	0.96	0.90	0.97	0.99
Price exclusion	0.97	0.96	0.97	0.96	0.98	0.97	0.90	0.97	0.98
Negative book equity	0.99	0.98	0.99	0.99	0.99	0.98	0.97	0.99	0.99

## X The time-series of mean absolute differences

In this section, we explore the time series of mean absolute differences from Equation (5) for all decision forks similar to Figure 5. The forks are arranged by the impact based on mean absolute differences

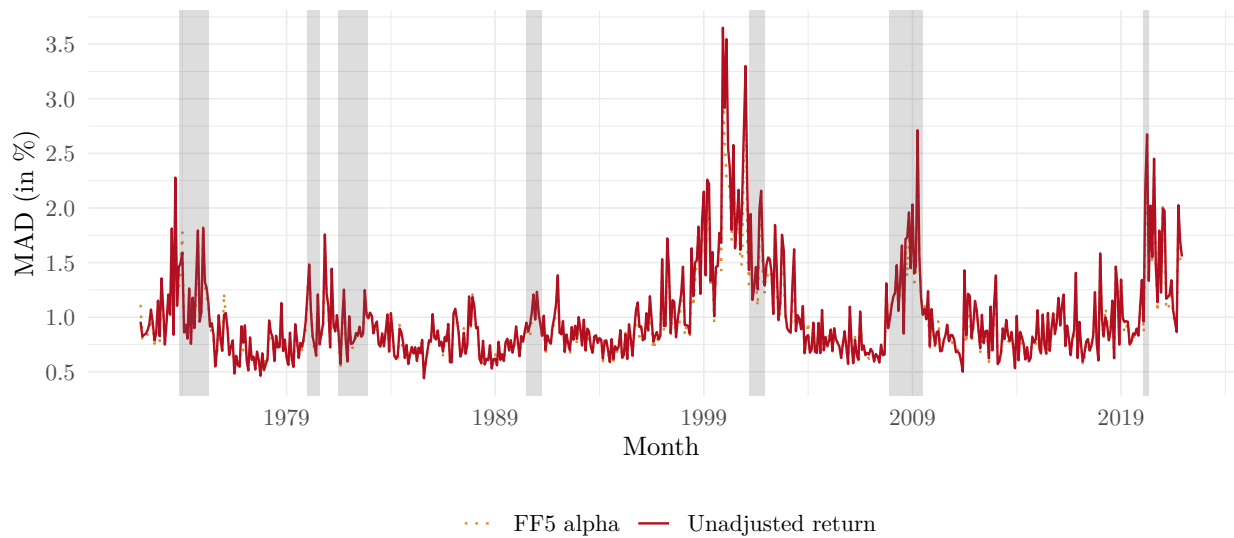
**Figure X.1: Mean absolute differences over time for the fork: Breakpoints: Quantiles (main).**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “breakpoints: quantiles (main)”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



**Figure X.2: Mean absolute differences over time for the fork: Weighting scheme.**

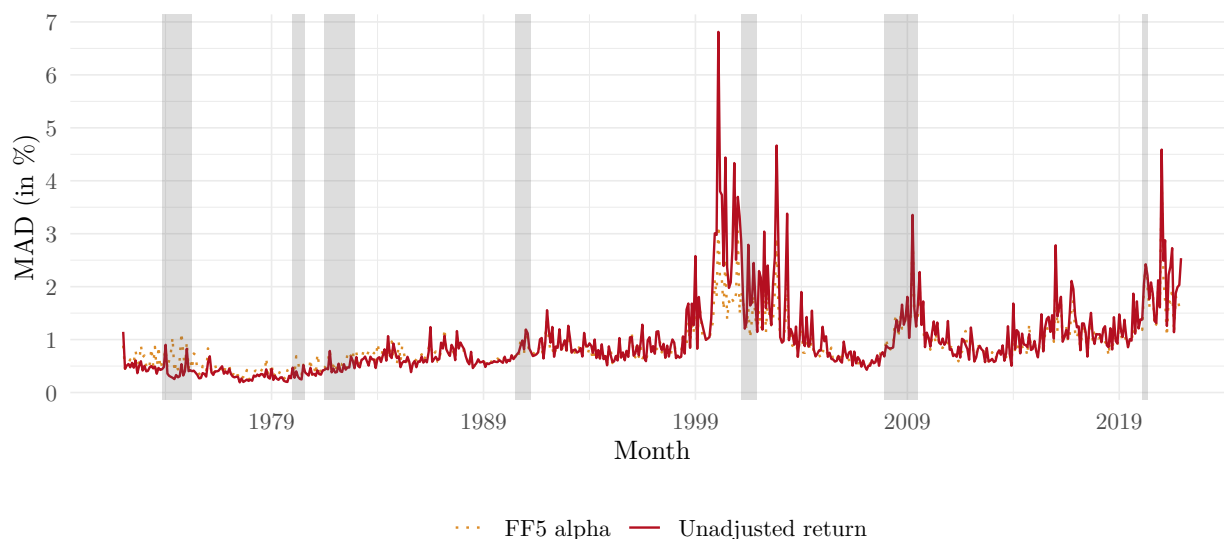
This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “weighting scheme”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.





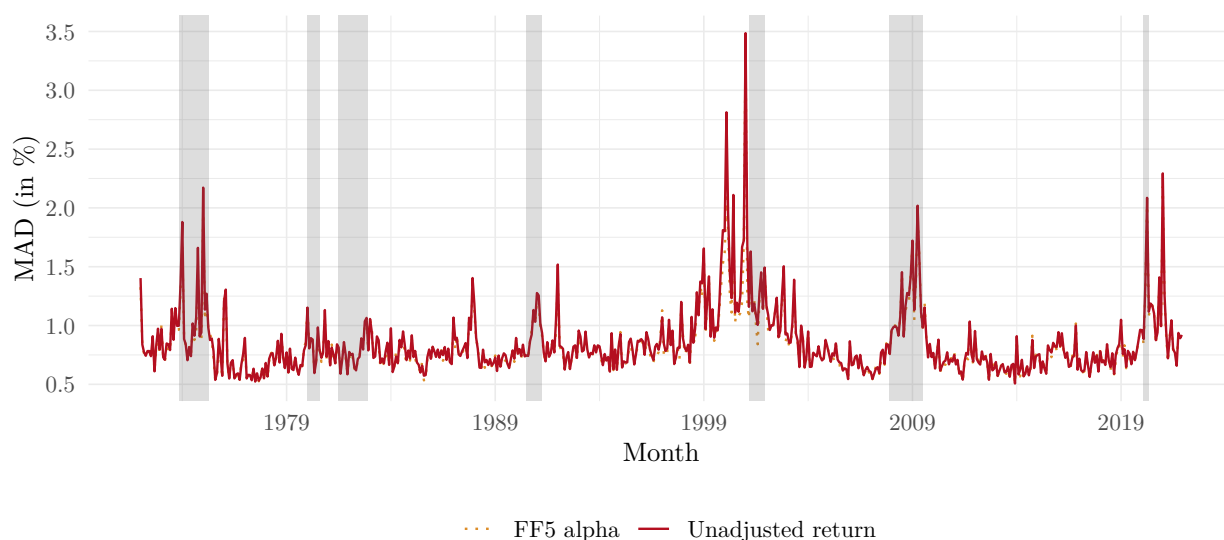
**Figure X.3: Mean absolute differences for the fork: Exclusion of negative earnings.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “exclusion of negative earnings”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



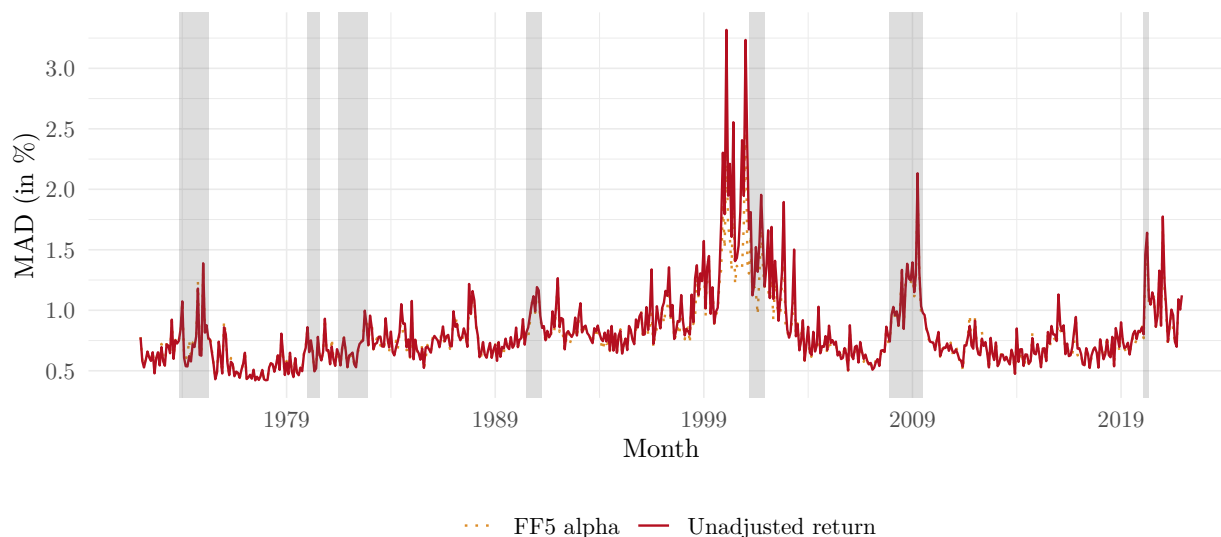
**Figure X.4: Mean absolute differences for the fork: Size exclusion.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “size exclusion”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



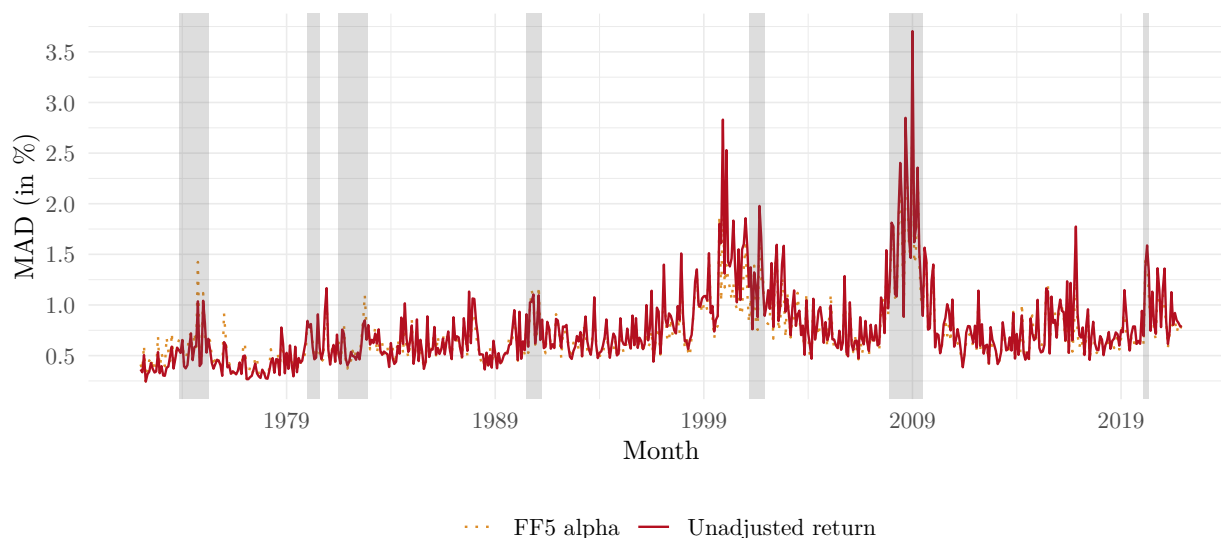
**Figure X.5: Mean absolute differences over time for the fork: Breakpoints: exchanges.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “breakpoints: exchanges”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



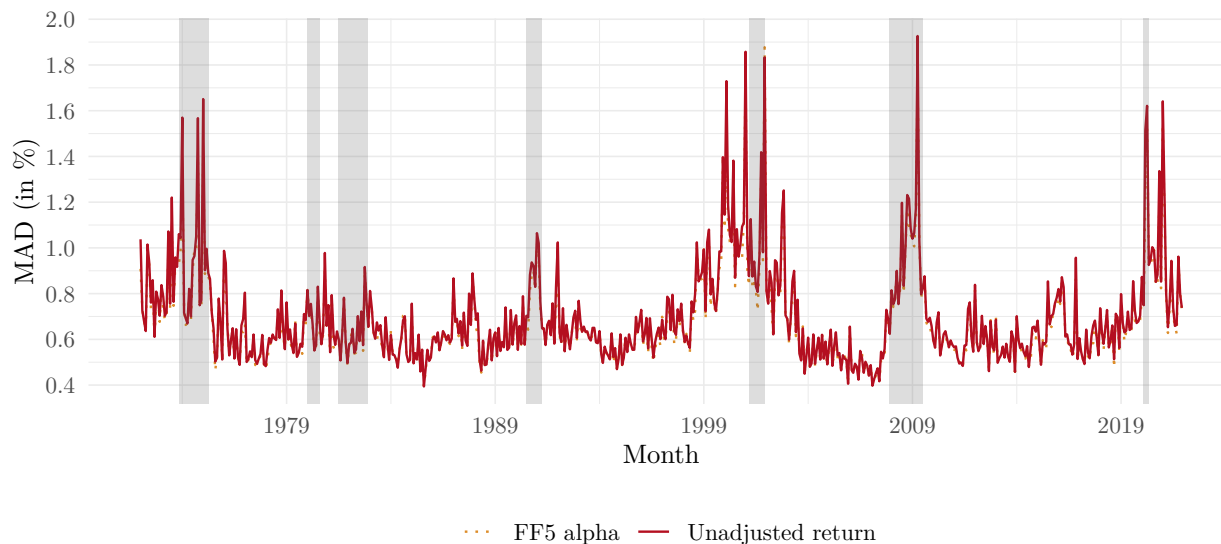
**Figure X.6: Mean absolute differences for the fork: Exclusion of financials.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “exclusion of financials”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



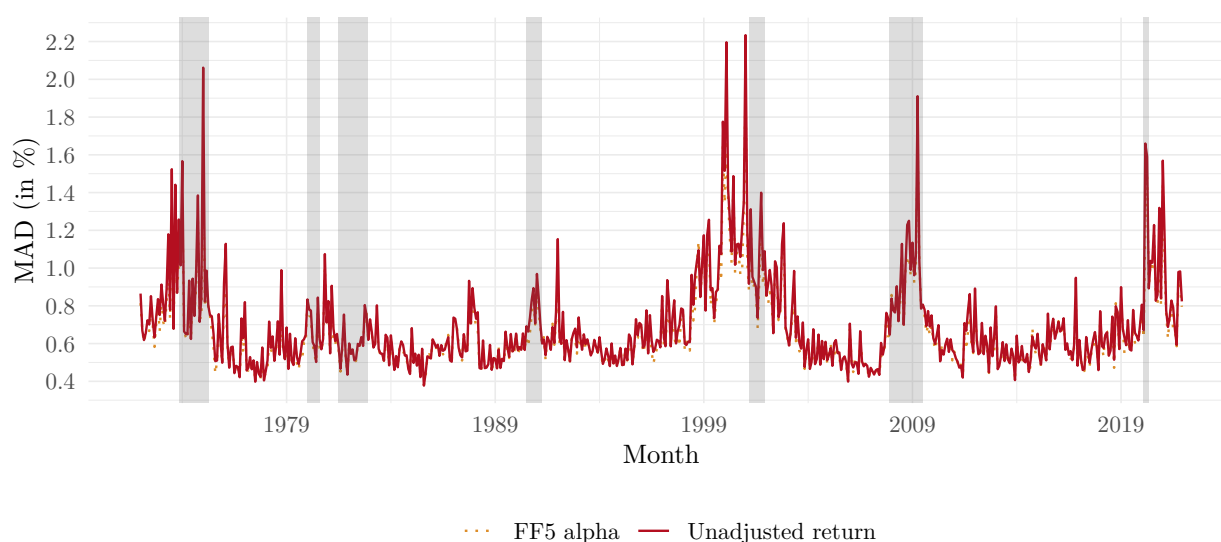
**Figure X.7: Mean absolute differences over time for the fork: Double sort.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “double sort”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



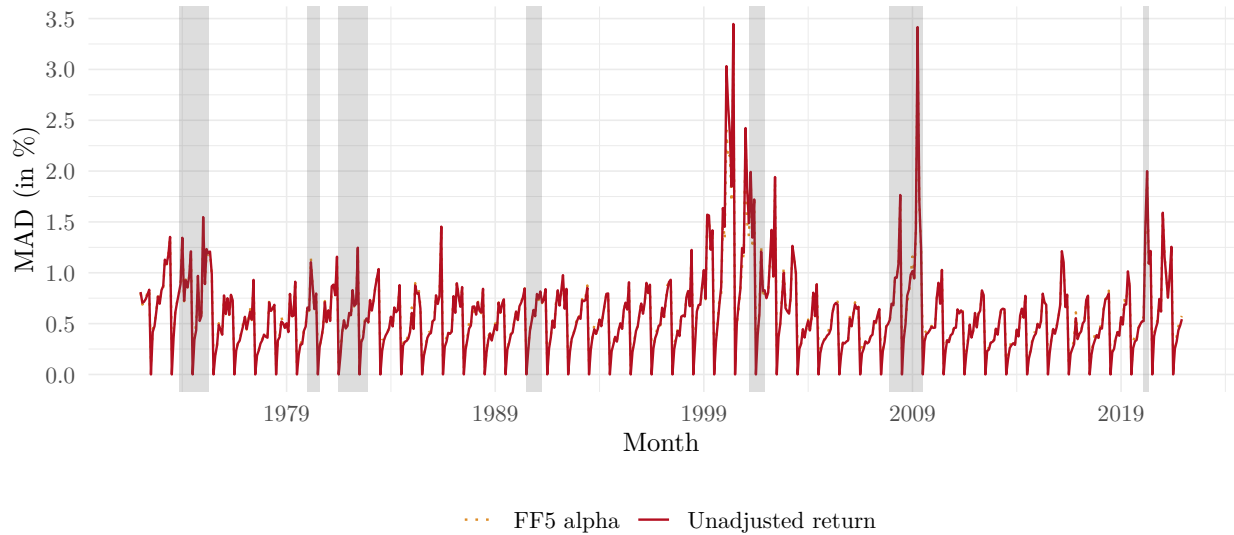
**Figure X.8: Mean absolute differences over time for the fork: Breakpoints: Quantiles (secondary).**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “breakpoints: quantiles (secondary)”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



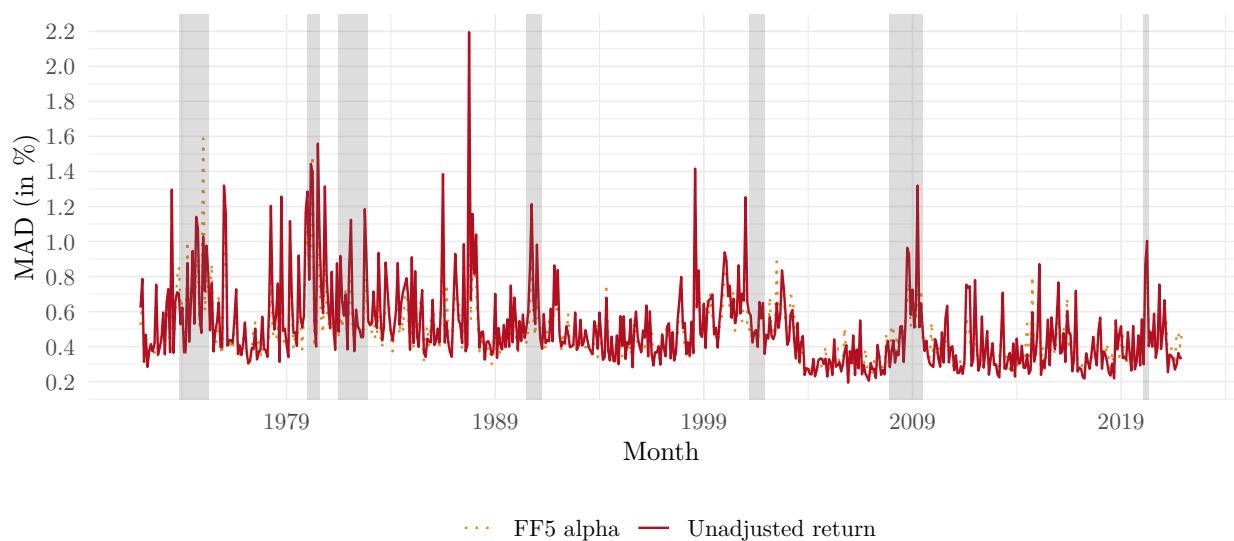
**Figure X.9: Mean absolute differences over time for the fork: Rebalancing.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “rebalancing”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



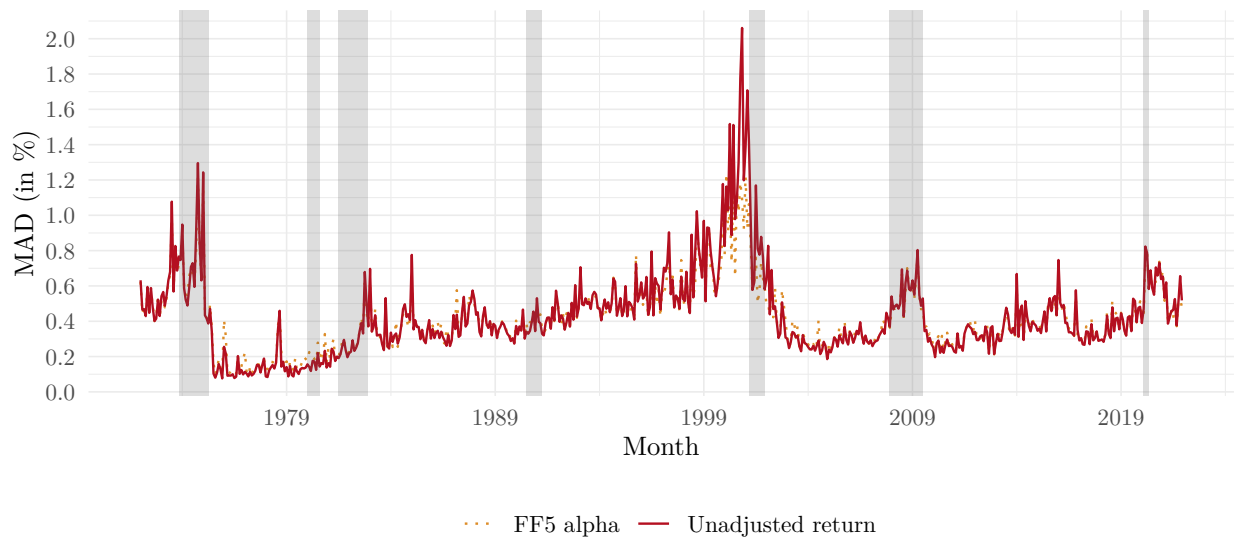
**Figure X.10: Mean absolute differences for the fork: Exclusion of utilities.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “exclusion of utilities”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



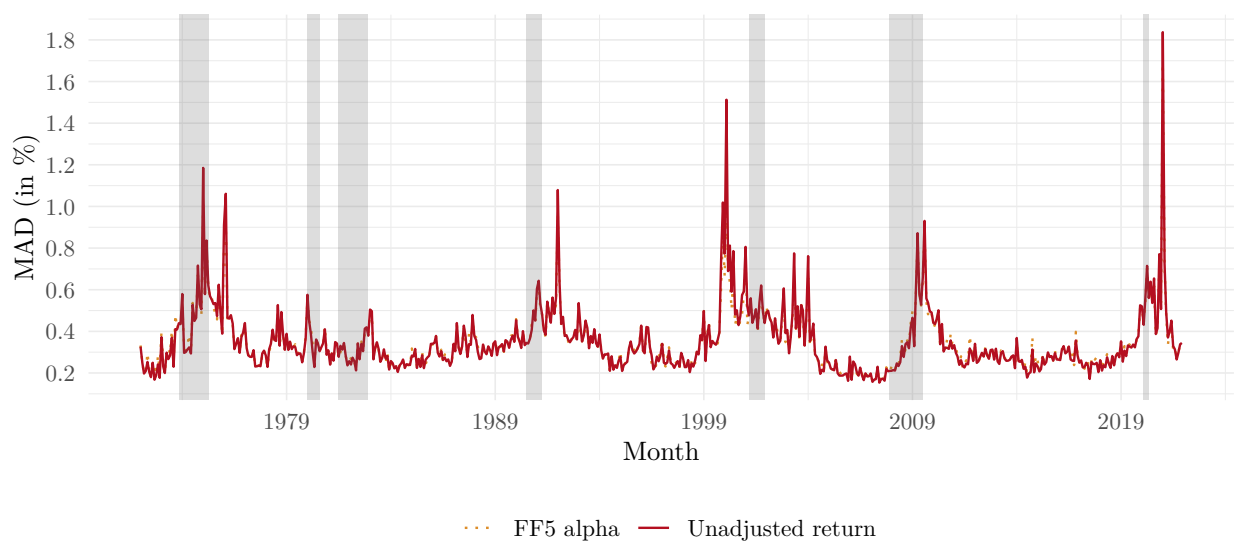
**Figure X.11: Mean absolute differences for the fork: Stock-age exclusion.**

This figure shows the time series of mean absolute differences (in %) for the fork “stock-age exclusion”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



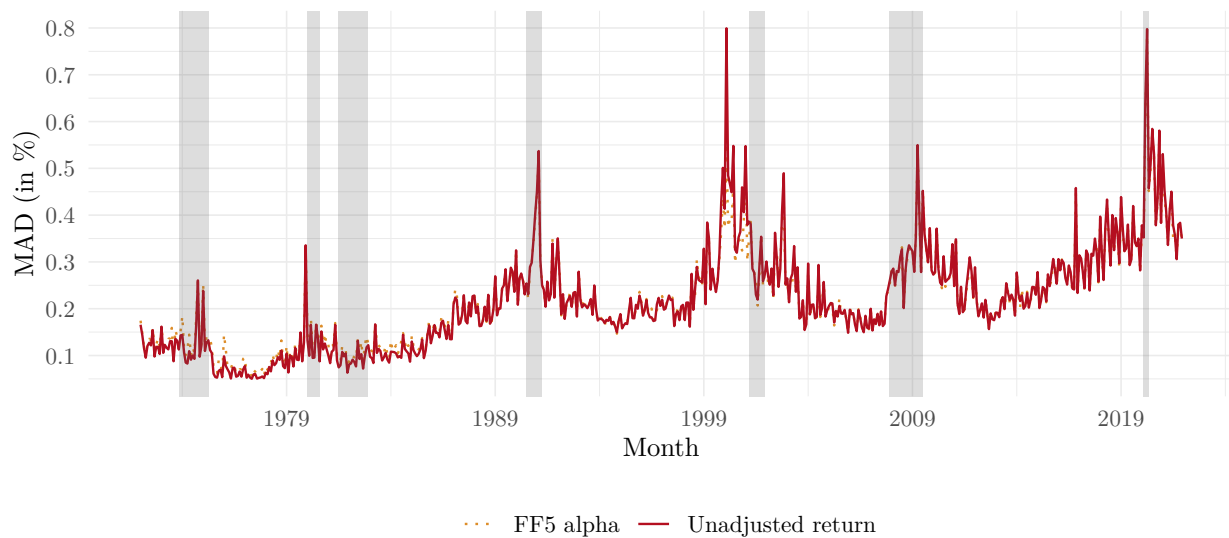
**Figure X.12: Mean absolute differences over time for the fork: Price exclusion.**

This figure shows the time series of mean absolute differences from Equation (5) (in %) for the fork “price exclusion”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



**Figure X.13: Mean absolute differences for the fork: Exclusion of negative book equity.**

This figure shows the time series of mean absolute differences (in %) for the fork “exclusion of negative book equity”. We plot the differences for unadjusted premia (solid line) and FF5 alphas (dotted line). Additionally, shaded areas indicate NBER recessions.



## XI Colophon

We use R (R Core Team, 2023) to generate this project’s results. We report the packages with their package version in Table XI.1. All packages are shared across co-authors, with results being finally produced on a single machine. Some scripts make use of a cluster (indicated in the replication code). Thus, we include package versions used by the cluster in a separate column. Note that the base R versions, indicated by the package *base*, differ between the local machine and the cluster.

**Table XI.1: Colophon.**

This table shows the R packages and their respective versions used throughout the project. Local packages' versions are in the second column. In the third column, we report the package version used on the cluster. Citations are provided in the last column.

Package	Local	Cluster	Citation
base	4.3.1	4.1.0	R Core Team (2023)
broom	1.0.5		Robinson et al. (2023)
car	3.1-2		Fox and Weisberg (2019)
corr	0.4.4	0.4.4	Kuhn et al. (2022)
datasets	4.3.1	4.1.0	R Core Team (2023)
DBI	1.1.3	1.1.3	R Special Interest Group on Databases (R-SIG-DB) et al. (2022)
dbplyr	2.3.4		Wickham et al. (2023b)
DescTools	0.99.50		Signorell (2023)
dplyr	1.1.3	1.1.0	Wickham et al. (2023a)
DT	0.30		Xie et al. (2023)
fixest	0.11.1		Bergé (2018)
forcats	1.0.0	1.0.0	Wickham (2023)
frenchdata	0.2.0		Areal (2021)
furrr	0.3.1		Vaughan and Dancho (2022)
ggplot2	3.4.4	3.4.1	Wickham (2016)
graphics	4.3.1	4.1.0	R Core Team (2023)
grDevices	4.3.1	4.1.0	R Core Team (2023)
gridExtra	2.3		Auguie (2017)
janitor	2.2.0		Firke (2023)
jsonlite	1.8.7		Ooms (2014)
knitr	1.44		Xie (2023)
kSamples	1.2-10		Scholz and Zhu (2023)
lmtest	0.9-40	0.9-40	Zeileis and Hothorn (2002)
lubridate	1.9.3	1.9.2	Grolemund and Wickham (2011)
methods	4.3.1	4.1.0	R Core Team (2023)
moments	0.14.1	0.14.1	Komsta and Novomestky (2022)
monotonicity	1.3.1	1.3.1	Köstlmeier (2019)
purrr	1.0.2	1.0.1	Wickham and Henry (2023)
readr	2.1.4	2.1.4	Wickham et al. (2023c)
readxl	1.4.3		Wickham and Bryan (2023)
renv	1.0.3		Ushey and Wickham (2023)
rmarkdown	2.25		Allaire et al. (2023)
RPostgres	1.4.5		Wickham et al. (2023d)
RSQLite	2.3.1	2.3.0	Müller et al. (2023)
sandwich	3.0-2	3.0-2	Zeileis et al. (2020)
scales	1.2.1		Wickham and Seidel (2022)
slider	0.3.0		Vaughan (2022)
stats	4.3.1	4.1.0	R Core Team (2023)
stringr	1.5.0	1.5.0	Wickham (2022)
tibble	3.2.1	3.1.8	Müller and Wickham (2023)
tidyr	1.3.0	1.3.0	Wickham et al. (2023e)
tidyverse	2.0.0	2.0.0	Wickham et al. (2019)
tikzDevice	0.12.5		Sharpsteen and Bracken (2023)
utils	4.3.1	4.1.0	R Core Team (2023)
wildrwolf	0.6.1		Fischer (2023)
xtable	1.8-4		Dahl et al. (2019)
zoo	1.8-12	1.8-11	Zeileis and Grothendieck (2005)