Discussion

Democratizing Private Markets: Equilibrium Predictions

by Lubos Pastor, Robert Stambaugh, and Lucian Taylor

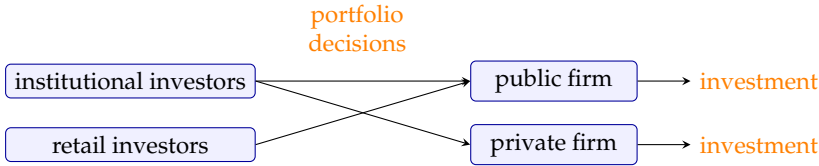
Eduardo Dávila
Yale and NBER

Five Star Conference
NYU Stern
November 20, 2026

This Paper

What happens when private markets open to retail investors?

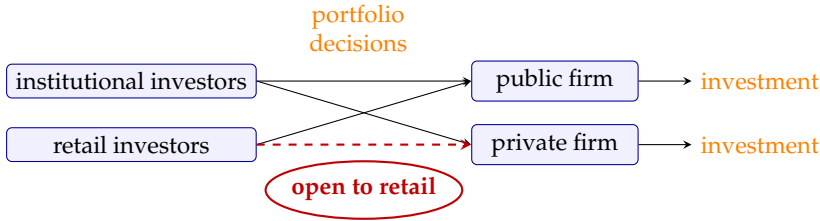
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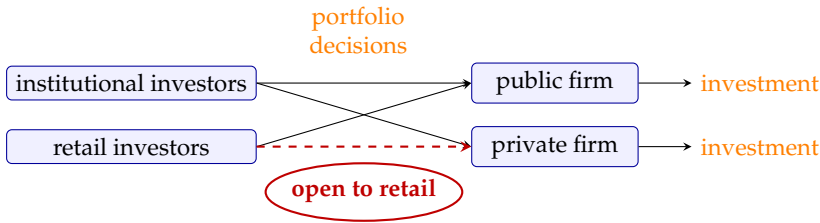
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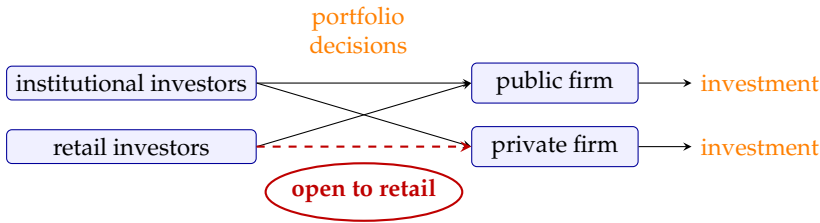


1. **Investors:** retail welfare gains are *small* $\rightarrow$ 1 bp (SR), 7 bps (LR) of wealth (per year)
2. **Investment:** *large* effects
   private cost of capital -64 bps (SR), private capital $+142\%$ (LR), private CAPM alpha $0.97\% \rightarrow 0.38\%$

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- Important and timely question
- Nicely crafted paper $\rightarrow$ very valuable contribution to *normative finance*
  - Crystal clear exposition + careful quantification

Outline

1. Model and Equilibrium → key assumptions
2. Welfare Effects of *Marginal* Democratization → complementary insights
   - Short Run
   - Long Run
3. Broader Comments → possible extensions

Model and Equilibrium

Environment

1. **Firms:** $j = 1$ (public) and $j = 2$ (private)

$$d_j = K_j \left(\mu_j + \varepsilon_j \right) \qquad \text{with} \qquad \mathbb{C}ov \left[d_1, d_2 \right] > 0$$

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2. **Investors:** $i = A$ (institutional) and $i = B$ (retail) with $V^i = \mathbb{E}\left[-\exp\left(-\frac{a}{W_0^i} W_1^i\right)\right]$

$$W_1^i = R_f W_0^i + \underbrace{\sum_j \theta_j^i \left(d_j - R_f p_j\right)}_{\text{excess returns}}$$

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$$\underbrace{\theta_2^B}_{\substack{\text{retail private} \\ \text{holdings}}} \leq \bar{\theta} \quad \text{with} \quad \bar{\theta} = \begin{cases} 0 & \text{pre-democratization} \\ \infty & \text{post-democratization} \end{cases}$$

- My discussion → *marginal* changes in $\bar{\theta}$

Alvarez and Jermann (2004) (cost of business cycles), Dávila, Graves, and Parlatore (2024) (value of arbitrage)

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3. **Original shareholders:** choose investment $I_j = K_j - K_j^0$

$$V^O = W_1^O = R_f \sum_j (p_j - C_j (I_j)) \qquad \text{with} \qquad C_j (I_j) = I_j + \frac{\phi}{2} \frac{I_j^2}{K_j^0}$$

Equilibrium

- **Portfolio Decisions:** $\delta \equiv \frac{\mathbb{C}ov[d_1,d_2]}{\mathbb{V}ar[d_1]}$

$$\theta_2^i = \frac{W_0^i}{a} \frac{\mathbb{E}\left[d_2 - \delta d_1\right] - R_f\left(p_2 - \delta p_1\right) - \mathbf{1}_{\{i=B\}}\left(cK_2 + \psi\right)}{\mathbb{V}ar\left[d_2|d_1\right]}$$

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Lagrange multiplier $\rightarrow$ $\psi = \underbrace{a\mathbb{V}ar\left[d_2|d_1\right]\left(\frac{\theta_2^A}{W_0^A} - \frac{\theta_2^B}{W_0^B}\right)}_{\text{proportional to } \alpha} - cK_2$

- c small $\rightarrow \psi > 0$

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  - c small $\rightarrow \psi > 0$
- **Investment:** original shareholders' first-order condition $\rightarrow \frac{I_j}{K_j^0} = \frac{1}{\phi}\left(\frac{p_j}{K_j} - 1\right)$
  - Short run: $\phi \rightarrow \infty$ with $I_j = 0$ and $K_j = K_j^0$
  - Long run: $\phi \rightarrow 0$ with $p_j = K_j$

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	p_1	p_2
Short run	unchanged	**rises** $\left(\frac{dp_2}{d\theta} > 0\right)$
Long run $(p_j/K_j = 1)$	falls with K_1	rises with K_2

Welfare Effects

Short Run: Individual Welfare Effects

- **Result #1: Individual welfare effects** from marginal democratization $\bar{\theta}$

  in $t = 1$ dollars

$$\underbrace{\frac{dV^{A|\lambda}}{d\bar{\theta}} = -\theta_2^A R_f \frac{dp_2}{d\bar{\theta}} < 0}_{\text{institutions}}, \qquad \underbrace{\frac{dV^{B|\lambda}}{d\bar{\theta}} = \overbrace{\psi}^{>0} \overbrace{-\theta_2^B R_f \frac{dp_2}{d\bar{\theta}}}^{<0} \gtreqless 0}_{\text{retail}}, \qquad \underbrace{\frac{dV^{O|\lambda}}{d\bar{\theta}} = R_f \frac{dp_2}{d\bar{\theta}} > 0}_{\text{original shareholders}}$$

1. Multiplier $\psi \rightarrow$ retail gains
2. Distributive pecuniary effects $\rightarrow \frac{dp_2}{d\bar{\theta}} > 0$ (price of private investments $\uparrow$)
   Dávila and Korinek (2018)
   - Net buyers: institutions and retail $\rightarrow$ losers
   - Net sellers: original shareholders $\rightarrow$ winners
   - Zero-sum $\rightarrow \theta_2^A + \theta_2^B = 1$

Short Run: Aggregate Welfare Effects

- **Result #2: Overall efficiency effects** $\rightarrow$ sum of individual gains

$$\Xi^E = \frac{dV^{A|\lambda}}{d\bar{\theta}} + \frac{dV^{B|\lambda}}{d\bar{\theta}} + \frac{dV^{O|\lambda}}{d\bar{\theta}} = \psi = \underbrace{a\mathbb{V}ar\left[d_2|d_1\right]\left(\frac{\theta_2^A}{W_0^A} - \frac{\theta_2^B}{W_0^B}\right)}_{\text{risk-sharing}} - \underbrace{cK_2}_{\text{holding cost}}$$

Short Run: Aggregate Welfare Effects

- **Result #2: Overall efficiency effects** → sum of individual gains

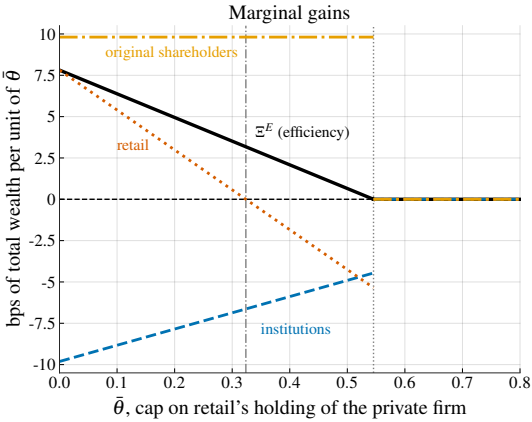
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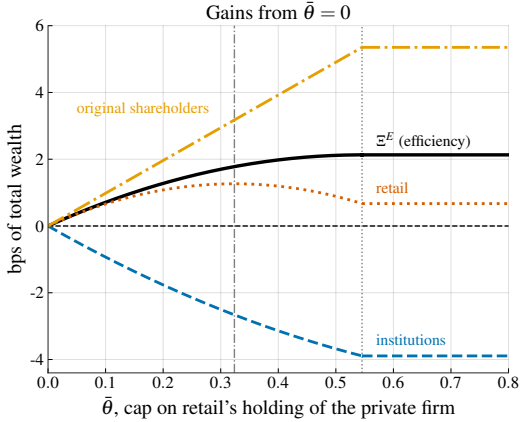
- **Remarks**
  1. *"The private market is simply too small for improved diversification to matter much"* (K_2 small)

$$\mathbb{V}ar\left[d_2|d_1\right] = K_2^2 v_{2|1}$$

  2. Investor welfare: $\frac{dV^{A|\lambda}}{d\bar{\theta}} + \frac{dV^{B|\lambda}}{d\bar{\theta}} < 0$ (Corollary 9) → but > 0 could happen in general
  3. c is a cost, not a transfer → but it is calibrated to fees
     $c \approx 0$ yields similar results

Short Run: Illustration





- Median calibration
- **Remark:** retail's welfare is highest at a limited cap: $\bar{\theta}^B = \frac{\gamma W_0^B}{1+W_0^B} < \gamma W_0^B$
  - Why? Distributive pecuniary effects: $\frac{dV^{B|\lambda}}{d\bar{\theta}} = \underbrace{\psi}_{>0} \underbrace{-\theta_2^B R_f \frac{dp_2}{d\bar{\theta}}}_{<0}$

Long Run: Welfare Effects

- **Result #3: Long-run individual welfare effects**

$$\underbrace{\frac{dV^{A|\lambda}}{d\bar{\theta}} = 0}_{\text{institutions}}, \qquad \underbrace{\frac{dV^{B|\lambda}}{d\bar{\theta}} = \Xi^{E} = \frac{\psi}{1-\bar{\theta}} > 0}_{\text{retail}}, \qquad \underbrace{\frac{dV^{O|\lambda}}{d\bar{\theta}} = 0}_{\text{original shareholders}}$$

  - K_2 adjusts $\rightarrow \frac{p_j}{K_j} = 1 \rightarrow$ no distributive pecuniary effects
  - Retail collects entire efficiency gain

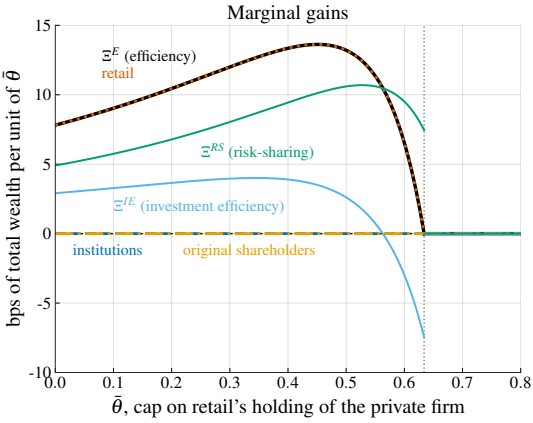
- **Result #4: Long-run overall efficiency effects**

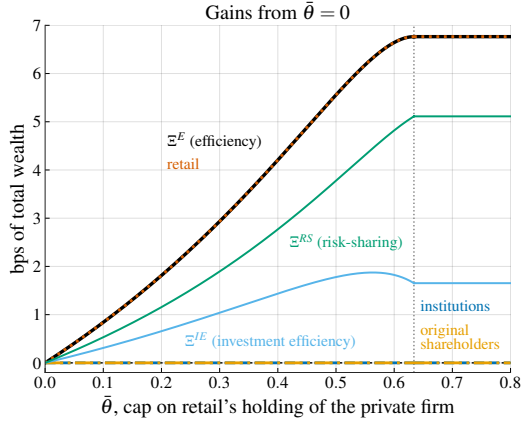
  Definition as in Dávila and Schaab (2025), Dávila and Hassanein (2026) $\quad \Xi^{RS} = \sum_s \mathbb{C}ov_i \left[\omega^i(s), \frac{dW_1^i(s)}{d\bar{\theta}} \right]$

  Details

$$\Xi^{E} = \frac{dV^{A|\lambda}}{d\bar{\theta}} + \frac{dV^{B|\lambda}}{d\bar{\theta}} + \frac{dV^{O|\lambda}}{d\bar{\theta}} = \underbrace{\Xi^{IE}}_{\text{investment efficiency}} + \underbrace{\Xi^{RS}}_{\text{risk-sharing}} > 0$$

Long Run: Illustration





- Increase in investment boosts risk-sharing gains
- If $c > 0 \rightarrow$ too much investment for high $\bar{\theta}$ (non-trivial)
- **Remark:** constant returns to private capital $\rightarrow$ decreasing returns?

Pástor, Stambaugh, and Taylor (2015) (decreasing returns to scale in active management)

Broader Comments

Broader Comments

#1 **Alternative rationales** for/against democratization

1. Asymmetric information → **against**
   - Institutional investors → better informed
   - *Swensen dictum*: "Retail investors should stay out of alternative asset classes"
2. Behavioral considerations → retail investors taken advantage of → **against**
   - Lack of sophistication/incorrect beliefs → paternalistic justifications

   Brunnermeier, Simsek, and Xiong (2014); Dávila (2023); Dávila and Walther (2023)

- Key distinction: Funds of private investments vs. specific private investments
  - Paper is about the former
  - Cross-section of private investments?

Broader Comments

#2 **Redistribution via investor heterogeneity**

- Paper carefully avoids these issues → one retail, one institutional investor
  - Retail = non-high-net-worth households + defined-contribution plans
    59% to 78% of wealth in the calibration
  - Institutions = high-net-worth households + defined-benefit plans + nonprofits
- Real world → accredited investors + qualified purchasers already have access
  - Democratization helps the poor! → social welfare function → for

- Remark on calibration
  - $\mu_2 \approx \mu_1$ implied by the return moments and the small private share
  - Evidence on private-firm profitability?

Description	Parameter	Mean	Min	p50	Max
Public firm's expected ROA	μ_1	1.117	1.083	1.123	1.143
Private firm's expected ROA	μ_2	1.111	1.066	1.110	1.171

Broader Comments

#3 **Transition**

- One-period model + comparison of steady states → transition not counted
  - Retail inflow at impact → private prices rise → role of outside investors
  - Capital reallocation between public and private firms takes time

#4 **Dynamics**

- Compounding over long horizons → larger lifetime gains?
  - Persistent return differences
  - Wealth accumulation differs across investors

#5 **Broader impact on other literatures**

1. Financial innovation
2. Limited participation
3. Financial frictions

Conclusion

- Elegant model of a timely policy question $\rightarrow$ valuable contribution
- Clear and robust message
  - Marginal approach complements the results in the paper
- Scope to extend the model in a number of dimensions
  - Retail/investor heterogeneity + differential information + transition

Thank you for your attention

Backup: Welfare Numeraire and Stochastic Weights

- **Welfare numeraire** $\rightarrow$ one dollar at $t=1$ in every state, with $\lambda^i = \mathbb{E}\left[u_i'\left(W_1^i\right)\right]$

$$\frac{dV^{i|\lambda}}{d\bar{\theta}} = \frac{1}{\lambda^i}\frac{dV^i}{d\bar{\theta}} = \frac{d\left(CE^i\right)}{d\bar{\theta}}W_0^i$$

  - Willingness to pay of investor i for a marginal relaxation of the cap
  - Original shareholders hold riskless wealth $\rightarrow \lambda^O = 1$

- **Stochastic weights** $\rightarrow$ state s with probability $\pi(s)$

$$\frac{dV^{i|\lambda}}{d\bar{\theta}} = \sum_s \omega^i(s)\frac{dW_1^i(s)}{d\bar{\theta}}, \qquad \omega^i(s) = \pi(s)\frac{u_i'\left(W_1^i(s)\right)}{\mathbb{E}\left[u_i'\left(W_1^i\right)\right]}$$

  - Positive in every state and add up to one, with $\omega^O(s) = \pi(s)$
  - Normal payoff X valued at $\sum_s \omega^i(s)X(s) = \mathbb{E}[X] - \frac{a}{W_0^i}\mathbb{C}ov\left[W_1^i, X\right]$

Back

Backup: Welfare Decomposition

- **Decomposition** $\rightarrow W_1 = \sum_i W_1^i$ and $\omega(s) = \frac{1}{3}\sum_i \omega^i(s)$

$$\frac{dW^\lambda}{d\bar{\theta}} = \underbrace{\sum_s \omega(s)\frac{dW_1(s)}{d\bar{\theta}}}_{\Xi^{AE}} + \underbrace{\sum_s \mathbb{C}ov_i^\Sigma\left[\omega^i(s), \frac{dW_1^i(s)}{d\bar{\theta}}\right]}_{\Xi^{RS}} + \underbrace{\mathbb{C}ov_i^\Sigma\left[\omega^i, \frac{dV^{i|\lambda}}{d\bar{\theta}}\right]}_{\Xi^{RD}}$$

  - Efficiency $\rightarrow \Xi^E = \Xi^{AE} + \Xi^{RS} = \sum_i \frac{dV^{i|\lambda}}{d\theta}$
  - All wealth is consumed at $t = 1 \rightarrow$ intertemporal-sharing is zero

- **Aggregate wealth** $\rightarrow$ payments for the firms cancel

$$W_1(s) = R_f\left(\underbrace{W_0^A + W_0^B}_{=1} - \sum_j C_j(I_j)\right) + d_1(s) + d_2(s) - c\theta_2^B K_2$$

Back

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