Asset Prices and Portfolio Adjustment under Supply Shocks

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Discussion

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Big Picture

- Many interesting questions in asset pricing are about **market macrostructure**
  - the broad organization of financial markets (Haddad and Muir, 2025)
  - how do changes in market structure affect asset prices?
- A compact way to say this:

$$\Delta p = \mathcal{M}\Delta q$$

  - Δq encodes the change to market structure
  - $\mathcal{M}$ encodes its impact
- This paper starts from a concrete corporate-finance question:
  - **what is the price impact of repurchases and issuances?**

HHHKL Framework

- Our paper separates the multiplier matrix into two pieces:

$$\mathcal{M} = \mathcal{M}_{\text{relative}} I + X \mathcal{M}_X X'$$

  - $\mathcal{M}_{\text{relative}}$: relative multiplier, comparing an asset to a close substitute
  - $X \mathcal{M}_X X'$: substitution/spillovers across observable portfolios

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- Cross-sectional designs identify $\mathcal{M}_{\text{relative}}$:

$$\mathcal{M}_{\text{relative}}(i, i') = \mathcal{M}_{ii} - \mathcal{M}_{i'i}$$

  - a near-arbitrage force: if Ford becomes cheap relative to GM, who swaps them?
- To move to own-price, we need the missing diagonal contribution from substitution

$$\mathcal{M}_{\text{own},ii} = \mathcal{M}_{\text{relative}} + X_i \mathcal{M}_X X_i'$$

  - this object matters here because firms choose the supply of their own shares
  - the paper argues this part is small because idiosyncratic risk is large relative to factor risk

What The Paper Does

- Experiment: the SEC Tick Size Pilot made realized repurchases harder for treated firms
  - wider ticks $+$ Rule 10b-18 $\Rightarrow$ lower fill rates for open-market repurchases
  - treatment firms repurchase 0.077 pp fewer shares per quarter, about 22% of the pre-period mean

What The Paper Does

- Experiment: the SEC Tick Size Pilot made realized repurchases harder for treated firms
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  - treatment firms repurchase 0.077 pp fewer shares per quarter, about 22% of the pre-period mean
- Headline estimate:

$$\Delta p_j = \mathcal{M}_{\text{relative}} \Delta s_j + \gamma' \Delta x_j + u_g + \varepsilon_j, \qquad \widehat{\mathcal{M}}_{\text{relative}} \approx 2.5$$

  - relative to the matched control firm, baseline estimate is 2.575; close to existing estimates
  - this is an eight-quarter horizon object; estimates are smaller at shorter horizons
  - a 1% uninformed repurchase shortfall lowers relative prices by about 2.6%
- Idiosyncratic risk $\gg$ factor risk $\Rightarrow \mathcal{M}_{\text{relative}} \approx \mathcal{M}_{\text{own}}$

Discussion Points

1. **Put the multiplier to work:** repurchases and issuances are questions, not just motivation
2. **Identification contribution:** conceptual point versus tight supply-side identification
3. **Horizon:** multipliers increasing with horizon is informative
4. **Matched controls:** close twins versus controlling for observables

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  - this is exactly the right corporate-finance motivation
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- My take:

$$\Delta q \text{ (question)} + \mathcal{M} \text{ (estimate)} \quad \Rightarrow \quad \text{counterfactual}$$

  - for a manager: repurchases, issuance, execution, payout policy
  - for asset pricing: relative trades, factors, and aggregate valuation

Comment 1b: Example Counterfactual

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- **Information versus price pressure.** Repurchase and issuance events move prices for two reasons
  - information: managers reveal something about fundamentals or mispricing
  - price pressure: changing share supply mechanically moves prices
- Use the estimated multiplier to discipline the mechanical component:

$$CAR_i = \underbrace{\widehat{\mathcal{M}}_{\text{own}} \Delta s_i}_{\text{price pressure}} + \underbrace{\eta_i}_{\text{information / other channels}}$$

- Then ask: how much of the repurchase announcement drift or issuance discount is mechanical?
  - compare predicted pressure to realized event returns or post-event drift
- Caveat: the TSP estimate is local and eight-quarter; large issuance shocks may face different elasticities, as in Chaudhry and Li

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- This paper argues that this would require partitioning investors into shocked and unshocked groups

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- Existing papers typically use demand shifts from some investor group to trace out elasticities or price multipliers
- This paper argues that this would require partitioning investors into shocked and unshocked groups
- Conceptually, partitions are not necessary
  - even in a representative-agent world, a *clean* demand shifter traces out the demand curve
- The slippery part is not the slope, but the shifter
  - fund-flow trading into tech stocks may coincide with hedge funds, retail, or other institutions also buying tech
  - then the measured demand shock is correlated with other demand shifts
- So the strength of the paper is not avoiding "partitions"...
- **...it is that supply shocks are more plausibly uncorrelated with other investors' demand shifts**

Comment 3: The Dynamic Multiplier

- The dynamic estimates are cumulative ratios:

$$\Delta p_{j,h} = \mathcal{M}_{\text{relative},h} \Delta s_{j,h} + \gamma' \Delta x_j + u_g + \varepsilon_{j,h}$$

- If impact were static, immediate, and permanent, $\mathcal{M}_{\text{relative},h}$ should be roughly flat
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- Momentum can come from $\Delta s_{j,h}$ growing over time or $\mathcal{M}_{\text{relative},h}$ growing with time
    - Huebner (2025): momentum from $\mathcal{M}_{\text{relative},h}$
    - here: both create momentum

Comment 4: Matching As A Way To Absorb Spillovers

- **Matching differences out spillovers.** The paper compares treated stocks to matched controls

$$\Delta p_T - \Delta p_C = (\mathcal{M}_{TT} - \mathcal{M}_{CT})\Delta s_T - (\mathcal{M}_{CC} - \mathcal{M}_{TC})\Delta s_C + \sum_{\ell \neq T,C} (\mathcal{M}_{T\ell} - \mathcal{M}_{C\ell})\Delta s_\ell$$

- **HHHKL logic:** if treatment and control have the same substitution exposures,

$$\mathcal{M}_{T\ell} = \mathcal{M}_{C\ell} \quad (\ell \neq T, C), \qquad \mathcal{M}_{TT} - \mathcal{M}_{CT} = \mathcal{M}_{CC} - \mathcal{M}_{TC} \equiv \mathcal{M}_{\text{relative}}$$

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- Two ways to implement this:
  1. find a close twin and difference directly
  2. control flexibly for observables X that drive substitution
- **Tradeoff:** matching is plausible when the twin is close, including on unobservables; but not every stock has one

Conclusion

- Great experiment: a rare supply-side shock in equities
- The empirics cleanly estimate a relative multiplier around 2.5
- The own-price interpretation is plausible in this sample and relevant for corporate finance questions
- My main suggestion: cash out the motivation with counterfactuals