

# Expanding Access: Retail Investors and Private Funds

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## ABSTRACT

Politicians, investors, and investment managers have begun advocating for the expansion of retail investor access to private markets, despite uncertain implications for individual financial opportunities and outcomes. We study private market investment vehicles that have recently become available to all retail investors: closed-end funds of private funds (CE-FOPFs). In August 2025, the SEC made accreditation requirements on CE-FOPFs optional. We examine the characteristics and performance of these private-market-exposed securities. We show that there has been significant growth in the amount of capital allocated to CE-FOPFs, particularly those with a private equity focus, resulting in CE-FOPFs holding over \$80 billion in net assets by the end of 2025. In terms of performance, CE-FOPFs appear to provide some diversification benefits and positive risk-adjusted returns. However, they have underperformed public and private market benchmarks during our sample period, even before accounting for (often high) transaction fees. Finally, we document early descriptive evidence on the funds that have switched off accreditation requirements to cater to retail investors.

**JEL Classifications:** M41; M48; G20; G24; G28; G50

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## 1. INTRODUCTION

Private markets are less liquid and transparent than public markets, posing greater risks to investors (e.g., Lerner and Schoar 2004; Franzoni, Nowak, and Phalippou 2012). These factors have led regulators to limit private market access to institutional, professional, or accredited investors. However, private assets considered collectively have had higher returns than publicly traded securities over the last several decades (PitchBook 2025). Moreover, private markets account for an increasingly large fraction of overall capital allocation in the United States. Firms can use private markets to access capital needed for sustained growth, allowing them to remain private for longer or even forego public listings altogether. Some of the most valuable and innovative companies of today (e.g., SpaceX, OpenAI, Stripe) are privately held, while public firms have become larger and older (Kahle and Stulz 2017). Thus, some politicians, investors, and firm leaders have begun to advocate for increased retail investor access to private markets, arguing it is unfair that most individuals are missing out on opportunities for high returns and diversification provided by private assets.<sup>1</sup> We study the effects of expanding retail investors' access to private markets by examining a change in regulatory approach by the SEC, which recently opened closed-end funds of private funds (CE-FOPFs) to retail investor participation.

A CE-FOPF is a registered closed-end fund that invests in private funds, such as buyout, venture capital (VC), and hedge funds. Unlike other closed-end funds, CE-FOPFs are not exchange-listed. Instead, they take on new investors by offering shares on an ongoing basis and provide liquidity to existing investors through periodic share repurchases. Since 2002, when the first SEC registered CE-FOPF was created, funds investing more than 15 percent of their assets in private funds were limited to institutions and wealthy individuals that met the SEC's accredited

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<sup>1</sup> As illustrations of these arguments, consider the August 7, 2025 Executive Order addressing 401(k)s (U.S. President 2025), an August of 2025 SEC Accounting and Disclosure Information release (SEC 2025), or SIFMA comments on a House bill to change the accredited investor rules (SIFMA 2025).

investor definition (Atkins 2025). In August of 2025, the SEC lifted this requirement, allowing fund managers to expand access to any investor interested in buying shares. Importantly, the rule does not *require* CE-FOPFs to accept retail investor capital. Fund managers may choose to either remove or retain the accreditation restrictions.

This change is significant, as the recent push to allow retail investor access to private markets, including through 401(k) plans, requires suitable investment vehicles that have low minimum capital commitments and ongoing exposure to a diversified portfolio of private assets with reasonable liquidity backstops (Brown et al. 2022). The structure of CE-FOPFs meets all these requirements, suggesting they may become a preferred vehicle through which retail investors gain private market exposure. The objectives of our study are to provide descriptive evidence on the characteristics and historical performance of CE-FOPFs and to examine whether CE-FOPFs that become available to retail investors differ from those that do not.

We focus our analysis on 116 CE-FOPFs operating between 2020 and 2025. These funds primarily invest in private equity (either VC or buyout funds) or hedge funds. Both the number of CE-FOPFs and the amount of capital allocated to them increased significantly during our sample period, from 51 funds holding \$21 billion in net assets in the first quarter of 2020 to 94 funds holding \$85 billion by the end of 2025. We identify the primary investment class of each CE-FOPF by linking their underlying fund holdings to Form D notices and PitchBook. There is significant variation in the primary investments across CE-FOPFs, with about 40 percent focusing on private equity, another 34 percent focusing on hedge funds, and about 8 percent investing in other funds (primarily real asset and private credit funds). The remaining 18 percent are generalist CE-FOPFs investing across different classes of private funds. The growth in CE-FOPFs is primarily driven by the rise of funds investing in private equity funds, which grow from holding \$8 billion in net assets

(38 percent of total CE-FOPF net assets) at the start of our sample period, to holding \$65 billion (77 percent) by the end.

The first attribute of CE-FOPF we examine is their fees. Annual fees to access these securities are much higher than most public market ETFs or mutual funds retail investors may be familiar with. The annual fees are also meaningfully higher than the typical management fees of private funds-of-funds (Ang, Rhodes-Kropf, and Zhao 2008; Harris et al. 2018) although, unlike private funds-of-funds, less than a quarter of CE-FOPFs in our sample charge performance fees. CE-FOPFs charge average annual fees of 6.5 percent of net assets, covering both CE-FOPF-level charges (such as management fees and distribution fees) and acquired fund fees (fees charged by the underlying funds and passed on to CE-FOPF investors).

Different investors may also experience different fee loads, as many CE-FOPFs issue multiple share classes with varying fee structures and minimum capital commitments. Retail share classes, which have lower minimum capital commitments, may be charged higher ongoing fees. In addition, there are significant differences in sales load fees across share classes comes, which are charged to investors initially buying shares in the fund. These fees are typically waived for institutional share classes, but range between 2 and 6 percent of the purchase amount for retail share classes. Many funds also charge early redemption fees (usually 2 percent) to investors redeeming shares within a year of purchase. Thus, transaction costs in our setting can be significant and can result in large performance differences for different types of shareholders.

We then examine the recent performance of CE-FOPFs. Returns net of fees, contributions, and distributions are reported in mandatory N-PORT filings. For CE-FOPFs with multiple share classes, we focus on the performance of the highest fee or lowest capital commitment share class,

which likely represents the entry point for capital constrained retail investors.<sup>2</sup> The reported returns are based on cash flow changes as well as changes in the Net Asset Values (NAV) of underlying holdings (i.e., unrealized gains and losses), net of fees. Notably, our return measures do not account for sales load fees or early redemption fees which can be significant, particularly in the short term. In other words, the after-cost performance for individuals subject to these fees would be worse than what we report.

We find that CE-FOPF returns have lagged those of several benchmarks during our sample period. A net-asset-value-weighted portfolio of CE-FOPFs returned 71 percent between the first quarter of 2020 and the end of 2025. This return is significantly lower than the 136 percent returned by the (public equity) S&P 500 index during the same period. We also examine private market benchmarks and find the performance of PitchBook’s fund-of-funds index and overall private markets index are also superior to that of CE-FOPFs, having returned 98 percent and 106 percent, respectively. Most of the underperformance of CE-FOPFs is attributable to lower returns during the post-COVID rally of late 2020 and 2021, whereas performance in recent years has been comparable or even superior to that of private market benchmarks. We also find significant heterogeneity in performance across fund types, with private equity focused CE-FOPFs and generalist funds earning higher returns than other fund types.

We next examine Fama and French (1993) factor exposures of CE-FOPFs, following a similar approach to that of Ewens, Jones, and Rhodes-Kropf (2013). Different fund types have relatively similar factor loadings, with market betas below 0.40, which is significantly lower than the estimates from earlier studies of direct private equity fund investments (e.g., Driessen, Lin, and

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<sup>2</sup> Our results do not qualitatively change when considering the performance of other share classes. In addition, our sample period is almost entirely before the SEC’s 2025 ADI, when all share classes were restricted to accredited investors. Still, the performance of the lowest capital commitment class should be suggestive of the potential returns for retail investors.

Phalippou 2012; Ewens et al. 2013; Jegadeesh, Kraussl, and Pollet 2015), and points to potential diversification benefits of CE-FOPFs. CE-FOPFs have generally small and insignificant loadings on the small-firm and book-to-market factors, which is consistent with the findings in Ewens et al. (2013) for buyout funds. Alphas are positive and statistically significant for the overall sample and for each fund type other than hedge fund focused CE-FOPFs, and highest for PE focused funds. Overall, the historical performance of CE-FOPFs suggests they have lagged public markets and other asset benchmarks during our sample period but have provided some diversification benefits and positive risk-adjusted performance. Performance has been strongest for PE focused CE-FOPFs, which are increasing in size and availability.

We then turn to our second objective of assessing differences between the CE-FOPFs accessible to retail investors and those which remain limited to institutions, professionals, and accredited investors. There is wide dispersion in the performance of private investments, which suggests that differential access could determine the quality of outcomes. It may be the case that opening CE-FOPFs to retail investors allows individuals to access a representative selection of investments, providing opportunities for higher returns and diversification. This effect would seem to be aligned with the SEC's mission of fair retail investor treatment, and would also align with the regulatory mission to facilitate capital formation from a new and potentially eager source of capital. Given the high fees charged by CE-FOPFs, it is possible that the best performing funds will be eager to open themselves to retail investors, who are known to be attracted to salient performance measures, such as trailing high returns (e.g., Blankespoor et al. 2019). Thus, retail investors may be in position to obtain exposure to previously inaccessible high-performing private funds, as intended by proponents of expanding access to CE-FOPFs.

However, there are several reasons why this change may have negative effects on

individual investor financial outcomes. First, the discretion that fund managers have over whether to accept retail investor capital could create an adverse selection problem, where individual investors only gain access to funds with worse performance than those available to institutions. Even if they gain access to similarly performing funds, the higher fees charged to small retail investors in exchange for lower minimum investment requirements may erode any potential return benefits from the underlying private fund investment.<sup>3</sup> Second, the higher fees, lower transparency, and limited liquidity of private assets can exacerbate the costs of systematic behavioral biases often associated with retail traders (e.g., Barber and Odean 2013). As summarized by Brown et al. (2022), allowing retail investors to participate in private markets requires balancing “equal access to investment opportunities with the need to protect unsophisticated investors.”

We provide initial descriptive evidence on this empirical question by examining the characteristics and historical performance of CE-FOPFs that choose to expand access to retail investors (i.e., “Switcher” funds), relative to the CE-FOPFs that remain restricted to accredited investors. We find that, on average, Switcher funds are larger and have lower fees and higher past returns than other funds. In fact, Switcher funds outperformed other funds by around 16 percentage points over the two year period before the SEC ADI. Our preliminary evidence is inconsistent with concerns over the worst performing, highest-fee CE-FOPFs being those most likely to cater to retail investors. This evidence is limited to a very small sample, and recent performance may not predict future performance, so we hesitate to draw strong conclusions without more quarters of N-PORT data. However, we can confidently assert there has been a dramatic uptick in the number of new CE-FOPF registrations with the SEC since the 2025 ADI, and most of these new funds are specifically targeting retail investors. As additional funds become registered or make the decision

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<sup>3</sup> This may be a fully rational response from fund managers attempting to address costs from heightened liquidity demands, increased portfolio volatility, lower investor sophistication, and greater regulatory oversight risk introduced by retail investors (e.g., Brown et al. 2022; Gilson 2025).

to lift accreditation requirements, and more post-ADI performance data becomes available, we plan to estimate a determinants model to examine the factors driving the choice to accept retail investor capital. This additional data will also permit more powerful tests of performance differences across funds with different accreditation requirements.

Our study contributes to the ongoing and challenging policy discussions around increased retail investor access to private markets by providing empirical evidence on the characteristics and historical performance of CE-FOPFs. These investment vehicles are an emerging path for retail investors to gain exposure to a diverse portfolio of private funds across a variety of investment classes, including private equity and hedge funds. We find mixed evidence for whether access to CE-FOPFs will give retail investors the “potential growth and diversification opportunities” that have been highlighted as the motivation behind the democratization of private markets (U.S. President 2025). Although we find CE-FOPFs provide some diversification benefits and have had positive risk-adjusted returns, we also find that they have underperformed cheaper public market alternatives in recent years. Moreover, the large influx of new CE-FOPFs raises questions about whether retail investors will be able to achieve similar future performance, especially given funds catering to retail investors are likely to charge higher fees.

Our study is also well positioned to contribute to a nascent literature on individual investor performance in private markets. We build on the work of Balloch et al. (2025), who examine the performance of accredited individual investors in direct private fund investments and find that differences in wealth are an important determinant of performance. The SEC’s 2025 ADI opened the CE-FOPF market to all retail investors and, as data on retail-focused funds become available, we intend to examine how everyday investors perform in their private market investments.

## 2. INSTITUTIONAL BACKGROUND AND RESEARCH OBJECTIVES

### 2.1. Private Market Democratization

The amount of capital allocated to private markets now far outpaces that invested in public markets (Bauguess, Gullapalli, and Ivanov 2018). Available capital allows firms to stay private longer, a tendency illustrated by the fact that 87 percent of US firms with annual revenues exceeding \$100 million are privately held (Sløk 2024). This growth in private market capital flows can be partly explained by the outsized returns private market investments have enjoyed relative to those in public markets, which have made private asset allocations a more important element of institutional investors' portfolios.<sup>4</sup> In addition, private markets are exempt from many securities regulations and thus operate in a markedly different regulatory and disclosure environment than public markets, with significantly less transparency (e.g., De Fontenay 2016; Bernard and Sutherland 2026). Investments in private markets often incur higher fees and may face additional risks, such as low liquidity and high commitment risk.<sup>5</sup> Because of these features, the SEC has historically restricted private market investment to institutions and individual accredited investors whom the SEC sees as “financially sophisticated and able to fend for themselves” (SEC 2021).<sup>6</sup> The suggestion is that typical retail investors should be protected from these markets.

However, the growing economic importance of private markets makes them an increasingly important source of diversification for all types of investors (e.g., Goetzmann,

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<sup>4</sup> A large literature, primarily focused on VC and buyout funds, has debated whether and to what extent investments in private markets have outperformed public market benchmarks (e.g., Kaplan and Schoar 2005; Phalippou and Gottschalg 2009; Stucke 2011; Harris, Jenkinson, and Kaplan 2014; Phalippou 2020). The latest evidence suggests that private equity investments have generated superior risk-adjusted returns since the 1980s except for vintages around the Great Financial Crisis (Brown et al. 2022).

<sup>5</sup> Commitment risk refers to the uncertainty around the timing mismatch between capital commitments and capital calls in private fund investments (Harris et al. 2014).

<sup>6</sup> Individuals can gain accreditation either by having income or net worth above specified thresholds, or by possessing certain professional qualifications. As of 2025, the accreditation thresholds are a net worth of \$1 million (excluding the investor's primary residence) or annual income above \$200,000 (\$300,000 when including a legal partner) in each of the previous two years. To meet the professional qualification criterion, the individual must hold a Series 7, Series 65, or Series 82 license.

Gourier, and Phalippou 2018; Schlingemann and Stultz 2020; Flynn and Ghent 2024; Shivakumar and Urcan 2026). There are increasing calls to democratize access to private markets, in part motivated by the perceived unfairness in preventing most of the population from choosing to invest in historically high-returning assets. As a result, there have been some recent regulatory and political shifts toward expanded access. In June of 2020, the Department of Labor (DOL) issued a public response letter laying out guidelines for how the inclusion of private equity investments in retirement plans would comply with ERISA (see Brown et al. 2022 for a discussion of these guidelines). More recently, in August of 2025, President Donald Trump issued an executive order directing the DOL and the SEC to take steps towards the inclusion of alternative assets (including private market investments) in individuals' retirement accounts (U.S. President 2025).

Most calls to expand access do not address two features of traditional private markets that make them less suitable for many retail investors. First, private market investments typically require high minimum commitments, which limit the ability of capital constrained investors to obtain diversified exposure to private assets. Second, investments in these markets are often illiquid, which can expose retail investors to high entry and exit costs. Both features are problematic for a class of investors with (on average) lower wealth and higher likelihood of liquidation needs. One investment vehicle that could address these issues is the closed-end fund. Closed-end funds investing in private markets provide a potentially lower dollar commitment and higher liquidity path to private investment. In fact, the DOL investment outline refers to funds-of-funds as one mechanism through which retail investors could gain exposure to private assets (Brown et al. 2022). However, to date there is limited academic evidence on the performance of these investments and whether retail investors, when allowed access to them, should expect to achieve comparable performance to the historical returns earned by institutional investors. To shed

light on these questions, we examine SEC registered closed-end funds of private funds.

## **2.2. Closed-end Funds of Private Funds**

Closed-end funds are investment vehicles that raise capital from investors in exchange for fund shares and, unlike open-end mutual funds, are not required to redeem those shares on demand. Thus, one of the primary advantages of closed-end funds relative to other investment management organizational forms is their ability to implement long-term strategies or make illiquid investments without risking a run by investors (e.g., Stein 2005).<sup>7</sup> Relatedly, they provide a liquidity transformation service by allowing investors to gain exposure to illiquid assets that are costly to trade by “transforming” them into more liquid securities (i.e., fund shares). Closed-end funds-of-funds (CE-FOPFs) investing in private equity have existed since the beginning of the private equity industry (e.g., Harris et al. 2018), and their features make them a potentially useful vehicle through which individual investors could gain diversified exposure to private markets. The asset class has been increasing in popularity, with aggregate NAV growing to \$85.4 billion as of the end of 2025.

We refer to CE-FOPFs as SEC registered closed-end funds that provide access to a diversified portfolio of private funds. Under the SEC definition, private funds consist of funds exempt from SEC registration under rules 3(c)(1) or 3(c)(7) of the 1940 Investment Company Act: primarily buyout, VC, and hedge funds.<sup>8</sup> Unlike traditional exchange-listed closed-end funds, which raise a fixed number of shares in an IPO and trade in a secondary market, CE-FOPFs are almost always unlisted, offer shares to new subscribers continuously, and provide investors with liquidity through periodic share redemptions (see 17 CFR sec. 270.23c-3). CE-FOPFs can be structured as interval funds or tender offer funds, with interval funds required to have a policy of

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<sup>7</sup> Dimson and Minio-Kozerski (1991) and Cherkes (2012) provide comprehensive reviews of the closed-end fund literature.

<sup>8</sup> This definition of private funds excludes other unregistered funds, most notably private REITs, which rely on a different exemption from SEC registration (Section 3(c)(5)(C) of the 1940 Act). Thus, closed-end funds investing primarily in unregistered REITs have always been accessible by retail investors.

repurchasing a fixed percentage of outstanding shares at NAV at a set frequency, whereas tender offer funds repurchases are discretionary. In practice, both types of CE-FOPFs typically allow quarterly redemptions in amounts ranging between a maximum of five and 25 percent of outstanding shares.

Because direct investments in private funds are restricted to accredited investors, as defined under Regulation D of the Securities Act of 1933, historically the SEC also restricted CE-FOPFs with more than 15 percent of their assets invested in private funds from selling shares to non-accredited investors.<sup>9</sup> However, on August 15, 2025, the SEC announced Accounting and Disclosure Information (ADI) 2025-16, and stated it would begin allowing non-accredited retail investors to buy shares in CE-FOPFs (SEC 2025).<sup>10</sup> This change marks an important expansion of retail investor access to private markets by granting them a way to invest in private funds. Funds wishing to allow retail participation can update their prospectus by filing an amended form N-2 with the SEC indicating their change in accreditation requirement and ensure they have a minimum investment commitment below \$25,000.

### **2.3. CE-FOPF Fees and Share Classes**

CE-FOPFs charge annual fees to investors at two distinct levels. At the CE-FOPF level, investors pay a management fee and other annual expense fees, which cover various operating expenses, including account custody and administration, and audit and legal fees. Funds also often impose a distribution fee, which covers marketing and shareholder servicing expenses, consisting

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<sup>9</sup> By regulation, SEC registered closed-end funds can sell shares to any investor. The SEC enforced the restriction against CE-FOPFs offering shares to non-accredited investors through staff comments during the funds' registration process. Funds enforce compliance with accreditation requirements primarily through broker-dealers, which are the typical distributors of fund shares and have substantive verification processes tied to "know your customer" regulations. Verification can be less strict when funds sell shares directly to investors through subscription agreements, in which case they typically rely only on investors' self-certification statements.

<sup>10</sup> An SEC ADI is a publication that summarizes the SEC staff's views regarding the application of federal securities laws. Even though ADIs are interpretations of existing rules and thus do not represent new rules, they carry similar implications for issuers.

primarily of compensation to broker-dealers who market and sell the fund to investors.<sup>11</sup> Unlike the funds of private equity funds studied in Harris et al. (2018), which have carried interest fees of 5 percent on average, funds in our sample do not typically charge performance-based fees at the CE-FOPF level. Layered beneath the CE-FOPF charges are the fees of the underlying private funds (historically a 2 percent management fee plus 20 percent of carried interest). These underlying fees are included (as estimates) in CE-FOPFs annual expenses as “acquired fund fees and expenses.” CE-FOPF-level and acquired fund fees combine to produce CE-FOPFs’ total annual expenses, which can vary widely across funds.<sup>12</sup>

Besides these ongoing fees, CE-FOPFs also frequently impose sales load fees, which consist of charges the fund deducts from each investment at the time of purchase. These fees are typically a significant percentage of the amount invested, routinely above 3 percent. It is also common for CE-FOPFs to impose an early redemption fee on shares sold back to the fund within 12 months of purchase.<sup>13</sup> These fees are intended to discourage short-term investment and to compensate longer-term shareholders for the liquidity costs of accommodating early exits.<sup>14</sup> To the extent that retail investors face a higher likelihood of liquidation needs, these fees will have a negative impact on their after-cost returns relative to those earned by institutions.

Many CE-FOPFs offer multiple share classes, which allow fund managers to attract capital across distribution channels and investor types by offering alternative minimum investment

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<sup>11</sup> Distribution fees are capped at 1 percent of average net assets annually under Rule 12b-1 of the 1940 Investment Company Act. This 1 percent cap is the aggregate of individual caps of 0.75 percent for marketing and 0.25 percent for service fees.

<sup>12</sup> CE-FOPFs often have a self-imposed cap on certain annual expenses and offer fee reductions or waivers to offset amounts exceeding that cap. However, these fee reductions can usually be clawed back in future periods if the respective expense is below the cap.

<sup>13</sup> Under Rule 23c-3 of the 1940 Act, interval funds may charge repurchases fees of up to 2 percent of redemption proceeds, and many CE-FOPFs set the fee at or near this cap. Tender offer funds impose similar fees through their tender documents.

<sup>14</sup> Liquidity costs can be substantial, as the fund must hold a cash sleeve, draw on credit facilities, or sell underlying private fund interests on the secondary market to fund repurchase requests.

commitments with different fee loads.<sup>15</sup> Because all share classes of a given CE-FOPF hold the same underlying portfolios, pre-fee returns are identical across classes and differences in after-cost returns reflect only differences in fees. The annual expense that most commonly varies across share classes is the distribution fee, which is capped at 1 percent. This is likely why we find negligible differences in reported returns across share classes for most funds. However, differences in sales load fees can be large, with institutional share classes typically waiving them altogether. Thus, realized returns for retail investors will be lower than the returns we report. Appendix A provides an example of the fee structure of a CE-FOPF in our sample, illustrating all the different ongoing expense categories and how sales load fees vary across share classes.

#### **2.4. Retail Investor Performance in Private Markets**

Although academic literature largely suggests there are benefits from private market investments, there are several concerns with expanding retail investors' access to them. First, as discussed in section 2.3, private investments generally charge much higher fees than similar public investments, and these fees tend to be even larger for investors committing less capital. Individuals are therefore unlikely to earn the same after-fee returns as institutions even when investing in the same assets. This effect has the potential to be compounded by the additional layer of fees charged by CE-FOPF on top of the already sizeable fees charged by their underlying private fund holdings (Harris et al. 2018).

Second, given the growing amount of capital allocated to private markets, future performance of private market investments may weaken and potentially underperform public market investments, which challenges one of the primary arguments for democratizing access to private assets. This concern has recently been echoed repeatedly in the popular press (e.g., Heal

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<sup>15</sup> Unlike open-end funds, which can issue multiple classes under Rule 18f-3 of the 1940 Act, closed-end funds must obtain exemptive relief from the SEC to do so.

2025; Demos 2025) and is validated by academic research showing the performance of private equity vintages is negatively related to the amount of capital flowing into the industry at the time of fund formation (Kaplan and Schoar 2005; Harris et al. 2014). Thus, it is possible that retail investors are gaining access to private markets at a time when future performance will be weaker than historical performance.

Lastly, there are wide performance differences across private assets within the same investment class (e.g., Harris et al. 2014), and it is unclear whether retail investors will have access to the same quality opportunities available to accredited investors. In fact, recent evidence suggests that even within the accredited investor class, performance of private equity investments differs significantly across individuals, and underperforming fund-of-funds tend to offer lower minimum capital commitments (Balloch et al. 2025). In other words, retail investors may face an adverse selection problem, with the best performing funds catering to large institutional investors, and only the worst performing funds granting access to retail investors.<sup>16</sup>

This concern over differential access can be particularly severe in the context of private fund managers competing for retail investor capital. Retail investors face high information processing costs, often ignoring or misinterpreting financial information (e.g. Blankespoor et al. 2020; Blankespoor, et al. 2019; deHaan et al. 2023). Thus, they may be less likely to consider or understand the complex fee structures and valuation approaches of private funds, and lead fund managers to compete along margins other than performance. For example, fund managers may try to exploit retail investor biases toward sensation- or entertainment-seeking behavior (e.g. Dorn and Sengmueller 2009; Grinblatt and Keloharju 2009). In fact, in the immediate aftermath of the SEC's ADI allowing retail investors to buy shares in CE-FOPFs, new funds have launched that

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<sup>16</sup> This adverse selection problem bears some similarities to that documented in the IPO setting (e.g., Gempesaw et al. 2023).

appear targeted directly towards retail investors, playing up the novelty factor of private market investments.<sup>17</sup>

Irrespective of whether the historical and future performance of CE-FOPFs is comparable to that of the broader private markets, the concerns above suggest that retail investors may underperform other investors in their CE-FOPF investments. On the other hand, as institutional investor allocations to private markets plateau, it is possible that the best performing funds see retail investors as their primary source of new capital and growth (as well as an attractive source of fee revenue). In fact, some institutional investors have raised concerns that private fund managers are channeling investment opportunities to retail-oriented funds (WSJ 2025). Thus, retail investors may gain exposure to comparably attractive private market opportunities to those available to institutions.

### **3. DATA AND DESCRIPTIVE INFORMATION**

#### **3.1. Sample Selection**

Our sample includes closed-end funds holding more than 15 percent of their assets in private funds, which is the threshold the SEC historically used to limit CE-FOPFs to accredited investors. We identify such funds by examining the underlying investments of all SEC registered closed-end funds and calculating the percentage of their assets allocated to private funds. We obtain this information from Portfolio Investments Reports filed with the SEC in form N-PORT, which is a quarterly filing required from all CEFs within 60 days of quarter end. Besides detailing information on each portfolio holding (such as the amount invested and the asset class of each investment), N-PORT also provides fund-level information, including total assets, overall net asset value, fund flows, monthly returns after fees, and distributions for each share class of the fund. N-

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<sup>17</sup> For example, WVB Private Markets Fund, a joint offering by Wellington Management, Vanguard and Blackstone, is a new CE-FOPF promoting itself as giving “individual investors access to institutional-quality portfolios” (see <https://www.wellington.com/en-us/intermediary/investments/investment-solutions/wvb-strategic-alliance>).

PORT filings are our primary data source, enabling us to identify the CE-FOPFs affected by the SEC's 2025 ADI and examine their performance over time.

Form N-PORT has been required of all closed-end funds since 2020. Our sample ends in the fourth quarter of 2025, the last reporting period for which we have complete data.<sup>18</sup> From our initial population of closed-end funds meeting the 15 percent threshold investment in private funds, we remove “feeder funds” that exist only to funnel investment into another fund present in our sample, to avoid double counting net asset holdings. Because we are primarily interested in examining the performance of CE-FOPFs in their selection of underlying private funds, we also remove a small number of these funds that allocate less than half their assets to private funds. Finally, to ensure that we only capture CE-FOPFs per the SEC's definition, we require that all funds in our sample have investor accreditation requirements before August 2025. This step leads us to drop 17 funds investing primarily in private REITs, which are classified as private funds in form N-PORT, but do not count as private funds toward the SEC's definition of CE-FOPFs (see Section 2.2). We identify a total of 116 unique CE-FOPFs meeting these criteria. Figure 1 shows there has been significant growth in both the number of CE-FOPFs and the amount of capital allocated to these vehicles during our sample period. By the end of 2025, there were 94 active CE-FOPFs holding \$85 billion in net assets, a sharp increase from the 51 funds holding \$21 billion in net assets in the first quarter of 2020.<sup>19</sup> This pattern is consistent with an increase in private market allocations and shows that CE-FOPFs are becoming an increasingly important investment vehicle through which investors gain exposure to private markets.

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<sup>18</sup> The limited time series of data following the SEC ADI is the primary barrier to accomplishing our second research objective of comparing funds that expand access and those that do not, but this constraint will become less problematic over the next several quarters.

<sup>19</sup> Our estimates of the amount of capital allocated to CE-FOPFs represent a lower bound, as we require that capital be actively deployed into private funds to enter our sample. Several closed-end funds have the objective of investing in private funds but are still searching for investment opportunities and thus hold their capital in liquid instruments.

We also use each fund’s holdings to understand the distribution of CE-FOPFs across different investment classes. To do so, we match each underlying private fund investment to Form D notices and PitchBook data and classify each investment into categories (e.g., venture capital fund, buyout fund, hedge fund). We then examine the percentage of overall investments that each CE-FOPF allocates to each of these underlying private fund categories and create an overall “fund type” based on the predominant investment class of their underlying holdings. Our sample is thus partitioned into four mutually exclusive fund types: private equity (PE, consisting of funds investing primarily in either venture capital or buyout funds), hedge funds (HF), other funds (OF, primarily investing in funds holding real assets or private credit), and generalists (GN), which have meaningful allocations to private funds across multiple of these categories.<sup>20</sup>

In Table 1, we show the number and total NAV of CE-FOPFs across each fund type throughout our sample period. The most frequent fund types are PE and HF, together representing 74 percent of the total number of funds in our sample. The number and size of HF CE-FOPFs have been mostly stagnant during our sample. In contrast, PE CE-FOPFs have risen sharply from 15 funds holding \$8.1 billion at the start of our sample to 41 funds holding \$64.7 billion by the last quarter of 2025. Generalist funds have also experienced significant growth, but account for a relatively small fraction of CE-FOPFs. Figure 2 depicts trends in total net assets across fund types. Overall, it appears that the growth in CE-FOPFs has been largely driven by the popularity of private equity investments, which is consistent with the large increase in attention devoted to this asset class in recent years.

### 3.2. Descriptive Statistics

Table 2 presents descriptive statistics on the fees charged by the CE-FOPFs in our sample,

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<sup>20</sup> While several CE-FOPFs in our sample have significant allocations to venture capital funds, they typically do not represent most of their investments and are often paired with significant allocations to buyout funds. For that reason, we combine venture capital and buyout funds into a single private equity category.

which we obtain from the latest form N-2 filed by each fund.<sup>21</sup> In Panel A, we report the distribution of each fee category (as a percentage of net assets) across all funds that charge the respective fee. Almost all funds charge management fees and acquired fund fees, whereas only a subset of funds charge other types of fees, such as distribution fees or profit share fees. The average management fee is 1.1 percent, which is comparable to that of private funds investing in hedge funds or private equity funds (Ang et al. 2008; Harris et al. 2018). However, distribution and other fees raise the average (median) annual fee at the CE-FOPF level to 2.8 (2.5) percent. These fees are imposed on top of the underlying acquired fund fees, which add another layer of annual expenses. Overall, annuals fees charged by CE-FOPFs average 6.5 percent, with significant variation across funds, largely driven by differences in acquired fund fees. More than half of CE-FOPFs also do not impose transaction fees (sales load and early exit fees), but these fees can be substantial for those that do, with the median fund charging 3.5 percent in sales load fees and 2 percent for early redemptions.

Panel B provides mean and median values for each fee category across fund types (inclusive of funds not charging the fee). Although management fees are similar for different fund types, there are significant differences in other fee categories. Funds investing in private equity funds have the highest fees at the CE-FOPF level, with the median fund charging 3.05 percent. In contrast, hedge funds are the most expensive underlying fund class, with the median CE-FOPF investing in private funds charging acquired fund fees of 5.5 percent, substantially more than other fund types. Transaction fees are both more common and higher for PE funds. Overall, CE-FOPFs impose significant ongoing fees on shareholders, and many funds penalize frequent transactions with large transaction costs. Our analysis of CE-FOPF performance examines returns net of annual

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<sup>21</sup> We are unable to obtain fee information for one fund in our sample that does not have a form N-2 available on SEC EDGAR.

fees, and thus only accounts for the former. Transaction costs will drive realized performance down and should be kept in mind when interpreting our results.

Table 3 presents descriptive statistics for our sample of 1,694 fund-quarters. Panel A shows that funds hold on average \$606 million in NAV (*Net Assets*), although the distribution is highly right-skewed, with the median fund holding \$201 million. Funds in our sample hold approximately 81.8 percent of their investments in 51 private funds (*PF Percentage* and *PF Count*) and around 3.9 percent of net assets in cash (*Cash*).<sup>22</sup> The number of private fund holdings is also significantly skewed by funds with a large number of holdings, with the median fund holding only 25 underlying private funds. CE-FOPFs with multiple share classes are required to report the returns for each share class separately. We see little difference in the distribution of quarterly returns for share classes with the lowest (*Ret Low Fee*) and highest (*Ret High Fee*) fees, which is not surprising given most funds have only one share class (*# Share Classes*). Quarterly returns for the highest (lowest) fee share class equals 1.8 (1.9) on average and 1.6 (1.7) for the median fund. In our subsequent analyses we consider the historical performance of the share classes with the highest fees (i.e., *Ret High Fee*, hereafter *Ret*), which are likely to be most representative of the share class available to retail investors.

Panel B reports variable means and medians across fund types. Quarterly returns are highest for PE focused funds, with average (median) quarterly returns of 2.3 (1.7) percent, followed by generalist funds with 1.5 (1.7) percent. PE funds also tend to be larger, with the median fund holding \$338 million in net assets. The median HF and GN CE-FOPFs are similar in size and are about half the size of the median PE fund. PE funds also have the highest number of underlying

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<sup>22</sup> The cash reported by CE-FOPFs in form N-PORT excludes positions in liquid cash equivalent investments such as money market funds, which are included as part of the fund's portfolio holdings. For that reason, the true cash position of each fund is typically larger than that reflected in our *Cash* variable, and *PF Percentage* provides a lower bound on the share of non-cash investments held in private funds.

private fund holdings, with the median fund investing in 60 private funds, which is significantly higher than the 22.5 reported by Harris et al. (2018) for non-SEC registered private equity funds-of-funds. However, other CE-FOPF types tend to invest in fewer private funds than PE funds do, more comparable to the figures reported in Harris et al. (2018).<sup>23</sup> Different fund types are more similar along other characteristics, such as cash holdings, percentage invested in private funds, and number of share classes.

## 4. MAIN ANALYSES

### 4.1. CE-FOPF Performance

We first examine the performance of CE-FOPFs during our sample period and compare it to a variety of benchmarks. We begin by plotting the distribution of quarterly returns in Figure 3. CE-FOPFs have generally positive returns during our sample period, except for the first quarter of 2020 and the first three quarters of 2022, and generated the highest returns in late 2020 and during 2021. These patterns largely match the fluctuations in public markets, which is consistent with a positive association between public and private valuations. It also suggests that changes in CE-FOPF valuations are relatively timely. There is significant dispersion in performance across CE-FOPFs, with an interquartile range of several percentage points in quarterly returns, which suggests there are significant differences across fund portfolios.

In Table 4, we compare the performance of CE-FOPFs with that of public and private benchmarks. In Panel A, we show quarterly returns of CE-FOPFs (column 1), the S&P 500 index (column 2), a private fund-of-funds index (column 3), and an overall private markets index (column 4). The last two indexes are available in PitchBook, which aggregates the after-fees

<sup>23</sup> In an untabulated analysis, we find the distribution of *PF Count* for PE CE-FOPFs is bimodal, with about half of these funds holding around 20 underlying funds and the other half holding a much larger number of PE funds, in some cases over 100. These CE-FOPFs with a large number of holdings tend to manage a significant amount of capital and invest in a wide variety of underlying PE funds, including funds located in many different countries.

performance of all private funds it tracks.<sup>24</sup> We focus on the net-asset-value-weighted returns of CE-FOPFs to increase comparability with the benchmark indexes and provide the results graphically in Figure 4. The quarterly returns of the S&P 500 are much more volatile than those of CE-FOPFs and the PitchBook indexes, with lower returns during market declines but higher returns in growth periods, consistent with private funds only updating valuations for a fraction of their holdings in each quarter. CE-FOPF returns tend to be lower than those of the other two private markets benchmarks, especially early in the sample period. The last row of Table 4 Panel A shows that the buy and hold return for CE-FOPFs during our sample period is 71.0 percent, much lower than the 135.5, 98.4 percent, and 105.9 percent returned by the S&P 500, the fund-of-funds index, and the overall private markets index, respectively.

In Panel B, we show the quarterly returns separately for each CE-FOPF type. Consistent with our descriptive statistics in Panel B of Table 3, PE funds (column 1) have the best performance of all fund types, with OF funds (column 3) exhibiting the worst performance during our sample period. However, PE funds have a buy and hold return of 84.2 percent during our sample period, which is still lower than that of the benchmark indexes shown in Panel A. Moreover, column 5 shows that a PitchBook index of private equity funds has returned 135.6 percent during our sample period, which suggests that CE-FOPFs have generally underperformed other comparable private assets.

This difference is primarily driven by underperformance during the post-COVID bull market of late 2020 and most of 2021. The recent performance of PE CE-FOPFs has been comparable to that of the PitchBook PE index, even surpassing it in the last two years of our sample period. The relative improvement in performance of PE CE-FOPFs has occurred as they have

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<sup>24</sup> PitchBook, now a subsidiary of Morningstar, offers data on private companies, funds, investors, and individual deals. Since its establishment in 2007, PitchBook has been increasingly used in private markets research (e.g., Gompers, Gornall, Kaplan, and Strebulaev 2021; Jang and Kaplan 2023).

experienced a large influx of capital, which is surprising given the generally negative relation between capital flows into private equity and subsequent returns (Kaplan and Schoar 2005; Harris et al. 2014). Thus, our pattern of results is consistent with either higher quality fund managers entering the CE-FOPF market in recent years, or a broader decline in private equity performance reducing the gap between CE-FOPFs and non-SEC registered PE funds. Consistent with the latter explanation, returns of private market indexes have lagged those of the S&P 500 by a large margin over the last few years.

Finally, we examine the risk profile of CE-FOPFs. We follow Ewens et al. (2013) and measure CE-FOPF returns against the Fama and French (1993) three-factor model by estimating a time-series regression of net-asset-value-weighted CE-FOPF returns on concurrent and lagged factor returns, using the following model:

$$r_t = \alpha_t + \sum_{k=0}^6 \beta_i^{RMRF} r_{t-k}^{RMRF} + \sum_{k=0}^6 \beta_i^{SMB} r_{t-k}^{SMB} + \sum_{k=0}^6 \beta_i^{HML} r_{t-k}^{HML} + \varepsilon_i \quad (1)$$

where  $t$  represents each month in our sample period.<sup>25</sup> To increase the power of this test while minimizing sample attrition given our relatively short sample period, we use six monthly lags of each factor return, rather than the four quarterly lags used by Ewens et al. (2013).

We present the results in Table 5. We find that, when pooling all fund types together (column 1) CE-FOPFs have a significantly positive market beta of 0.341, but this estimate is much smaller than that documented by previous studies of private equity funds (e.g., Driessen et al. 2012; Ewens et al. 2013; Jegadeesh et al. 2015). To understand whether the small market betas are driven by specific investment classes, we re-estimate Equation 1 for each of our fund types in columns 2 to 5 and find similar market loadings across all fund types. Consistent with the results for buyout

<sup>25</sup> This analysis takes advantage of the monthly granularity available in N-PORT for fund returns. Other fund attributes are reported only at the quarterly level (hence most of our other analyses are conducted at the quarterly level), but returns are available on a monthly basis.

funds in Ewens et al. (2013), we do not find significant loadings on the small-firm and on the book-to-market factor, except for generalist funds. Alphas are positive across all columns and reach statistical significance in the pooled sample of funds and for each fund type other than HF CE-FOPFs. Combined with a moderate market beta, these results lend some support to the claims from advocates of increased private market access that these investments may provide retail investors with diversified exposure to assets with positive risk-adjusted returns. Performance is strongest for PE CE-FOPFs during our sample period, which may help explain the significant increase in capital allocated to these funds in recent years.

Overall, despite underperforming both public and private benchmarks during our sample period, CE-FOPFs appear to provide some diversification benefits and positive risk-adjusted returns, primarily driven by higher returns for PE focused funds.

#### **4.2. Retail Investor Access to CE-FOPF**

We next provide a preliminary examination of the effects of the SEC's 2025 ADI allowing retail investor access to CE-FOPFs. As institutional investors tap out their allocations to private markets, it is possible that retail investor capital will become an important source of continued growth for the industry. We begin by examining how managers of CE-FOPFs have responded to this change. First, we identify funds that existed at the time of the SEC's ADI in August of 2025 and that decided to remove their investor accreditation requirements. To do so, we complement our N-PORT data with information from fund prospectus filings in SEC form N-2. These prospectuses include a section on investor eligibility that lists any investor accreditation requirements and minimum investment amounts. To identify CE-FOPFs that lift their investment accreditation requirements, we manually examine all form N-2 amendments filed with the SEC between August 15, 2025 and March 31, 2026. We find only seven existing CE-FOPFs lift their

investor accreditation requirements during this period, suggesting that, at least in the first few months after the SEC’s ADI, few CE-FOPFs make the choice to expand access to non-accredited retail investors. We label these funds “Switcher” funds, and those which have not yet chosen to drop accreditation requirements “Non-Switcher” funds.

Although the small number of Switcher funds limits the power and scope of empirical analyses, we provide preliminary evidence of differences in attributes and recent performance between these funds and those that remain restricted to accredited investors. We first limit the sample to only quarters prior to the rule change in August of 2025 to focus on the determinants of the decision to allow retail access and avoid any potential effects that retail access may itself have had on Switcher funds. Table 6, Panel A presents separate means and standardized differences between Switchers and Non-Switchers for net assets, the fraction of assets dedicated to private funds, redemptions, sales, returns, and fees. T-tests of differences in means are based on White standard errors.

We find that Switcher funds are larger, hold less of their assets in private funds, and have significantly higher sales after accounting for their size. They appear to have no significant differences in redemptions or quarterly returns and have significantly lower annual fees. This evidence is not consistent with the adverse selection hypothesis that struggling funds with net outflows and poor returns are those most likely to drop accreditation requirements. Instead, it appears larger, more quickly growing funds with lower fees are those most likely to switch.

The small number of Switcher funds and the non-normal distributions of fund attributes can challenge the assumptions needed for reliance on parametric statistical tests. We turn to permutation testing to identify possible differences between Switcher and Non-Switcher funds. Specifically, we randomly shuffle the Switcher and Non-Switcher group labels and reperform the

difference in means test. This provides a pseudo-coefficient based on the null hypotheses that average attributes for Switcher and Non-Switcher funds are identical. We reperform this shuffling 9,999 times and compare each pseudo-coefficient to the true coefficient representing the difference between Switcher and Non-Switcher funds in our sample. Results are presented in Table 6, Panels B and C. Panel B reports the distribution of the pseudo-coefficients as well as the true coefficient from our sample. A Fisher p-value is calculated as the number of pseudo-coefficients more extreme than the true coefficient over all permutations. Results in Panel B are consistent with those in Panel A for redemptions, sales, and fees attributes. Switcher and Non-Switcher funds appear to have very similar levels of redemptions after scaling by net assets. Switchers have significantly higher sales; only 4 of 9,999 permutation tests yielded a pseudo-coefficient greater than the true coefficient (i.e., Fisher p-value that rounds to 0.000). Switcher funds also have significantly lower annual fees than Non-Switcher funds.

In contrast, the non-parametric tests for returns reveal some differences to the findings in Panel A. Using the raw returns variable, it appears that Switcher funds have mildly higher prior returns than the Non-Switchers. The Quarterly Returns histogram in Panel C illustrates a long right tail for the pseudo-coefficients, indicating a very few extreme return observations occasionally yield large coefficients. Reperforming the test on winsorized (at the 1<sup>st</sup> and 99<sup>th</sup> percentiles) quarterly returns variable produces a much more normal distribution of pseudo-coefficients. This test seems to indicate the Switcher's past returns are significantly higher than those of the Non-Switchers. In Figure 5, we confirm this finding by plotting the net-asset-value-weighted buy and hold returns for Switcher and Non-Switcher funds for the eight quarters ending in the second quarter of 2025, the last quarter before the SEC's ADI. We find that Switchers have outperformed Non-Switchers by approximately 16 percentage points over this latest two-year period.

We advise caution in extrapolating our results due to the small number of Switcher funds examined. It may be the case that the early Switchers are significantly better performing funds than those that will switch in the coming months. The standard cautionary note that prior performance may not predict future returns also applies. However, these initial indications moderate concerns that only the worst performing, highest fee CE-FOPFs will drop accreditation requirements to attract retail investor capital.

Finally, we also examine new CE-FOPFs registered with the SEC. Between the SEC's ADI in August of 2025 and March of 2026, we identify 25 new closed-end fund registrations with the investment objective of investing in private funds. For comparison, during our sample period there is an average of only three new CE-FOPFs registering with the SEC each quarter. Moreover, 14 (56 percent) of the new funds registered in this period *have no investor accreditation requirements* (untabulated). Thus, it appears that the SEC's ADI encouraged the formation of an abnormally large number of new CE-FOPFs, and most of these funds are targeting retail investor capital. Although we currently lack sufficient data to examine the characteristics of these new funds, as data becomes available in the coming quarters, we plan to analyze their performance relative to that of CE-FOPFs restricted to accredited investors, as well as the same public and private benchmarks examined above. These analyses should provide additional evidence on the consequences of expanding retail investor access to private markets.

## 5. CONCLUSION

There is currently a push from regulators, politicians, and some private fund managers to expand retail investor access to private markets. However, it remains unclear whether the diversification benefits and potential for higher returns in private assets outweigh the risks that individual investors face in private markets. To understand the impact of allowing retail investors

to participate in private markets, we examine a recent change in regulatory approach by the SEC that allows CE-FOPFs to sell shares directly to all individual investors, rather than the historic limitation to accredited investors. This change in posture allows fund managers discretion over whether to remain restricted to accredited investors, creating adverse selection concerns and raising questions regarding the quality of funds retail investors will obtain access to.

We provide descriptive evidence on the characteristics and historical performance of these CE-FOPFs, which have experienced significant growth in recent years. CE-FOPFs focused on private equity investments account for the largest amount of capital and have driven the growth in CE-FOPFs. Despite their growth, we find that CE-FOPFs have generally underperformed public and private benchmarks, although there is significant performance heterogeneity within and between fund types. Despite this overall underperformance relative to benchmarks, CE-FOPFs appear to provide diversification benefits and have positive risk-adjusted returns during our sample period. When examining fund managers' reactions in the first few months after the SEC's lifting of investor accreditation requirements, we find that only a few existing funds remove those requirements, but there is a dramatic increase in the number of new fund registrations, primarily catering to retail investors. We find that the initial funds choosing to drop accreditation requirements are larger, have higher prior returns, and lower fees. Overall, we take a first step towards understanding an investment vehicle that has the potential to become an important source of retail investor exposure to private markets.

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**APPENDIX A**  
**Example of CE-FOPF Fee Structure**

## **iDIRECT PRIVATE MARKETS FUND**

|                                                                        | <b>Class A</b> | <b>Class I</b> |
|------------------------------------------------------------------------|----------------|----------------|
| <b>TRANSACTION FEES</b>                                                |                |                |
| Maximum sales load (percentage of purchase amount)(1)                  | 3.50%          | None           |
| Maximum repurchase fee(2)                                              | 2.00%          | 2.00%          |
| <b>ANNUAL FUND EXPENSES (as a percentage of the Fund's net assets)</b> |                |                |
| Management Fee                                                         | 0.90%          | 0.90%          |
| Acquired Fund Fees and Expenses(3)                                     | 0.46%          | 0.46%          |
| Interest Payments on Borrowed Funds(4)                                 | 0.13%          | 0.13%          |
| Other Expenses(5)                                                      | 0.42%          | 0.42%          |
| Distribution and Servicing Fee                                         | 0.60%          | —              |
| Total Annual Fund Expenses                                             | 2.51%          | 1.91%          |

This appendix provides an example of the fee structure imposed by one of the CE-FOPFs in our sample. We obtain this fee table from a form N-2 filed by iDirect Private Markets Fund (CIK 1606789) on July 26, 2024.

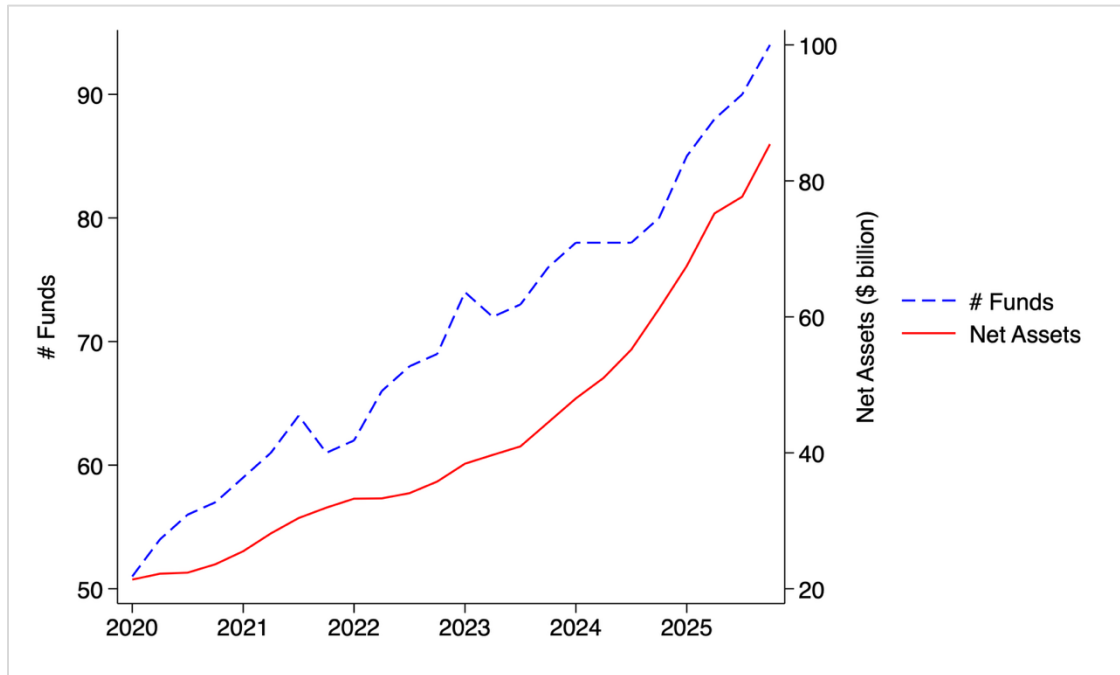
## APPENDIX B

### Variable Definitions

| Variable Name             | Definition                                                                                                                                                                                                                                                                           | Source     |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Net Assets *              | Total net asset value of the fund.                                                                                                                                                                                                                                                   | N-PORT     |
| PF Percentage *           | The percentage of <i>Net Assets</i> of the fund that is invested in private funds.                                                                                                                                                                                                   | N-PORT     |
| PF Count *                | The number of private funds that the fund invests in.                                                                                                                                                                                                                                | N-PORT     |
| Cash *                    | The percentage of <i>Net Assets</i> of the fund that is held in cash.                                                                                                                                                                                                                | N-PORT     |
| Ret Low Fee               | Quarterly total return (after fees, contributions, and distributions) of the fund's share class with the lowest fees.                                                                                                                                                                | N-PORT     |
| Ret High Fee              | Quarterly total return (after fees, contributions, and distributions) of the fund's share class with the highest fees.                                                                                                                                                               | N-PORT     |
| Quarterly Redemptions *   | The quarterly redemptions by investors.                                                                                                                                                                                                                                              | N-PORT     |
| Quarterly Subscriptions * | The quarterly fund subscriptions by investors.                                                                                                                                                                                                                                       | N-PORT     |
| # Share Classes           | The number of share classes held by the fund.                                                                                                                                                                                                                                        | N-PORT     |
| Management Fee *          | Annualized management fee.                                                                                                                                                                                                                                                           | N-2        |
| Distribution Fee *        | Annualized distribution fee.                                                                                                                                                                                                                                                         | N-2        |
| Other Fee *               | Annualized other fees.                                                                                                                                                                                                                                                               | N-2        |
| Annual Fee – CEF Level *  | The summation of <i>management fee</i> , <i>distribution fee</i> and <i>other fee</i> .                                                                                                                                                                                              | N-2        |
| Acquired Fund Fee *       | Annualized fees from underlying funds.                                                                                                                                                                                                                                               | N-2        |
| Annual Fee – Total *      | The summation of <i>Annual Fee – CEF</i> and <i>Acquired Fund Fee</i> .                                                                                                                                                                                                              | N-2        |
| Profit Share *            | Annualized profit share percentage on returns after a set hurdle rate.                                                                                                                                                                                                               | N-2        |
| Sales Load Fee *          | Fees deducted from investments at the time of purchase.                                                                                                                                                                                                                              | N-2        |
| Early Redemption Fee *    | Fees charged on investors for redeeming shares within 12 months of purchase.                                                                                                                                                                                                         | N-2        |
| Ret                       | Net-asset-value-weighted sum of <i>Ret High Fee</i> across funds.                                                                                                                                                                                                                    | N-PORT     |
| Buy and Hold Return       | Buy and hold <i>Ret</i> during our sample period.                                                                                                                                                                                                                                    | N-PORT     |
| PitchBook Benchmarks      | "PE" = private equity; "FoFs" = funds-of-funds; "PM" = overall private markets.                                                                                                                                                                                                      | PitchBook  |
| Switchers                 | Funds that file an amended form N-2 between August 15, 2025 and March 31, 2026 removing investor accreditation requirements.                                                                                                                                                         | N-2        |
| S&P 500 Benchmarks        | Value-weighted quarterly S&P 500 returns.                                                                                                                                                                                                                                            | Compustat  |
| RMRF; SMB; HML            | The RMRF, SMB, and HML factors are defined in Fama and French, 1993 and are obtained from Ken French's website.<br><a href="https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html">https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html</a> | Ken French |

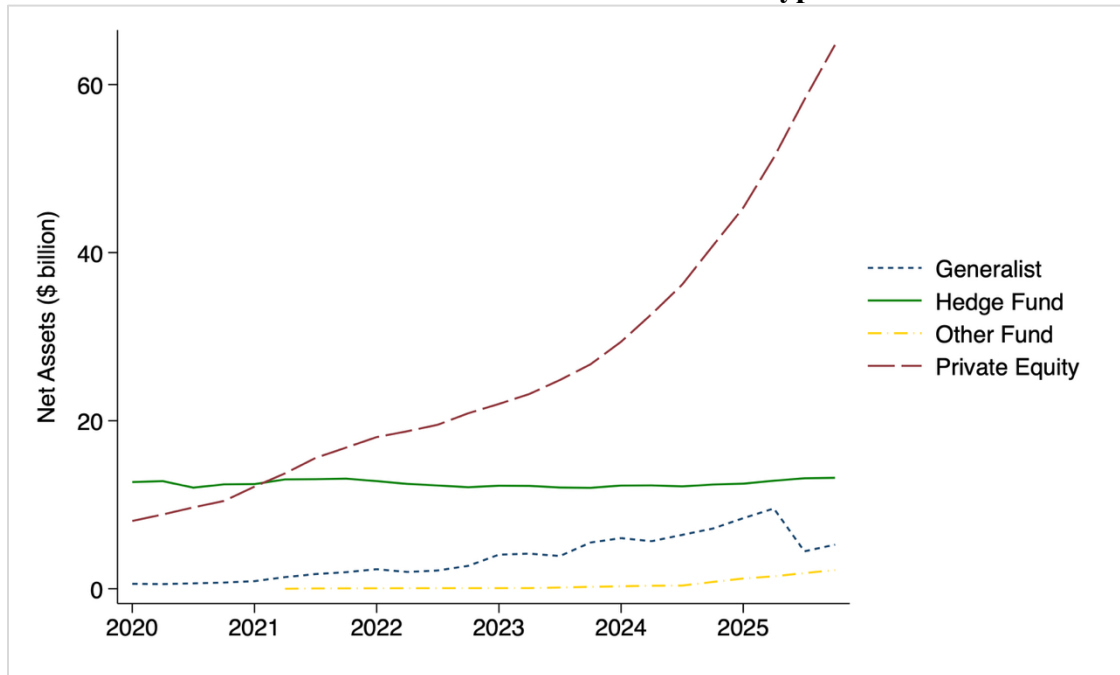
This appendix provides variable definitions and data sources. All variables are at the Fund-Quarter level, unless otherwise specified. \* Indicates variables that are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles.

**FIGURE 1**  
**Trends in CE-FOPFs**



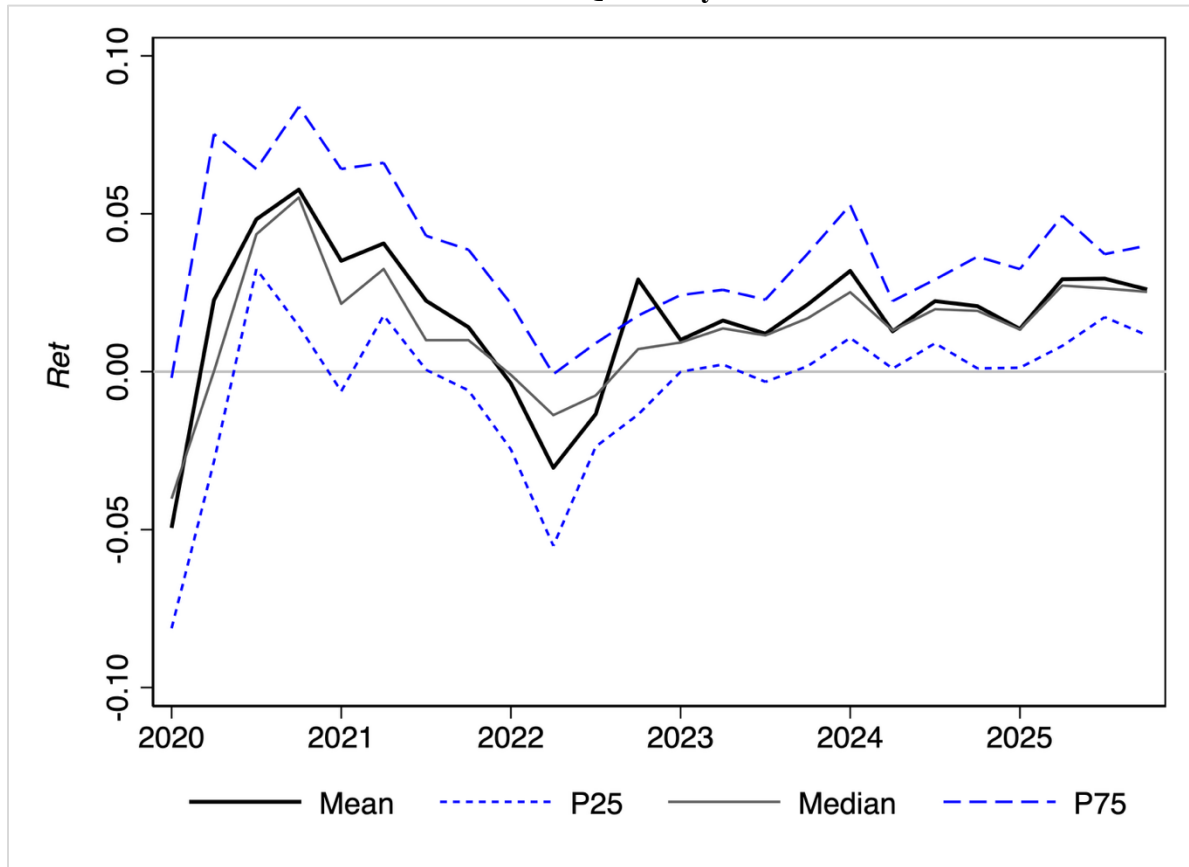
This figure shows trends in the number of SEC registered closed-ended funds-of-private funds (CE-FOPFs) included in our sample and their total net asset holdings each quarter between the first quarter of 2020 and the fourth quarter of 2025.

**FIGURE 2**  
**Trends in Net Assets Across Fund Types**



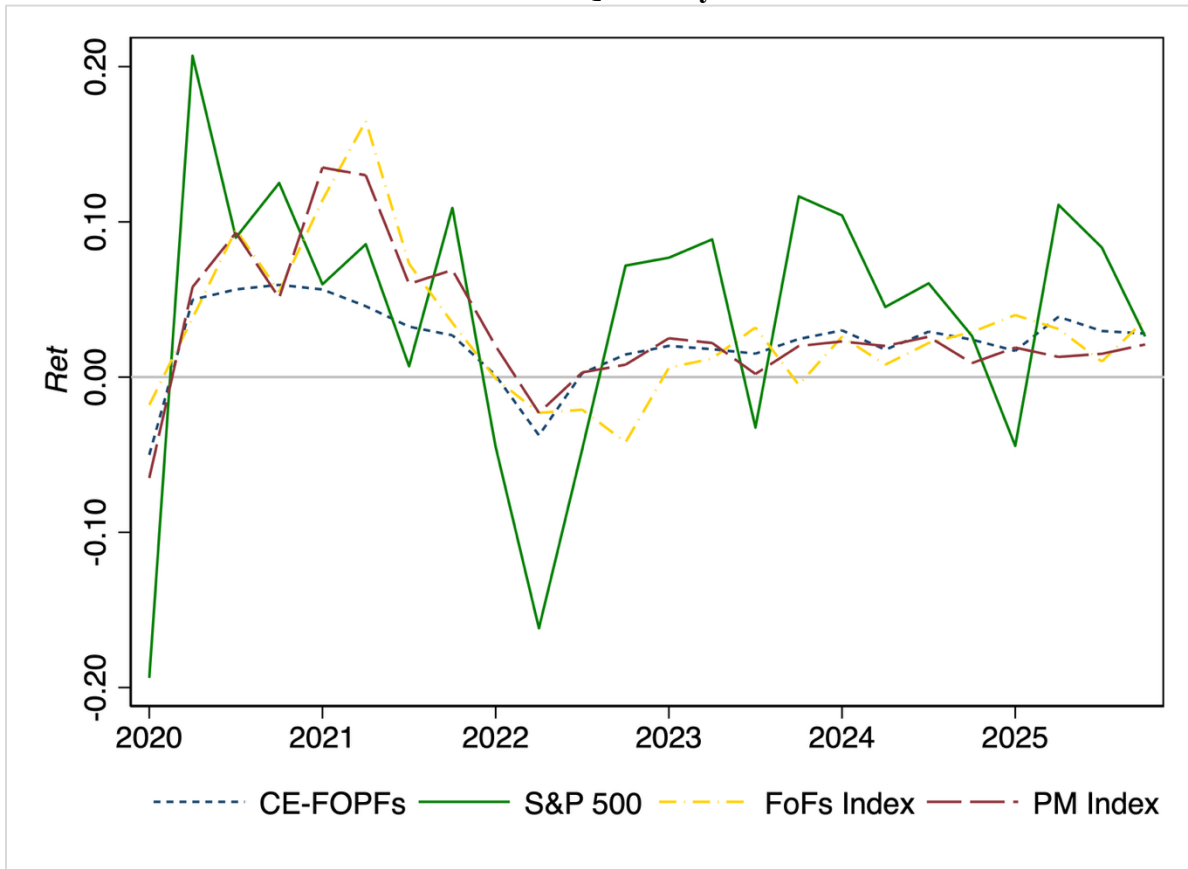
This figure shows trends in the total net assets of SEC registered CE-FOPFs included in our sample each quarter between the first quarter of 2020 and the fourth quarter of 2025, separately for each fund type, classified based on the primary investment class of their underlying fund holdings.

**FIGURE 3**  
**Distribution of Quarterly Returns**



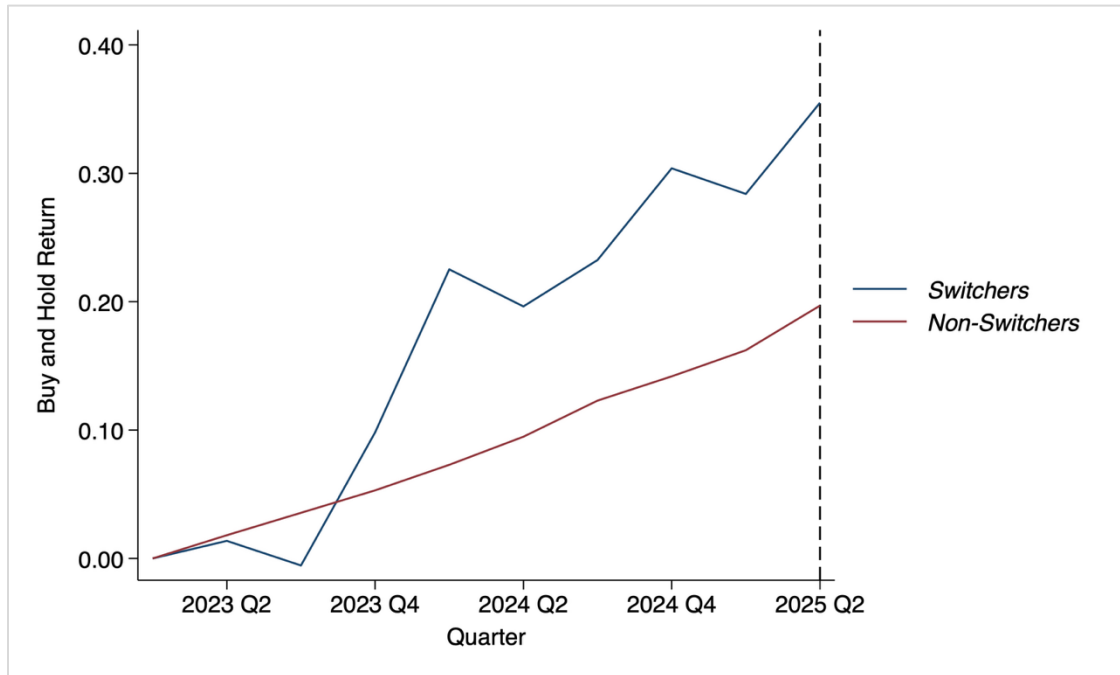
This figure shows the distribution of quarterly returns using the highest fee share class of CE-FOPFs in our sample between the first quarter of 2020 and the fourth quarter of 2025.

**FIGURE 4**  
**Distribution of Quarterly Returns**



This figure shows the distribution of quarterly returns for the highest fee share class of CE-FOPFs in our sample between the first quarter of 2020 and the fourth quarter of 2025, along with those of the S&P 500 index, a private funds-of-funds index (FoFs Index), and an overall private markets index (PM Index). Returns for the FoFs Index and the PM Index are provided by PitchBook.

**FIGURE 5**  
**Recent Performance of Switcher and Non-Switcher CE-FOPFs**



This figure presents net asset value weighted buy and hold returns for the two years ending in the second quarter of 2025 for the highest fee share class of CE-FOPFs that lift investor accreditation requirements (*Switchers*) between August 15 of 2025 (the date of the SEC ADI allowing retail investor access to CE-FOPFs) and March 31 of 2026, and for those that do not (*Non-Switchers*).

**TABLE 1**  
**Trends in CE-FOPFs**

| Quarter               | Fund Type  |                            |           |                            |           |                            |          |                            |           |                            |
|-----------------------|------------|----------------------------|-----------|----------------------------|-----------|----------------------------|----------|----------------------------|-----------|----------------------------|
|                       | All        |                            | PE        |                            | HF        |                            | OF       |                            | GN        |                            |
|                       | # Funds    | Net Assets<br>(\$ billion) | # Funds   | Net Assets<br>(\$ billion) | # Funds   | Net Assets<br>(\$ billion) | # Funds  | Net Assets<br>(\$ billion) | # Funds   | Net Assets<br>(\$ billion) |
|                       | (1)        | (2)                        | (3)       | (4)                        | (5)       | (6)                        | (7)      | (8)                        | (9)       | (10)                       |
| 2020 Q1               | 51         | 21.4                       | 15        | 8.1                        | 32        | 12.7                       | 0        | 0.0                        | 4         | 0.6                        |
| 2020 Q2               | 54         | 22.2                       | 15        | 8.8                        | 34        | 12.8                       | 0        | 0.0                        | 5         | 0.6                        |
| 2020 Q3               | 56         | 22.4                       | 17        | 9.7                        | 33        | 12.0                       | 0        | 0.0                        | 6         | 0.6                        |
| 2020 Q4               | 57         | 23.6                       | 18        | 10.4                       | 33        | 12.4                       | 0        | 0.0                        | 6         | 0.7                        |
| 2021 Q1               | 59         | 25.5                       | 20        | 12.2                       | 32        | 12.5                       | 0        | 0.0                        | 7         | 0.9                        |
| 2021 Q2               | 61         | 28.1                       | 19        | 13.7                       | 32        | 13.0                       | 1        | 0.0                        | 9         | 1.4                        |
| 2021 Q3               | 64         | 30.4                       | 20        | 15.6                       | 31        | 13.0                       | 2        | 0.0                        | 11        | 1.8                        |
| 2021 Q4               | 61         | 31.9                       | 19        | 16.8                       | 30        | 13.1                       | 2        | 0.1                        | 10        | 2.0                        |
| 2022 Q1               | 62         | 33.3                       | 21        | 18.1                       | 29        | 12.8                       | 2        | 0.1                        | 10        | 2.3                        |
| 2022 Q2               | 66         | 33.3                       | 24        | 18.7                       | 30        | 12.5                       | 2        | 0.1                        | 10        | 2.0                        |
| 2022 Q3               | 68         | 34.1                       | 25        | 19.5                       | 30        | 12.3                       | 2        | 0.1                        | 11        | 2.2                        |
| 2022 Q4               | 69         | 35.8                       | 27        | 20.9                       | 29        | 12.1                       | 2        | 0.1                        | 11        | 2.7                        |
| 2023 Q1               | 74         | 38.4                       | 29        | 22.0                       | 30        | 12.3                       | 2        | 0.1                        | 13        | 4.1                        |
| 2023 Q2               | 72         | 39.7                       | 29        | 23.2                       | 29        | 12.2                       | 2        | 0.1                        | 12        | 4.2                        |
| 2023 Q3               | 73         | 40.9                       | 29        | 24.8                       | 29        | 12.1                       | 2        | 0.1                        | 13        | 3.9                        |
| 2023 Q4               | 76         | 44.5                       | 29        | 26.7                       | 29        | 12.0                       | 3        | 0.2                        | 15        | 5.5                        |
| 2024 Q1               | 78         | 48.0                       | 30        | 29.4                       | 29        | 12.3                       | 3        | 0.3                        | 16        | 6.0                        |
| 2024 Q2               | 78         | 51.0                       | 30        | 32.7                       | 29        | 12.3                       | 4        | 0.4                        | 15        | 5.7                        |
| 2024 Q3               | 78         | 55.2                       | 30        | 36.2                       | 29        | 12.2                       | 4        | 0.4                        | 15        | 6.4                        |
| 2024 Q4               | 80         | 61.2                       | 34        | 40.8                       | 27        | 12.4                       | 4        | 0.8                        | 15        | 7.2                        |
| 2025 Q1               | 85         | 67.5                       | 35        | 45.3                       | 28        | 12.5                       | 5        | 1.2                        | 17        | 8.4                        |
| 2025 Q2               | 88         | 75.2                       | 36        | 51.3                       | 29        | 12.9                       | 6        | 1.5                        | 17        | 9.6                        |
| 2025 Q3               | 90         | 77.7                       | 39        | 58.2                       | 27        | 13.2                       | 7        | 1.9                        | 17        | 4.5                        |
| 2025 Q4               | 94         | 85.4                       | 41        | 64.7                       | 28        | 13.2                       | 8        | 2.2                        | 17        | 5.2                        |
| <b># Unique Funds</b> | <b>116</b> |                            | <b>46</b> |                            | <b>40</b> |                            | <b>9</b> |                            | <b>21</b> |                            |

This table shows trends in the number and total net asset holdings of CE-FOPFs included in our sample each quarter between the first quarter of 2020 and the fourth quarter of 2025, separately for each fund type, classified based on the primary investment class of their underlying fund holdings. Our four fund types include private equity (PE; columns 3 and 4), hedge funds (HF, columns 5 and 6), other funds (OF, columns 7 and 8), and generalists (GN, columns 9 and 10).

**TABLE 2**  
**CE-FOPF Fees**

**Panel A: All CE-FOPFs**

|                               | <b>N</b> | <b>%Funds</b> | <b>Mean</b> | <b>Std dev</b> | <b>P10</b> | <b>P25</b> | <b>Median</b> | <b>P75</b> | <b>P90</b> |
|-------------------------------|----------|---------------|-------------|----------------|------------|------------|---------------|------------|------------|
| <i>Management Fee</i>         | 115      | 100%          | 1.13        | 0.42           | 0.55       | 0.85       | 1.20          | 1.40       | 1.50       |
| <i>Distribution Fee</i>       | 55       | 48%           | 1.13        | 1.11           | 0.25       | 0.70       | 0.75          | 0.85       | 3.75       |
| <i>Other Fee</i>              | 115      | 100%          | 1.15        | 1.08           | 0.26       | 0.50       | 0.89          | 1.50       | 2.39       |
| <i>Annual Fee – CEF Level</i> | 115      | 100%          | 2.82        | 1.73           | 1.33       | 1.61       | 2.51          | 3.15       | 4.65       |
| <i>Acquired Funds Fee</i>     | 107      | 93%           | 3.96        | 4.87           | 0.50       | 0.75       | 2.41          | 5.60       | 8.28       |
| <i>Annual Fee – Total</i>     | 115      | 100%          | 6.51        | 5.06           | 2.54       | 3.23       | 4.50          | 7.71       | 13.43      |
| <i>Profit Share</i>           | 28       | 24%           | 11.79       | 2.95           | 10.00      | 10.00      | 10.00         | 15.00      | 15.00      |
| <i>Sales Load Fee</i>         | 56       | 49%           | 3.67        | 1.48           | 2.00       | 3.00       | 3.50          | 3.50       | 6.00       |
| <i>Early Redemption Fee</i>   | 53       | 46%           | 3.17        | 2.76           | 2.00       | 2.00       | 2.00          | 2.00       | 10.00      |

**Panel B: Means and medians across fund types**

|                               | <b>Fund Type</b> |               |             |               |             |               |             |               |             |               |
|-------------------------------|------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|
|                               | <b>All</b>       |               | <b>PE</b>   |               | <b>HF</b>   |               | <b>OF</b>   |               | <b>GN</b>   |               |
|                               | <b>Mean</b>      | <b>Median</b> | <b>Mean</b> | <b>Median</b> | <b>Mean</b> | <b>Median</b> | <b>Mean</b> | <b>Median</b> | <b>Mean</b> | <b>Median</b> |
| <i>Management Fee</i>         | 1.13             | 1.20          | 1.25        | 1.25          | 1.04        | 1.00          | 0.97        | 1.10          | 1.09        | 1.00          |
| <i>Distribution Fee</i>       | 0.54             | 0.00          | 0.78        | 0.70          | 0.22        | 0.00          | 0.38        | 0.25          | 0.67        | 0.00          |
| <i>Other Fee</i>              | 1.15             | 0.89          | 1.46        | 1.05          | 0.80        | 0.61          | 1.16        | 1.03          | 1.15        | 0.90          |
| <i>Annual Fee – CEF Level</i> | 2.82             | 2.51          | 3.49        | 3.05          | 2.06        | 1.76          | 2.51        | 2.51          | 2.91        | 2.22          |
| <i>Acquired Funds Fee</i>     | 3.69             | 1.74          | 1.61        | 0.84          | 7.17        | 5.51          | 0.84        | 0.72          | 2.98        | 2.40          |
| <i>Annual Fee – Total</i>     | 6.51             | 4.50          | 5.10        | 3.98          | 9.23        | 7.49          | 3.34        | 3.23          | 5.89        | 4.20          |
| <i>Profit Share</i>           | 2.87             | 0.00          | 5.00        | 0.00          | 1.92        | 0.00          | 1.11        | 0.00          | 0.71        | 0.00          |
| <i>Sales Load Fee</i>         | 1.79             | 0.00          | 2.70        | 3.50          | 1.04        | 0.00          | 1.50        | 0.00          | 1.31        | 0.00          |
| <i>Early Redemption Fee</i>   | 1.46             | 0.00          | 1.96        | 2.00          | 0.77        | 0.00          | 0.22        | 0.00          | 2.19        | 2.00          |

This table presents descriptive statistics of the fees charged by 115 of the 116 CE-FOPFs included in our sample between the first quarter of 2020 and the fourth quarter of 2025. Panel A shows the distribution of fees across different categories for all CE-FOPFs that charge each respective category of fees. Panel B shows average and median values across all funds of each fund type. Our four fund types include private equity (PE), hedge funds (HF), other funds (OF), and generalist (GN). See Appendix B for variable definitions.

**TABLE 3**  
**Descriptive Statistics**

**Panel A: All CE-FOPFs**

|                        | <b>N</b> | <b>Mean</b> | <b>Std dev</b> | <b>P10</b> | <b>P25</b> | <b>Median</b> | <b>P75</b> | <b>P90</b> |
|------------------------|----------|-------------|----------------|------------|------------|---------------|------------|------------|
| <i>Net Assets</i>      | 1,694    | 0.606       | 1.397          | 0.031      | 0.081      | 0.201         | 0.449      | 1.178      |
| <i>PF Percentage</i>   | 1,694    | 81.802      | 19.975         | 55.333     | 76.637     | 88.847        | 95.223     | 98.412     |
| <i>PF Count</i>        | 1,694    | 50.786      | 66.920         | 8.000      | 14.000     | 25.000        | 63.000     | 133.000    |
| <i>Cash</i>            | 1,694    | 0.039       | 0.082          | 0.000      | 0.000      | 0.006         | 0.036      | 0.115      |
| <i>Ret Low Fee</i>     | 1,694    | 0.019       | 0.063          | -0.026     | -0.001     | 0.017         | 0.038      | 0.064      |
| <i>Ret High Fee</i>    | 1,694    | 0.018       | 0.063          | -0.026     | -0.001     | 0.016         | 0.036      | 0.064      |
| <i># Share Classes</i> | 1,694    | 1.559       | 1.026          | 1.000      | 1.000      | 1.000         | 2.000      | 3.000      |

**Panel B: Means and medians across fund types**

|                        | <b>Fund Type</b> |               |             |               |             |               |             |               |
|------------------------|------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|
|                        | <b>PE</b>        |               | <b>HF</b>   |               | <b>OF</b>   |               | <b>GN</b>   |               |
|                        | <b>Mean</b>      | <b>Median</b> | <b>Mean</b> | <b>Median</b> | <b>Mean</b> | <b>Median</b> | <b>Mean</b> | <b>Median</b> |
| <i>Net Assets</i>      | 0.995            | 0.338         | 0.419       | 0.151         | 0.152       | 0.046         | 0.313       | 0.165         |
| <i>PF Percentage</i>   | 80.085           | 86.550        | 87.265      | 91.811        | 69.385      | 83.583        | 74.508      | 79.776        |
| <i>PF Count</i>        | 88.171           | 60.000        | 24.614      | 20.000        | 14.349      | 13.000        | 41.908      | 23.000        |
| <i>Cash</i>            | 0.048            | 0.004         | 0.033       | 0.009         | 0.051       | 0.004         | 0.034       | 0.007         |
| <i>Ret Low Fee</i>     | 0.024            | 0.019         | 0.015       | 0.015         | 0.013       | 0.014         | 0.017       | 0.019         |
| <i>Ret High Fee</i>    | 0.023            | 0.017         | 0.015       | 0.015         | 0.012       | 0.014         | 0.015       | 0.017         |
| <i># Share Classes</i> | 1.921            | 1.000         | 1.251       | 1.000         | 1.714       | 2.000         | 1.500       | 1.000         |

This table presents descriptive statistics for the 1,694 quarterly observations of CE-FOPFs included in our sample between the first quarter of 2020 and the fourth quarter of 2025. Panel A shows statistics for all CE-FOPFs and Panel B shows average and median values separately for each fund type. Our four fund types include private equity (PE), hedge funds (HF), other funds (OF), and generalist (GN). See Appendix B for variable definitions.

**TABLE 4**  
**CE-FOPFs Historical Performance**  
**Panel A: All CE-FOPFs against public and private indexes**

|                                | CE-FOPFs     | S&P 500      | FoFs Index   | PM Index     |
|--------------------------------|--------------|--------------|--------------|--------------|
| Quarter                        | (1)          | (2)          | (3)          | (4)          |
| 2020 Q1                        | -0.050       | -0.194       | -0.018       | -0.065       |
| 2020 Q2                        | 0.050        | 0.207        | 0.038        | 0.058        |
| 2020 Q3                        | 0.056        | 0.090        | 0.095        | 0.093        |
| 2020 Q4                        | 0.059        | 0.125        | 0.055        | 0.051        |
| 2021 Q1                        | 0.056        | 0.060        | 0.114        | 0.135        |
| 2021 Q2                        | 0.046        | 0.086        | 0.165        | 0.130        |
| 2021 Q3                        | 0.032        | 0.007        | 0.073        | 0.060        |
| 2021 Q4                        | 0.027        | 0.109        | 0.035        | 0.069        |
| 2022 Q1                        | 0.001        | -0.045       | -0.001       | 0.020        |
| 2022 Q2                        | -0.037       | -0.162       | -0.023       | -0.023       |
| 2022 Q3                        | 0.003        | -0.046       | -0.021       | 0.003        |
| 2022 Q4                        | 0.015        | 0.072        | -0.042       | 0.008        |
| 2023 Q1                        | 0.020        | 0.077        | 0.006        | 0.025        |
| 2023 Q2                        | 0.018        | 0.089        | 0.012        | 0.022        |
| 2023 Q3                        | 0.015        | -0.033       | 0.032        | 0.002        |
| 2023 Q4                        | 0.025        | 0.116        | -0.005       | 0.020        |
| 2024 Q1                        | 0.030        | 0.104        | 0.026        | 0.023        |
| 2024 Q2                        | 0.018        | 0.045        | 0.008        | 0.020        |
| 2024 Q3                        | 0.029        | 0.060        | 0.022        | 0.026        |
| 2024 Q4                        | 0.024        | 0.027        | 0.029        | 0.009        |
| 2025 Q1                        | 0.017        | -0.044       | 0.040        | 0.019        |
| 2025 Q2                        | 0.039        | 0.111        | 0.031        | 0.013        |
| 2025 Q3                        | 0.030        | 0.084        | 0.010        | 0.015        |
| 2025 Q4                        | 0.028        | 0.026        | 0.037        | 0.021        |
| <b>Buy and Hold<br/>Return</b> | <b>0.710</b> | <b>1.355</b> | <b>0.984</b> | <b>1.059</b> |

TABLE 4 (continued)

## Panel B: Returns across fund types

| Quarter                    | Fund Type    |              |              |              |              |
|----------------------------|--------------|--------------|--------------|--------------|--------------|
|                            | PE           | HF           | OF           | GN           | PE Index     |
|                            | <i>Ret</i>   |              |              |              |              |
|                            | (1)          | (2)          | (3)          | (4)          | (5)          |
| 2020 Q1                    | -0.108       | -0.014       | 0.000        | -0.044       | -0.082       |
| 2020 Q2                    | 0.091        | 0.025        | 0.000        | -0.025       | 0.093        |
| 2020 Q3                    | 0.071        | 0.045        | 0.000        | 0.051        | 0.133        |
| 2020 Q4                    | 0.060        | 0.057        | 0.000        | 0.100        | 0.045        |
| 2021 Q1                    | 0.063        | 0.052        | 0.000        | 0.037        | 0.176        |
| 2021 Q2                    | 0.067        | 0.022        | 0.038        | 0.059        | 0.149        |
| 2021 Q3                    | 0.044        | 0.019        | 0.017        | 0.033        | 0.068        |
| 2021 Q4                    | 0.042        | 0.007        | 0.034        | 0.032        | 0.077        |
| 2022 Q1                    | 0.015        | -0.021       | 0.034        | 0.017        | 0.012        |
| 2022 Q2                    | -0.037       | -0.043       | 0.025        | -0.006       | -0.037       |
| 2022 Q3                    | 0.014        | -0.015       | -0.008       | 0.001        | 0.001        |
| 2022 Q4                    | 0.029        | -0.011       | -0.014       | 0.016        | 0.016        |
| 2023 Q1                    | 0.019        | 0.024        | 0.002        | 0.012        | 0.036        |
| 2023 Q2                    | 0.025        | 0.006        | -0.003       | 0.016        | 0.029        |
| 2023 Q3                    | 0.014        | 0.014        | 0.014        | 0.023        | 0.003        |
| 2023 Q4                    | 0.022        | 0.030        | 0.016        | 0.025        | 0.030        |
| 2024 Q1                    | 0.017        | 0.066        | 0.013        | 0.020        | 0.025        |
| 2024 Q2                    | 0.020        | 0.005        | 0.016        | 0.034        | 0.028        |
| 2024 Q3                    | 0.034        | 0.018        | 0.018        | 0.027        | 0.028        |
| 2024 Q4                    | 0.016        | 0.054        | 0.034        | 0.019        | 0.010        |
| 2025 Q1                    | 0.015        | 0.018        | 0.016        | 0.026        | 0.027        |
| 2025 Q2                    | 0.046        | 0.021        | 0.029        | 0.028        | 0.005        |
| 2025 Q3                    | 0.028        | 0.040        | 0.008        | 0.029        | 0.010        |
| 2025 Q4                    | 0.032        | 0.009        | 0.022        | 0.037        | 0.025        |
| <b>Buy and Hold Return</b> | <b>0.842</b> | <b>0.516</b> | <b>0.359</b> | <b>0.738</b> | <b>1.356</b> |

This table presents quarterly returns (*Ret*) and overall buy and hold returns for CE-FOPFs included in our sample and for public and private benchmarks between the first quarter of 2020 and the fourth quarter of 2025. Panel A shows returns for all CE-FOPFs (column 1), the S&P 500 (column 2), a private funds-of-funds index (FoFs Index; column 3), and an overall private markets index (PM Index; column 4). Panel B shows returns separately for each fund type (columns 1 to 4) and for an index of private equity funds (PE Index; column 5). Our four fund types include private equity (PE) hedge funds (HF), other funds (OF), and generalist (GN). Returns for the FoFs Index, PM Index, and PE Index are provided by PitchBook.

**TABLE 5**  
**CE-FOPFs Risk Factor Exposures**

|                                 | <b>Fund Type</b>   |                   |                    |                   |                    |
|---------------------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
|                                 | <b>All</b>         | <b>PE</b>         | <b>HF</b>          | <b>OF</b>         | <b>GN</b>          |
|                                 | (1)                | (2)               | (3)                | (4)               | (5)                |
| <b><math>\alpha</math></b>      | 0.417***<br>(2.88) | 0.533*<br>(2.00)  | 0.164<br>(1.24)    | 0.333*<br>(2.00)  | 0.404***<br>(2.67) |
| <b><math>\Sigma</math> RMRF</b> | 0.341***<br>(4.31) | 0.353**<br>(2.47) | 0.388***<br>(5.08) | 0.165*<br>(1.81)  | 0.373***<br>(4.46) |
| <b><math>\Sigma</math> SMB</b>  | 0.042<br>(0.44)    | 0.023<br>(0.14)   | 0.057<br>(0.48)    | -0.111<br>(-0.88) | -0.014<br>(-0.12)  |
| <b><math>\Sigma</math> HML</b>  | 0.020<br>(0.35)    | 0.076<br>(0.67)   | -0.037<br>(-0.79)  | 0.073<br>(1.06)   | 0.158**<br>(2.38)  |
| N (Months)                      | 72                 | 72                | 72                 | 57                | 72                 |
| Adj R <sup>2</sup>              | 0.631              | 0.523             | 0.485              | 0.071             | 0.403              |

This table presents the results of monthly time-series regressions of CE-FOPF returns on the Fama and French (1993) three-factor model, with up to six-month lags of each factor (see Equation 1). Loadings on contemporaneous and lagged value are then summed for each factor, as in Ewens et al. (2013). Column 1 shows results of regressions with all CE-FOPFs and columns 2 to 5 shows results separately for each fund type. Our four fund types include private equity (PE), hedge funds (HF), other funds (OF), and generalist (GN). \*, \*\*, and \*\*\* represent p-values from two-tailed tests below 0.10, 0.05, and 0.01, respectively.

**TABLE 6**  
**Funds that “Switch”**

**Panel A: Differences in Means**

|                                           | Switcher Mean | Non-Switcher Mean | Standardized Difference<br>(S – NS)/ $\sigma$ |
|-------------------------------------------|---------------|-------------------|-----------------------------------------------|
| <i>Net Assets</i>                         | 835,700       | 592,400           | 0.174**                                       |
| <i>PF Percentage</i>                      | 78.101        | 82.24             | -0.208***                                     |
| <i>Quarterly Redemptions</i>              | 26,179        | 12,702            | 0.388**                                       |
| <i>Quarterly Redemptions / Net Assets</i> | 0.036         | 0.036             | -0.000                                        |
| <i>Quarterly Sales</i>                    | 55,990        | 41,441            | 0.139                                         |
| <i>Quarterly Sales / Net Assets</i>       | 0.146         | 0.078             | 0.400***                                      |
| <i>Quarterly Return</i>                   | 0.027         | 0.017             | 0.167                                         |
| <i>Quarterly Return (1,99)</i>            | 0.026         | 0.017             | 0.225                                         |
| <i>Annual Fee – Total</i>                 | 5.857         | 7.200             | -0.238***                                     |

**Panel B: Non-parametric permutation tests**

|                                           | P1     | P25    | Median | P75   | P99   | True<br>Coefficient | Fisher<br>p-value |
|-------------------------------------------|--------|--------|--------|-------|-------|---------------------|-------------------|
| <i>Quarterly Redemptions / Net Assets</i> | -0.016 | -0.005 | -0.001 | 0.005 | 0.020 | -0.001              | 0.506             |
| <i>Quarterly Sales / Net Assets</i>       | -0.036 | -0.013 | -0.001 | 0.011 | 0.044 | 0.068               | 0.000***          |
| <i>Quarterly Return</i>                   | -0.012 | -0.004 | -0.001 | 0.003 | 0.021 | 0.010               | 0.066*            |
| <i>Quarterly Return (1,99)</i>            | -0.010 | -0.003 | 0.000  | 0.003 | 0.010 | 0.009               | 0.011**           |
| <i>Annual Fee – Total</i>                 | -1.192 | -0.383 | -0.004 | 0.380 | 1.401 | -1.343              | 0.004***          |

This table presents differences in attribute means for funds that expand access to retail investors (Switchers) and those that do not (Non-Switchers). Variables are defined in Appendix A. Panel A reports standardized differences using the population standard deviation for each attribute, with significance determined by t-tests using White standard errors. Panel B resents the distribution of pseudo-coefficients from 9,999 permutations of the difference in means tests after shuffling the labels of Switcher and Non-Switcher, as well as Fisher p-values (computed as the number of pseudo-coefficients more extreme than the true difference in means). Panel C (below) presents the histograms of pseudo-coefficients from the 9,999 permutations, as well as the value of the true difference in means coefficient (represented as the red vertical line). \*, \*\*, and \*\*\* represent p-values from two-tailed tests below 0.10, 0.05, and 0.01 (in Panel A) and at the same levels for Fisher p-values (in Panel B).

### Panel C: Histograms of Tests

