

# EDHEC - Future of Finance

Tuesday, 3 December, 2024



INSTITUTE  
for PRIVATE  
CAPITAL

The mission of the Institute for Private Capital is to advance research, promote public understanding, and inform policymakers in the area of private capital.

- IPC, although affiliated with UNC Kenan-Flagler Business School, is a [multi-university initiative](#) involving leading scholars in private capital.
- We provide unbiased & independent research, conducted by our network of academic affiliates.
- We offer exclusive access to data for academic research.
- We [rely on support from IPC members](#) to help fund our data and research support, and to create a community of practitioners and academics.
- We work in partnership with our members, offering [outreach and education](#), and developing new research from collaboration and joint projects.

## IPC's Research Areas

### Private Equity



- Academic researchers and industry professionals dedicated to advancing research on private equity, private credit, and venture capital
- Completed: 70+ projects by 90+ Faculty, 50+ Univ., 20+ Ph.D. Students

### Real Assets

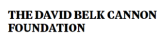
- Collect and curate data on real assets including real estate, infrastructure, and natural resources.
- Current research project developing a platform for merging & scrubbing multiple property-level data sources

### Active Management Alternative Assets

- Research projects aimed at better understanding portfolio management and construction with alternative assets across the liquidity spectrum
- Working to create a comprehensive database for hedge fund research

IPC Academic Affiliations (Leadership & Fellows) Include: Chicago Booth, Columbia, Cornell, Dartmouth, Duke, Harvard, Indiana, London School of Economics, MIT, NYU, Ohio State, Oxford, Penn State, Rice, St. Gallen, Stanford, Tulane, UBC, UC Berkeley, UC Davis, UCSD, UNC, USC, UT-Austin, UVA, Vanderbilt, Wharton, Wisconsin, among others!

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# Scale, Scope, and Speed in Private Capital Funds

An IPC White Paper<sup>1</sup>

Gregory Brown  
Weatherspoon Distinguished Professor of Finance  
University of North Carolina at Chapel Hill  
gregwbrown@unc.edu

April 2024 (new version coming soon)

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<sup>1</sup>The full white paper can be found [here](#). Contributing authors: Gregory Brown, Weatherspoon Distinguished Professor of Finance, UNC Chapel Hill Kenan-Flagler Business School and Research Director, Institute for Private Capital (gregwbrown@unc.edu). Contributing authors: Elyas Femand (Santa Clara Univ.), Wendy Hu (MSCI), Richard Maxwell (UNC Kenan-Flagler Business School), and William Volckmann (UNC Institute for Private Capital).

- Well-documented declining returns to scale in mutual funds and hedge funds
- Seminal theory paper by Berk and Green (2004)
  - “Despite differential skill levels, a competitive market for asset allocation leads to declining ability to implement winning strategies”
  - Investors continue to pour in capital assuming past excess returns will continue  $\Rightarrow$  decreasing returns to scale push down returns until they are average
- Convincing empirics by Pástor et al. (2015), among others
  - “We find strong evidence of decreasing returns at the industry level. As the size of the active mutual fund industry increases, a fund’s ability to outperform passive benchmarks declines.”

- Mixed results for buyout funds
  - Insignificant Scale/Size Effects: Kaplan and Schoar (2005); Robinson and Sensoy (2016); Harris et al. (2014); Rossi (2019); Harris et al. (2023)
  - Positive: Metrick and Yasuda (2010); Chung et al. (2012); Robinson and Sensoy (2013)
  - Negative: Humphery-Jenner (2012); Lopez-de Silanes et al. (2015); Braun et al. (2023)
- VC research tends to show positive returns-to-scale
  - Rossi (2019); Ewens and Rhodes-Kropf (2015); Lim (2023)



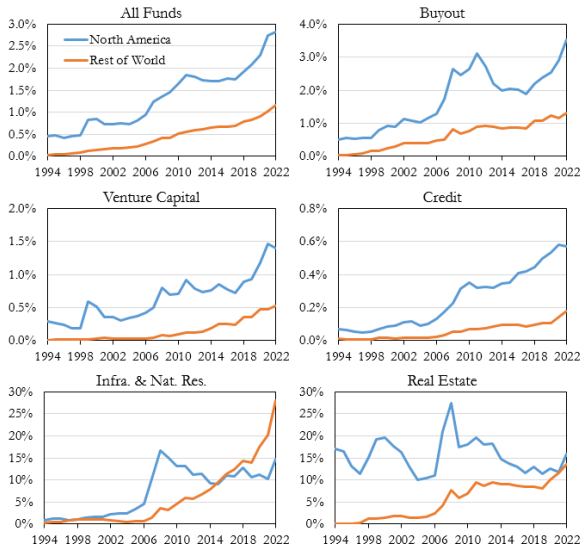
- How is private fund market-adjusted performance (PME) related to:
  - total capital committed to an investment strategy?
  - fund size?
  - fund size growth from the previous fund?
  - general partner (GP) investment scope?
  - GP fundraising speed (i.e., time-to-market for the next fund)?
- We utilize the MSCI-Burgiss Manager Universe and examine a global sample of 10,276 buyout, venture capital (VC), credit, infrastructure & natural resource (infra-NR), and real estate funds representing 8.7 trillion USD in committed capital
  - We focus on vintage years from 1994 to 2018 and use performance data through 2022:Q4 (ensuring we have at least 5 years of data for all funds)

1. We find no evidence of negative trends in performance for any investment strategy. However, there is a notable dip in performance around the GFC.
2. Average returns for larger funds are lower for all strategies and geographies. However, this is due to greater performance dispersion of small funds.
  - There is no reliable difference in *median* performance of large funds versus small funds.
3. Growth in fund size from one fund to the next is not related to market-adjusted performance for any strategy or geography.
4. We find no reliable evidence that overall growth of GP AUM or scope of strategies are related to lower performance of private funds.
  - In contrast, the total number of funds previously managed by a GP is positively related to performance of buyout and venture funds.

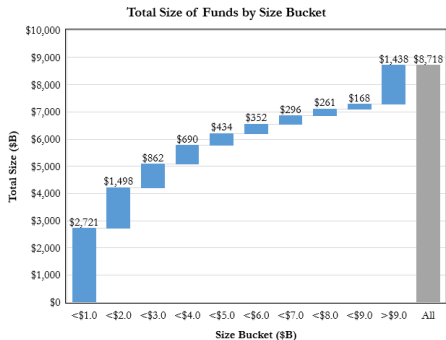
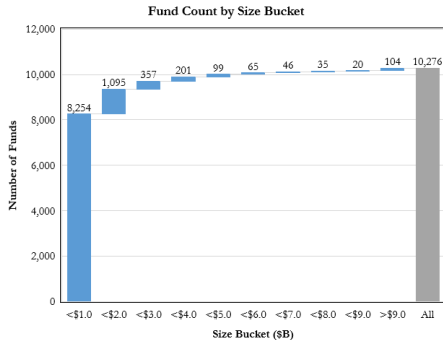
We hope these findings stimulate further research!

- We use the MSCI-Burgiss Manager Universe and focus on funds with vintage years 1994 - 2018 for the main analysis so we have at least 5 years of data for all funds. Performance data are through 2022:Q4.
- PMEs are calculated using strategy-specific benchmarks
  - North America Equity: Russell 3000 Total Return Index
  - ROW Equity: MSCI World Ex-USA Total Return Index
  - Credit: S&P Leveraged Loan Total Return Index
  - Real Assets: MSCI World Real Estate Net Total Return Index
- We create scaled NAV measures using public market capitalization data from the World Bank and SIFMA

## Total NAV Scaled by Strategy Market Cap

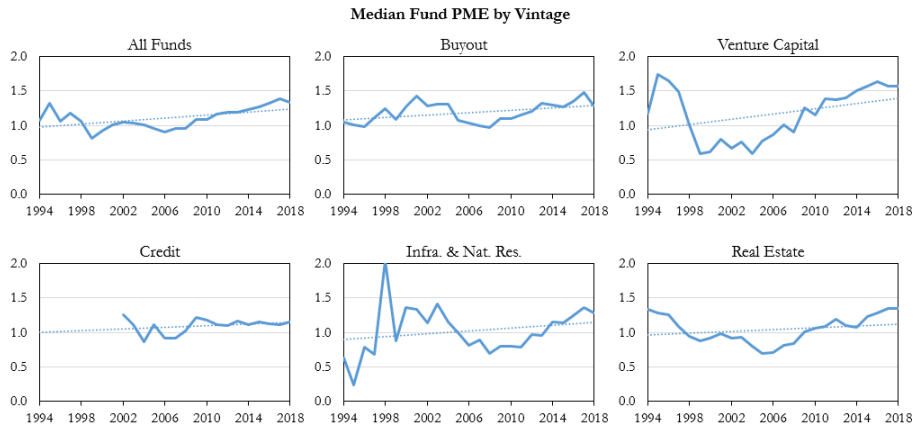


# Results: Fund Number and Fund Size



Source: MSCI-Burgiss

# Results: Trends in Vintage Year PME by Strategy



Source: MSCI-Burgiss

### PME and Pooled Strategy Size

	All Assets	Buyout	VC	Credit	I&NR	RE
<b>Time Trend</b>	0.00 (0.48)	0.00 (0.13)	0.04* (1.97)	<0.01* (1.87)	0.00 (0.13)	0.00 (0.20)
<b>Pooled NAV (\$B)</b>	-0.00 (1.42)	<0.01* (1.80)	0.00 (1.08)	0.00 (0.90)	0.00 (1.02)	-0.00 (0.12)
<b>Scaled NAV</b>	-0.58 (1.01)	-8.03* (1.68)	-302.94 (1.60)	-77.62* (1.86)	-1.80 (1.35)	-2.64 (1.19)
<b>Observations</b>	280	56	56	56	56	56

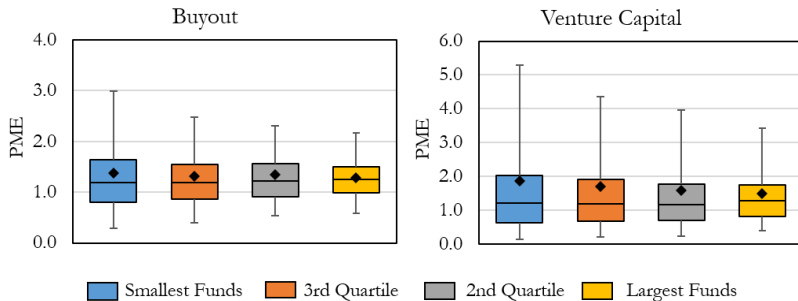
Time trend is annual. t-statistics shown in parenthesis. All regressions include geography fixed effects and standard errors are clustered at the GP level. \* denotes 10% significance for a two-tailed test. Source: MSCI-Burgiss.

### PMEs (Size Quartiles Sorted by Vintage Year)

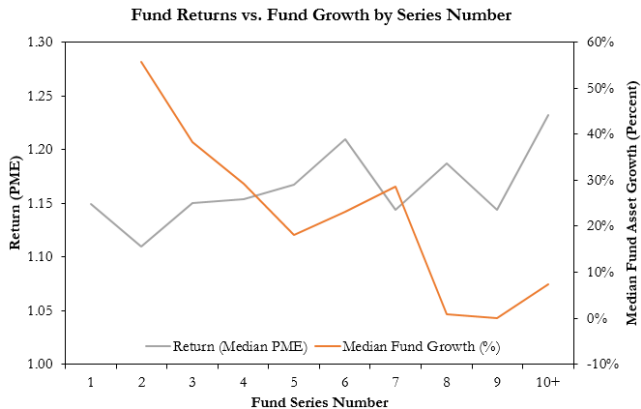
	Small Funds	3rd Size Quartile	2nd Size Quartile	Large Funds
<b>Strategy</b>				
Buyout	1.36	1.36	1.33	1.29
Venture Capital	1.78	1.64	1.61	1.61
Credit	1.32	1.30	1.12	1.15
Infra. & NR	1.38	1.19	1.19	1.14
Real Estate	1.44	1.09	1.18	1.09
<b>Geography</b>				
North America	1.57	1.41	1.30	1.20
Rest of World	1.62	1.51	1.32	1.31
<b>All Funds</b>	1.50	1.38	1.36	1.33

Source: MSCI-Burgiss

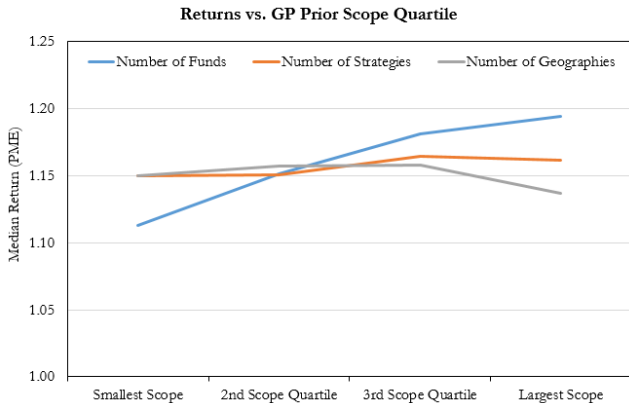




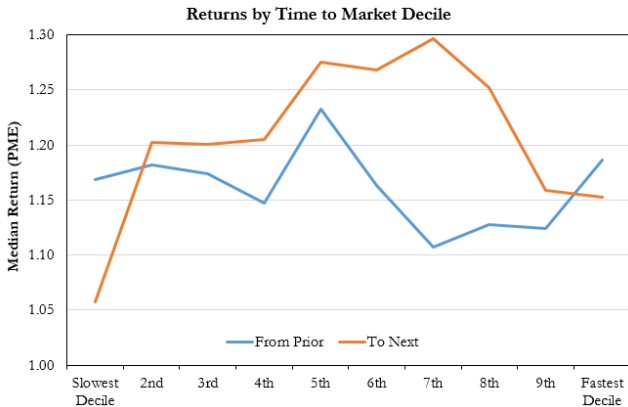
Source: MSCI-Burgiss



Source: MSCI-Burgiss



Source: MSCI-Burgiss



Source: MSCI-Burgiss

**Dependent Variable = PME (Relative to Strategy x Geography Benchmark)**

	All Assets	Buyout	VC	Credit	I&NR	RE
<b>Fund Size (\$B)</b>	-0.02*** (2.62)	-0.01 (1.20)	-0.14 (1.32)	0.00 (0.18)	-0.01 (0.40)	-0.03 (1.07)
<b>Fund-to-Fund Growth Rate</b>	0.00 (0.25)	0.00 (1.03)	0.00 (0.14)	0.00 (0.39)	-0.01 (0.64)	-0.01 (1.09)
<b>GP Size Growth Rate</b>	-0.00 (0.64)	-0.00 (0.63)	-0.00 (0.11)	0.00 (0.54)	0.03 (1.07)	-0.02 (0.44)
<b>GP Scope Rate - Active Funds</b>	0.46** (2.37)	0.81* (1.94)	1.48*** (3.17)	-0.09 (0.43)	0.08 (0.25)	0.33 (1.08)
<b>GP Scope Rate - Strategies</b>	-0.03 (1.57)	0.01 (0.63)	-0.11 (1.44)	0.01 (0.51)	0.17 (0.80)	-0.05 (0.96)
<b>GP Scope Rate - Geographies</b>	-0.02 (1.21)	-0.02 (1.23)	-0.06 (0.77)	-0.01 (0.65)	-0.04 (0.44)	0.04 (0.96)
<b>GP Speed to Market</b>	<0.01*** (6.85)	<0.01** (2.70)	<0.01** (6.39)	0.00 (1.07)	-0.00 (0.57)	-0.00 (0.80)
<b>Vintage fixed effects</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Strategy fixed effects</b>	Yes	No	No	No	No	No
<b>Geography fixed effects</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Industry fixed effects</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Clustered std. errors (GP)</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Observations</b>	4,919	1,744	1,457	614	333	763

t-statistics shown in parenthesis. Source: MSCI-Burgiss.

- Despite substantial growth in most strategies, there is no evidence of declining market-adjusted returns (PMEs) in private markets.
- Average performance declines as funds get larger, but median performance is essentially the same across size quartiles.
- The fund-to-fund growth in fund size is unrelated to relative performance. Increasing GP scope and maturity is not negatively related to performance.
- **Some Implications:**
  - Worries about diseconomies of scale are likely overblown.
  - Skill in selecting small GPs is likely to be more beneficial than skill in selecting large GPs.
- **Important Questions for Future Research:**
  - Why do some GPs diversify while some stay focused?
  - Are there “cyclical constraints” that drive performance patterns?
  - How much would the private fund industry have to grow to reach the point of meaningful diseconomies of scale?



For more information on IPC research, please visit [uncipc.org](https://uncipc.org) or contact:

IPC Research Director, Prof. Greg Brown at [gregwbrown@unc.edu](mailto:gregwbrown@unc.edu).

or

IPC Executive Director, Sarah Franks at [sarah\\_franks@kenan-flagler.unc.edu](mailto:sarah_franks@kenan-flagler.unc.edu).

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