# Discussion of Gocmen, Martínez-Toledano, and Mittal (2025)

"Private Capital Markets and Inequality"

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Workshop on Entrepreneurial Finance and Innovation (WEFI)

# Recap

**Objective:** Relationship between growth in private capital markets and rise in inequality

**Approach:** Use data from Pitchbook

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- **Ideal Experiment**: Randomly assign some states higher HWNI private investment levels and observe whether income inequality rises more in treated states
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**Plan for Discussion**

1. Identification Strategy
2. Risk-adjustment of Returns
3. Assumptions in Counterfactuals

# Point 1. Identification Strategy

# Empirical Design

**In an ideal world:**

- Randomly select some HNWIs to receive tax breaks while others do not
- Track their investment behavior over time
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**Solution**: Use cross-state geographic variation in exposure to QSBS

- Variation #1 $(t)$: Over time (Roll-out of QSBS expansion)
- Variation #2 $(s)$: Across states (High accredited investor density vs. low)

  ⇒ **Finding**: Resident HNWIs investments increase more in states with larger share of accredited investors

  ⇒ **Concern**: Maybe, high-HNWI states might have systematically different startup ecosystems, trends, or shocks (e.g. California)

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- Add Variation #3 $(i)$: Across investors (resident HNWI vs. non-resident HNWI, institutions)

$$\ln Y_{i,s,t} = \alpha_{i,s} + \beta_t(\ln X_{s,2008} \times \mathbb{1}_{i=\text{resident HNWIs}}) + \gamma_{i,t} + \delta_{s,t} + \zeta_{i,t} W_{s,t} + \epsilon_{i,s,t}, \qquad (1)$$

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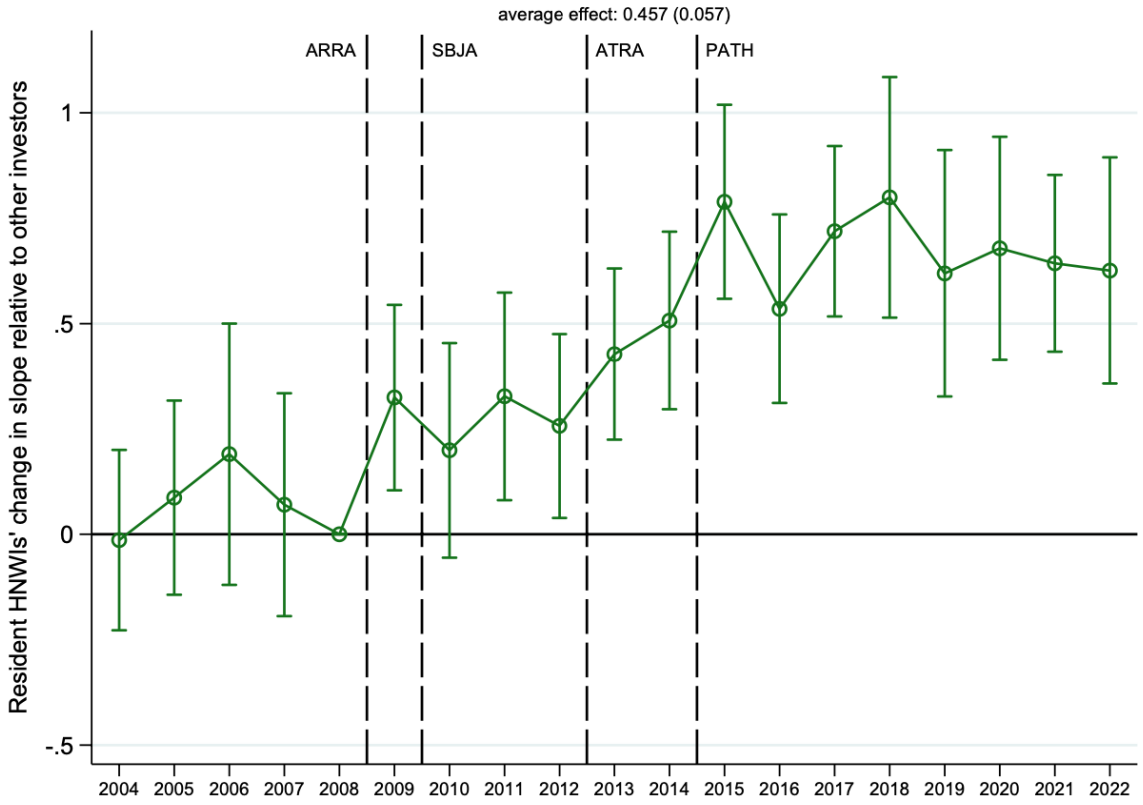
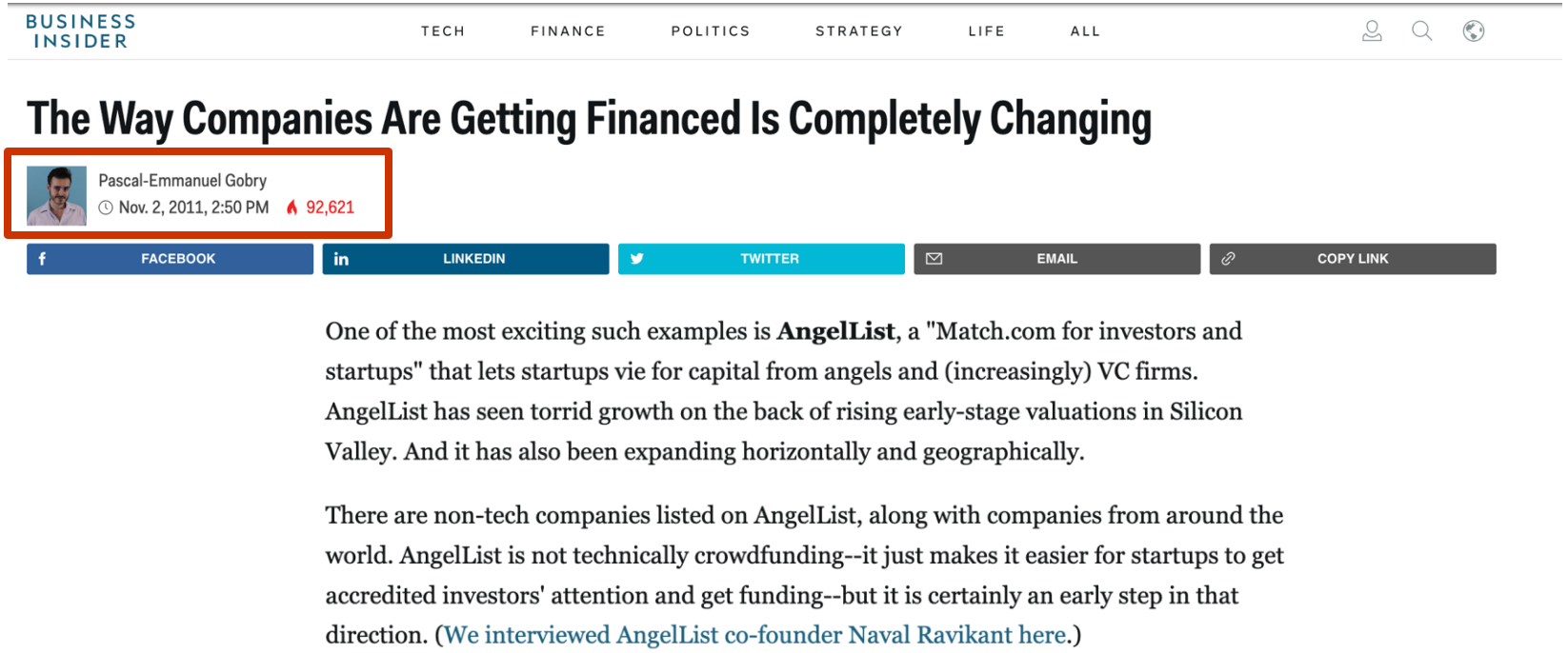
(B) Estimates of Equation (1)



# Potential Confounder?

**AngelList**

: Platform launched in 2010 that makes startup investing easier and more accessible for wealthy individuals



BUSINESS INSIDER

TECH FINANCE POLITICS STRATEGY LIFE ALL

## The Way Companies Are Getting Financed Is Completely Changing

Pascal-Emmanuel Gobry
Nov. 2, 2011, 2:50 PM 92,621

FACEBOOK LINKEDIN TWITTER EMAIL COPY LINK

One of the most exciting such examples is **AngelList**, a "Match.com for investors and startups" that lets startups vie for capital from angels and (increasingly) VC firms. AngelList has seen torrid growth on the back of rising early-stage valuations in Silicon Valley. And it has also been expanding horizontally and geographically.

There are non-tech companies listed on AngelList, along with companies from around the world. AngelList is not technically crowdfunding--it just makes it easier for startups to get accredited investors' attention and get funding--but it is certainly an early step in that direction. (We interviewed AngelList co-founder Naval Ravikant here.)

- Browse vetted early-stage deals
- Invest small checks (e.g. $1k-$25k) through syndicates

- Note: Kickstarter (2009), “Software is Eating the World” (2011), SeedInvest (2012)

# Suggestions

**Suggestion 1a.** Alternate measure of treatment intensity

- Current specification uses the number of accredited investors in a state in 2008 to proxy for QSBS exposure.
- Perhaps, the share of early-stage capital from accredited investors may be a better proxy to incorporate how dominant they are in the supply of capital

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**Suggestion 1b.** To distinguish QSBS from other confounders, authors can exploit differential timing in market infrastructure rollout

- If AngelList (or other post-GFC angel market infrastructure) is a confounder, then authors can use the variation in rollout timing or adoption intensity to difference out infrastructure-driven growth vs. policy-driven growth.
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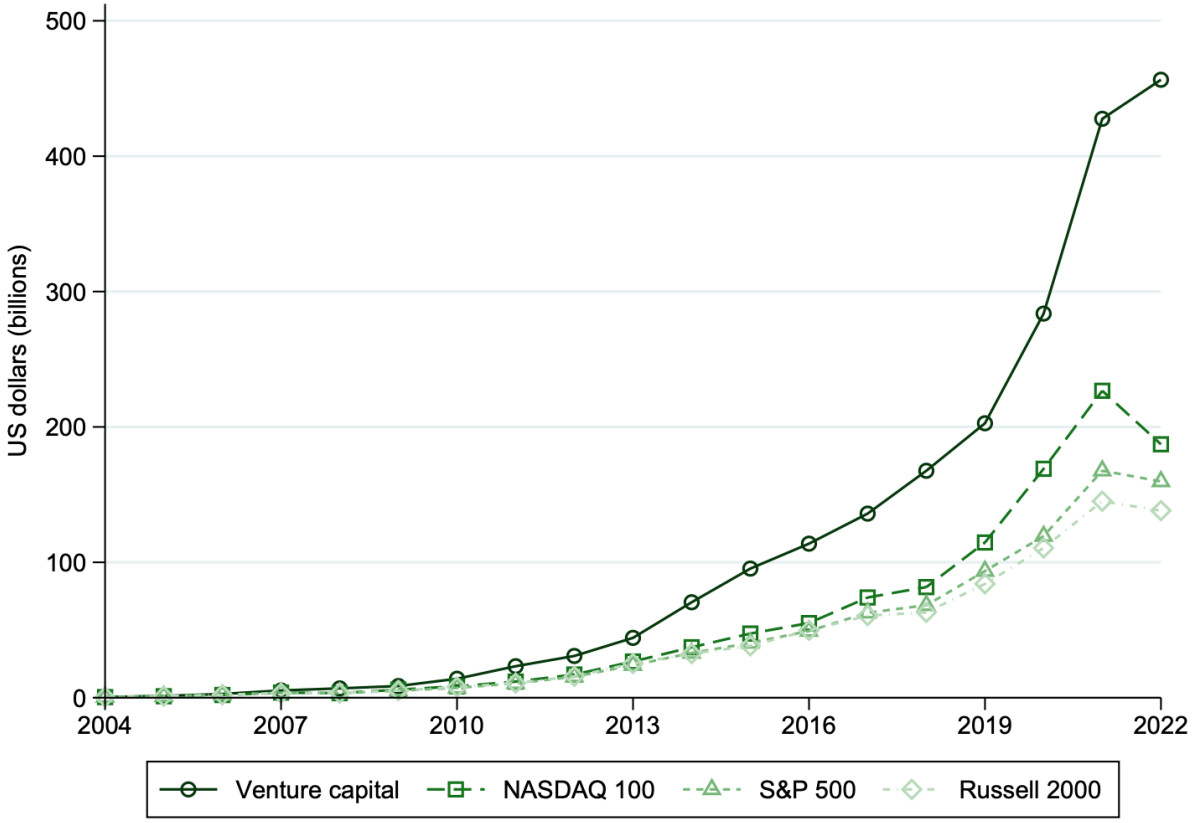
**Suggestion 1c.** Is it important that QSBS tax exemption drove the growth?

- Paper goes after a much more ambitious question of whether private market access (and participation) explains the rise in inequality
- Current empirical design can be interpreted as a causal policy evaluation, which may not be necessary for this paper

# Point 2. Risk-adjustment of Returns

# “Excess Returns” from Early-Stage Investing

Authors compare HNWIs’ returns on their early-stage investment and their counterfactual returns had they invested in public capital markets:



# Connecting Return Heterogeneity to Wealth Inequality

Growing literature emphasizing the role of return heterogeneity for wealth inequality

- **Empirics:** Bach et al. (2016), Fagereng et al. (2020)
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Related: Role of entrepreneurship and differences in risk-taking in wealth inequality

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To better connect to the literature, it seems important to distinguish whether the **higher returns** are **compensation for risk**.

- "Excess returns are alpha": Investors beat the public market not because they take more risk, but because they have access to superior opportunities
- "Excess returns are beta": Wealthy investors take on more risk (illiquidity, volatility, concentration) and are compensated for it.
- If this is just differences in beta, then one can use leverage to achieve a similar level of returns in public equities.

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**Suggestion 2.** Provide clarity on the source of excess returns

- Ideally, we could use some of existing tools (e.g. GPME, unsmoothing regressions) to quantify the alpha for the sample of firms studied in this paper.
- Alternatively, one could reference papers on the risk-adjusted performance in start-up investing

# Point 3. Assumptions in Counterfactuals

# Approach to Counterfactuals

**Authors' Approach:**

1. Compare the accumulated value of HNWI early-stage investments (from Pitchbook) to what the value would have been if invested in public markets
2. Attribute the difference in accumulated value to excess capital gains earned by HNWIs
3. Remove those excess gains from the observed income and wealth of the top 1% using SOI (income) and SCF (wealth) data.
4. Recalculate the top 1% share of income and wealth in this counterfactual world.
5. Attribute the difference between actual and counterfactual top 1% shares to the effect of excess returns from HNWI early-stage investments.

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**Assumption 1**. Dollar Reallocation

- When access to private assets is shut down, the optimal risky portfolio changes, increasing exposure to public equities to restore the risk-return trade-offs.
- Depending on the Sharpe ratio of the new portfolio, investors' dollar might allocation can be different from the original dollar invested in private assets.

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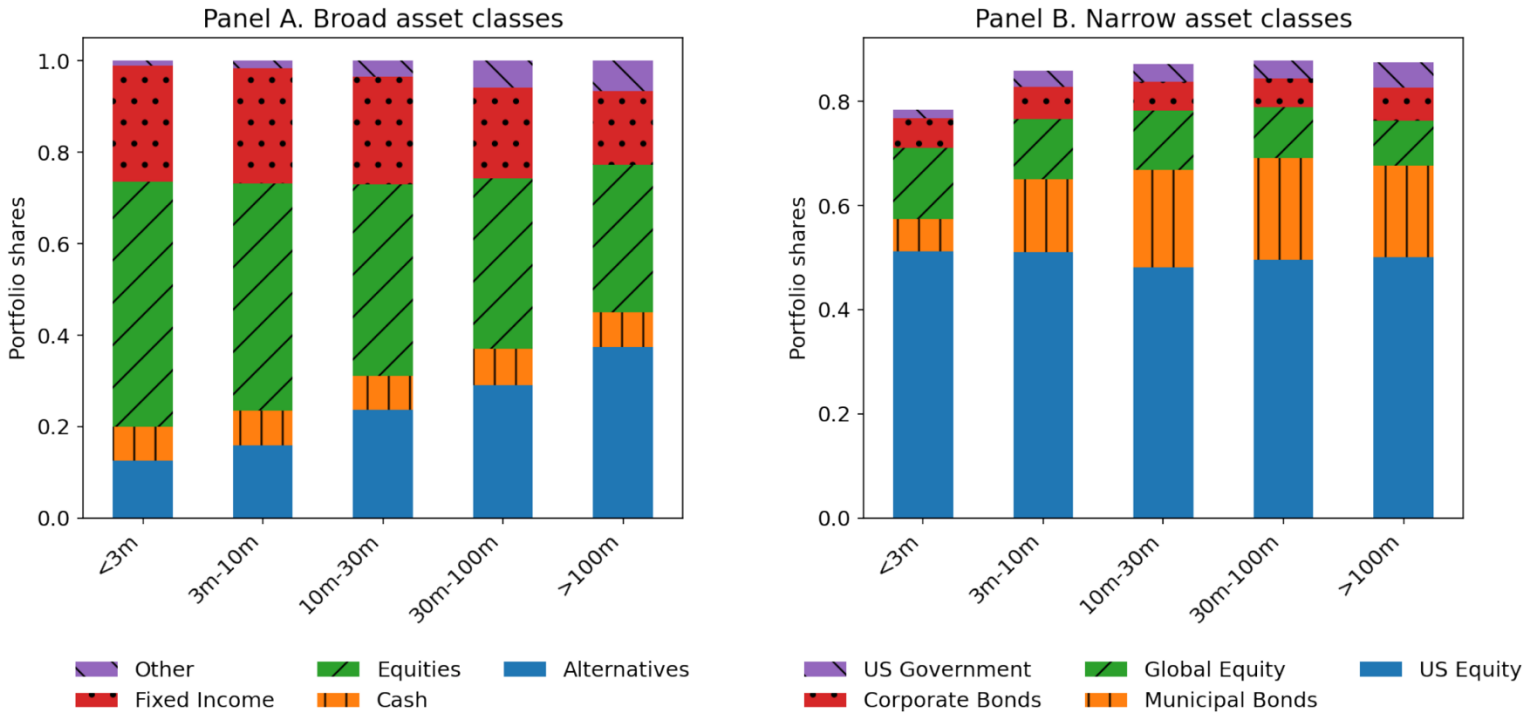
**Suggestion 3a.** Conduct Risk-adjusted Counterfactuals

- What would returns be if HNWIs took the same level of risk in public markets?

# Approach to Counterfactuals

**Assumption 2**. Public equities is the alternative.




Source: Gabaix, Koijen, Mainardi, Oh, and Yogo (2025)

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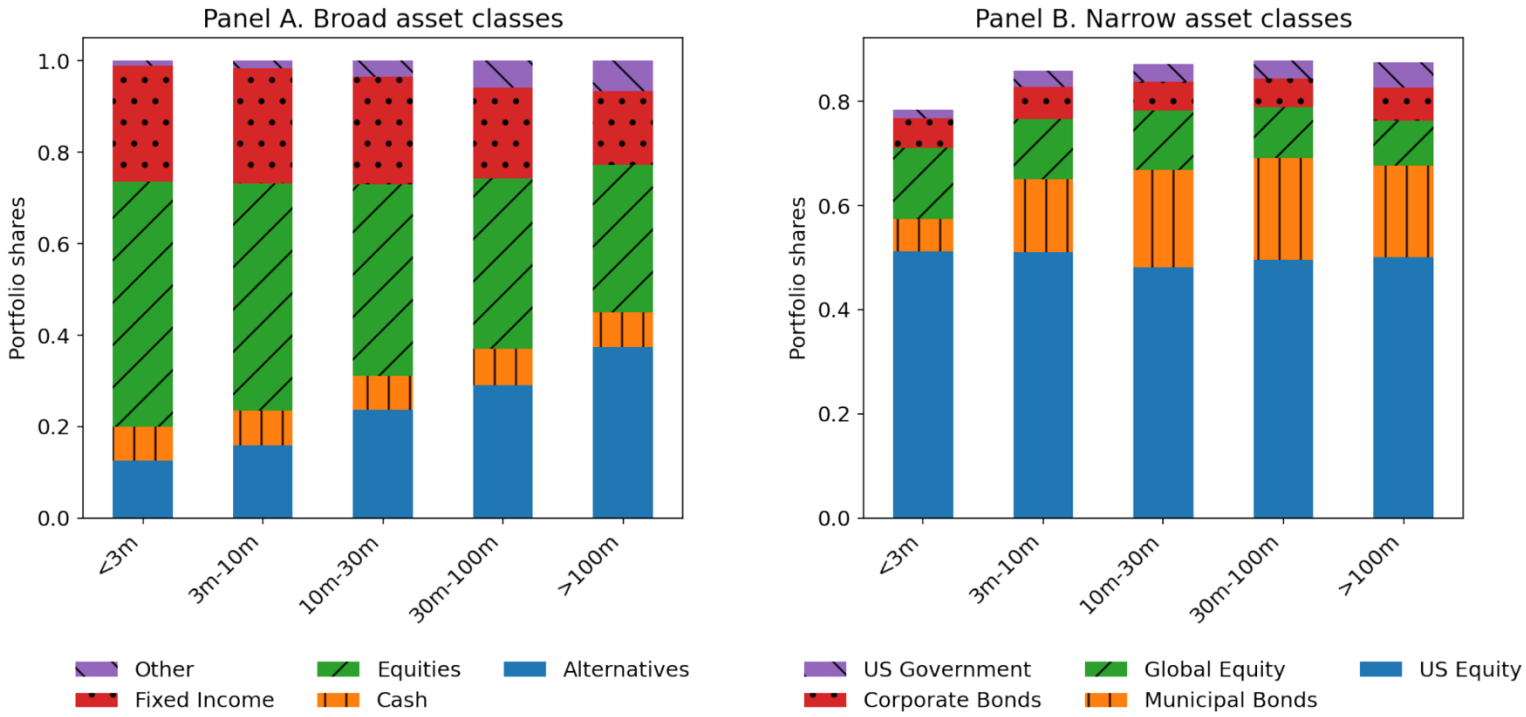


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**Suggestion 3b.** Consider other alternative assets

- Other liquid asset (municipal bonds, global equity)
- Other private assets (as LPs in PE, VC, and FoF) cf. Balloch, Mainardi, Oh, and Vokata (2025)

# Final Thoughts

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  - Tighter identification of the policy impact
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- **A few questions prompted by the paper for the future:**
  - Disentangling access vs. performance conditional on access
  - Other aspects of private markets not covered (e.g. LPs in funds)

- **Very much looking forward to the next version!**