

# Selling to Yourself: Continuation Funds in Private Equity

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## Abstract

Continuation funds (CFs) are a recent financial innovation in which PE managers raise new funds to purchase assets from their existing funds. CFs have surged in popularity, accounting for 9% of PE exits in 2024 and raising twice as much as US IPOs. We show that CFs emerge when LPs are more heterogeneous and fund managers have earned carried interest in legacy funds. Assets transferred to CFs are better performing and larger than other assets in legacy funds. LPs overwhelmingly choose to exit rather than invest in CFs, the decision that appears to be driven by time-varying LP liquidity demands.

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## 1. Introduction

Private equity (PE) has become one of the most important asset classes in recent years. PE funds are typically structured with a contractual ten-year lifespan. In recent years, however, this term has become more aspirational than realized. A dollar invested in PE in 1994 had about \$0.20 of unrealized value in private companies ten years later (2004), whereas a dollar invested in 2014 still had \$0.68 of unrealized value by 2024.<sup>1</sup>

[Figure 1 about here]

This rise in long-held, unexited investments poses significant challenges for the limited partners (LPs) who invest in PE. For pension plans, these long-lived funds can outlast not only the trustees who approved them but even the retirees they were meant to serve. Importantly for the functioning of the PE industry, many LPs structure their PE portfolios on the assumption that capital calls from younger funds will be financed by distributions from mature funds, leading to cash shortfalls when expected exits fail to materialize.

One of the most significant innovations in PE is the rise of continuation funds (CFs), also known as continuation vehicles, which have emerged as a partial response to these liquidity challenges. In a CF transaction, a fund manager (General Partner, or GP) forms a new vehicle to purchase selected assets from one or more existing “legacy” funds. The legacy fund’s LPs are offered a choice: they may “roll” their interests into the new vehicle or exit at a price negotiated by the GP (while retaining exposure to non-transferred assets in the legacy fund). The capital used to buy out the exiting LPs’ stakes is typically raised from secondary-focused funds, although existing LPs, new outside investors, and sometimes the managing PE firm’s partners also participate.

This structure has surged in popularity in recent years. Our data show that while only five CFs were launched in 2018, more than 100 were launched in each of 2024 and 2025. The total transaction value of CF launches in 2024 alone was approximately \$75 billion, accounting for 9% of the \$835 billion in PE- and VC-backed exits—and more than twice the \$32 billion raised in U.S. IPOs.<sup>2</sup>

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<sup>1</sup> Figure 1 illustrates this by plotting the RVPI of funds at the ten-year mark, using data from MSCI-Burgiss.

<sup>2</sup> Continuation fund transaction values are based on our proprietary dataset. Total PE- and VC-backed exit value is from PitchBook, and U.S. IPO proceeds are from Securities and Exchange Commission data, <https://www.sec.gov/data-research/statistics-data-visualizations/initial-public-offerings-ipos>. Evercore Private Capital Advisory (2025) reports comparable estimates.

CFs are a popular financial innovation that allows liquidity-constrained investors to generate liquidity from long-held assets. Yet the CF structure is controversial. GPs represent and earn compensation from both the selling legacy fund and the buying CF, creating conflicts over pricing, fees, and performance disclosure. LPs are often required to make rapid exit-or-roll decisions despite limited information and, in many cases, limited internal capacity to evaluate the transaction. In some instances, LPs have even blocked CF transactions.<sup>3</sup> These tensions raise fundamental questions about the economic role of CFs and their place in the evolving PE ecosystem.

We seek to understand the phenomenon of CFs. What drives their creation? Which assets are transferred (and which are left behind)? What problems do they solve for LPs? Why do some LPs choose to roll into them while others exit? Why are LPs willing to bear the additional fees and transaction costs of forming a new fund managed by the same GPs and holding largely the same assets? And why have CFs surged in popularity in recent years? Answers to these questions can provide insights on the design and use of CFs, and also on the frictions that shape capital allocation by large institutional investors and the broader functioning of the PE industry.

We present a model in which a GP controls an asset that can be sold, moved into a CF, or retained through a fund extension (beyond the one- to two-year extension permitted under the LP agreement). A CF or fund extension requires both LP approval and GP consent; otherwise, the asset is sold. This decision is complicated by diverging preferences over early or late exits. LPs themselves have heterogeneous preferences over exit timing, a proxy for real-world differences both in liquidity needs and in internal frictions related to monitoring, risk tolerance, or performance attribution. The GP has her own time preferences, shaped by career concerns, compensation structures, and personal impatience.

Efficient outcomes are hindered not only by incentive misalignment between the GP and LPs, but also by private information the GP has about the value created by keeping the asset private. Because of this asymmetric information, LPs rationally block CF proposals from managers whose compensation structures bias them toward delaying exits. Doing so blocks CFs sought by managers whose only hope of carried interest is gambling for redemption, because such managers may seek a CF even when their assets have mediocre growth prospects. CFs emerge only when GPs with high-growth assets commit meaningful capital to the continuation vehicle. This skin in the game

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<sup>3</sup> See, for example, [Scoop: Shasta Venture fails to get approval for continuation fund](#).

enables GPs with high-potential assets to credibly signal asset quality and separate from managers who would otherwise mimic to extract CF fees.

Time-varying LP heterogeneity affects CF formation by making liquidity choices more valuable than roll decisions. A CF allows the patient LPs to stay and the impatient ones to exit, which generates more value if the LP preferences are more varied. Higher underlying asset growth potential increases the likelihood of CF formation by raising the value of continued private ownership. Finally, deeper and more competitive secondary markets raise CF activity by improving exit prices and increasing the share of LPs choosing to cash out.

We test these predictions using a hand-collected dataset of 532 CFs. Our data are collected from Preqin, PitchBook, regulatory filings, industry publications, as well as through manual searches. To our knowledge, this is the largest dataset of CFs assembled to date. Importantly, our analysis extends beyond the fund level by leveraging confidential asset-level data from the StepStone Group. The availability of non-anonymized data and quarterly interim valuations for many individual investments allows us to examine continuation transactions at a granular level.

Using this data, we first consider the characteristics of the legacy funds that form CFs. We find that CFs are typically created near the end of the legacy fund's life, with the average transaction occurring about eight years after the legacy fund's inception. This timing is consistent both with LPs' anticipated cash flow needs and with the ten-year fund lifespan's role in mitigating agency and information frictions (see Metrick and Yasuda, 2010; Axelson, Strömberg, and Weisbach, 2009; Diamond, 1989; Gompers and Lerner, 1996). Consistent with the model, legacy funds with a more diverse investor base are significantly more likely to launch CFs, supporting the role of LP heterogeneity in driving these structures.

Funds with stronger performance are significantly more likely to launch CFs, consistent with the model's prediction that high-quality GPs are more likely to form continuation vehicles. In particular, legacy funds whose GPs are in the money for carried interest (i.e., with IRRs exceeding 8%) are significantly more likely to launch CFs. In addition, larger funds are more likely to spawn a CF. Consistent with the model's signaling mechanism, GPs typically roll much or all of their carried interest into the CF, with the median GP ownership stake increasing from 3% to 6%.

Buyout funds are much more likely to spin off CFs than venture capital (VC) funds. This finding could be driven by either a higher degree of asymmetric information in VC or by the challenges of transferring minority portfolio company stakes. Geographically, CFs are heavily

concentrated in the United States, reflecting both the depth of the U.S. PE markets and the more advanced development of the GP-led secondaries ecosystem. This pattern fits the broader historical trend of U.S. leadership in financial innovation, from VC partnerships (Sahlman, 1990; Gompers and Lerner, 1999) to leveraged buyouts and PE structures (Kaplan and Strömberg, 2009). These patterns are consistent with deep capital markets and a supportive legal environment fostering financial innovation (La Porta et al., 1998).

Second, we examine which assets are transferred into CFs and which are left in the legacy fund. CFs most often involve a single portfolio company that has already experienced substantial value growth. The model suggests that these are likely to be assets where deal-level carried interest has been earned or assets where the GP appears to have special ability to add value. The assets destined for CFs tend to be better performers, with higher residual-value-to-paid-in (RVPI) and internal rate of return (IRR) than the legacy fund's other portfolio firms. In addition, portfolio firms included in CFs tend to be larger deals than average in the legacy fund, consistent with either fixed costs of CF initiation or asymmetric information frictions.

Third, we study LP commitment decisions. The vast majority of legacy fund LPs choose to exit rather than roll, with only about 5% of LPs rolling their investments into CFs. The fraction of public LPs choosing to roll has fallen sharply, from roughly 8% in 2018 to around 2% in 2025. The increase in CF formation alongside a decline in rollover rates is consistent with a more competitive secondary market: higher exit prices make CF transactions more likely to clear and increase LP incentives to sell rather than roll. LPs are also more likely to roll when their received PE distributions exceed made contributions, consistent with LPs' liquidity needs. The composition of investors changes markedly when assets move from a legacy fund to a CF. While legacy funds are dominated by traditional institutions such as pension plans, CFs are generally financed by specialized PE funds of funds and wealth management firms. Financial intermediaries represent just 14% of legacy LPs but account for two-thirds of new CF investors. Often, the capital is provided by specialized "secondary funds" raised specifically to invest in CFs and LP-led secondaries.

LP rollover decisions exhibit strong persistence: an LP that rolls over one stake in a given year is significantly more likely to roll over its other stakes. This persistence could reflect either institutional policies or LP-specific liquidity shocks. We examine whether rollover behavior is

better explained by fixed investor tendencies or by investor-time variation. Our results favor the latter explanation, highlighting the role of time-varying LP liquidity needs.

Finally, we provide preliminary evidence on CF performance. Because most CFs are recent and remain largely unrealized, definitive conclusions are premature. In our data, CFs outperform vintage-year and fund-class benchmarks in terms of both total value to paid-in capital (TVPI) and distributions to paid-in capital (DPI). As we have a short history and rely on interim valuations, these results should be interpreted with caution.

Taken together, our results suggest that CFs are best viewed as an institutional response to liquidity and information frictions in PE. They arise when some LPs face liquidity pressure while others, including the GP, prefer to maintain exposure to promising but still illiquid assets. The evidence suggests that GPs use CFs to retain stakes in their strongest portfolio companies, often increasing their own ownership. At the same time, the CF structure offers liquidity to less patient investors. CF activity is concentrated among the high-performing assets of high-performing funds, consistent with CFs facilitating efficient reallocations of capital across investors with heterogeneous horizons and less consistent with distress or opportunistic agency behavior.

This paper contributes to the literature on PE fund structures, which spans both theoretical work (Axelson et al., 2009; Kaplan and Strömberg, 2009; Chung et al., 2012; Malenko and Malenko, 2015) and empirical evidence (Kaplan and Strömberg, 2009; Axelson et al., 2013). It is most closely related to studies of PE secondaries, encompassing LP-led transactions (Nadauld et al., 2019; Boyer et al., 2022) and GP-led secondaries, or CFs.

Within this context, CFs represent a new institutional response to the tension between long-lived private assets and LPs' demand for interim liquidity. Related work on liquidity provision and secondary markets highlights how financial intermediaries create liquidity through price discovery and contract innovation under informational frictions (Stein, 2005; Chernenko, Lerner, and Zeng, 2017; Haddad, Loualiche, and Plosser, 2017; Holmström and Tirole, 1998).

Given the recent growth of CF activity, several contemporaneous and independent papers examine them. Kastiel and Nili (2024) provide a legal perspective on CF contracting, providing explanations based on conflicts of interest for why most LPs do not roll into CFs. Ivashina, Mayer, and Phalippou (2025) analyze confidential investment memos and industry reports, finding that GPs are typically required to roll all carry from the prior fund into the continuation vehicle, that CFs commonly employ tiered carry ratchets, and that their investor bases differ markedly from

legacy funds, with a large share of secondary-market specialists. They develop a two-period model focused on GP ability to exploit informational advantages and misprice asset transfers between legacy and new LPs. Their model predicts that raising a CF generally benefits the GP, that higher GP compensation in the legacy fund deters underpricing, that GP coinvestment into the CF mitigates zombie CFs but can foster underpriced CFs, and that CFs are more likely during periods of high LP liquidity demand.

Two recent empirical papers also study CFs. Gottschalg (2024) analyzes 231 CFs from 2018–2022 and finds that their returns are statistically indistinguishable from comparable funds. Luepertz, Roosenboom, and Verbeek (2025) examine 199 CFs from 2014–2022 and show that CFs are disproportionately launched by high-reputation GPs managing well-performing legacy funds; moreover, the transferred assets tend to be among the stronger performers in the legacy portfolios.

Our contribution to this literature is twofold. First, we develop a model in which CF formation arises endogenously from heterogeneity in legacy fund LP characteristics. Second, we collect a much larger sample of 532 CFs, match them to their legacy funds, and, for the first time, link these transactions to asset-level fund holdings data. This dual approach allows us to examine the determinants of GP decisions to initiate CFs and LP decisions to roll into them, offering new insight into how liquidity frictions and incentive misalignments shape the evolution of PE structures.

## **2. The Economics of Continuation Funds**

### **2.1. Institutional Background**

Private capital markets are dominated by term-limited, closed-end fund structures. Investors commit capital to these funds at inception, and those commitments are drawn down gradually through capital calls to finance management fees and portfolio investments. The investment period typically lasts four to six years, after which capital calls cease and the focus shifts to monitoring and exiting portfolio companies. Although most funds specify a ten-year contractual life, GPs typically have the option of up to two one-year extensions, subject to LPAC or LP consent depending on fund terms, and many portfolios remain active well beyond that horizon. For instance, MSCI-Burgiss data indicate that more than one-quarter of 2004-vintage VC funds still held residual assets two decades later, as of June 2024. Individually, LPs face difficulty selling stakes in long-lived funds due to informational frictions: portfolio company information is private

and unavailable to many potential buyers (Nadauld et al., 2019).

CFs offer a potential solution. In a CF, the legacy fund GP sponsors a new vehicle that purchases selected assets from the legacy fund. Legacy fund LPs can either sell their interests in the transferred assets or roll their exposure into the new vehicle. The LPs that choose to exit are paid using funds raised by new investors, generally specialized secondary investors.

There are alternative mechanisms through which LPs can obtain liquidity from existing fund claims, as illustrated in [Figure 2](#). Across these examples, we consider a fund (Example Fund XI), managed by Example Ventures GP. The fund has two portfolio companies: Potential Inc., which has strong growth prospects under continued private ownership, and Illiquid Corp., which is subject to significant informational frictions that impede a sale. The fund has two LPs, Patient Pension and Impatient Insurer, with the latter having liquidity needs. Panel A shows the status quo, with later panels contrasting various liquidity options.

[\[Figure 2 about here\]](#)

In Panel B, Impatient Insurer sells its stake to an external buyer in exchange for a cash payment. This type of transaction is known as an LP-led secondary. The GP is typically only required to approve the proposed transaction. Information frictions are a key barrier to these transactions: a claim on a bundle of companies is being sold, and both the buyer and the seller may lack access to important company-level information. This makes the LP-led secondaries market relatively illiquid, with stakes generally changing hands at a significant discount (Nadauld et al., 2019). In our example, this sale is impeded by the challenge of valuing Illiquid Corp.

In Panel C, the fund sells Potential Inc. and provides liquidity to all LPs. Historically, such a sale was almost always a trade sale or an initial public offering. However, the trend of companies staying private longer and the cyclical nature of the acquisition and IPO markets means that many companies are not IPO candidates and are not sold due either to a lack of obvious buyers or to a gap between seller and buyer price expectations. While there is always *some* price at which a portfolio company could sell at any time, this price can be substantially lower than the GP's perception of the asset's underlying value. From the GP's perspective, selling prematurely at such prices may reduce the fund's long-term returns. Unlike the LP-led secondary, which is LP-specific, an asset sale is asset-specific: all LPs exit their claim on that asset simultaneously. In our example, selling Potential Inc. destroys value because it has strong growth prospects under continued private ownership, whereas selling Illiquid Corp. destroys value because illiquidity and informational

frictions depress its sale price below fundamental value.

In Panel D, the GP moves Potential Inc. into a CF. This transaction allows Impatient Insurer to exit and receive payment for its ownership portion of Potential Inc., without the inefficiency of liquidating either of the fund holdings. Patient Pension rolls its capital into the new fund and keeps its ownership. The GP benefits by earning fees and carried interest on the new fund (Example Fund XI CF). Funding for Impatient Insurer's redemption may come from additional company-level leverage, reinvestment by existing LPs, investment by the GP, or, most commonly, from new capital raised from specialized secondary investors. A CF thus combines LP-level liquidity choice with asset-level selection, unlike the mechanisms in Panels B and C.

A CF transaction is distinctive in being both *LP-specific* and *asset-specific*: it allows some LPs to exit while others remain and applies only to selected assets rather than the entire portfolio. Other liquidity mechanisms, including the sales in Panels B and C and other structures like NAV loans, either provide liquidity to all investors or affect all fund assets simultaneously, as summarized in [Figure 3](#). These alternatives can be inefficient when asset-level liquidity differs and LP liquidity needs are heterogeneous, as in our example.

[[Figure 3](#) about here]

Whether carried interest is crystallized and paid out at the time of a CF transaction is determined through negotiation among the parties. Crystallizing and paying carry at the time of the CF transaction may disadvantage existing LPs. First, it accelerates payments to the GP before investments are fully realized, allowing compensation before final outcomes are known. Second, paying carry weakens the GP's performance incentives, since the profit-sharing stake is no longer at risk. This concern is amplified because the same GP controls both the selling and the buying vehicles, creating potential moral hazard. To mitigate these concerns, investors in CFs normally expect GPs to roll their carry from the transferred assets into the new fund (see Ivashina, Mayer, and Phalippou, 2025).

The transfer price is negotiated among the GP, legacy LPs, and incoming investors and is often a central source of tension. A price below fair value transfers wealth from exiting LPs to new investors, whereas a price above fair value transfers wealth from new investors to exiting LPs. The LPs who roll into the new fund are indirectly affected through the fees and carry structure but not directly through the transaction price itself. Pricing also affects incentives: a lower transfer price reduces crystallized carry in the legacy fund and lowers the management-fee base in the new

vehicle, whereas a higher price increases both. Transaction approval typically rests with the Limited Partner Advisory Committee (LPAC), whose membership may not represent the full investor base and may be disproportionately composed of either exiting or rolling LPs.

## 2.2. A Model of LP Exits, Fund Extensions, and Continuation Funds

To formalize the ways that liquidity constrained LPs can exit their investments, we first present a simple two-period model that considers exits and fund extensions. We then extend the framework to analyze CFs.

### 2.2.1. Exit Value and Timing

A GP manages a legacy fund that holds an asset  $X$ . This asset can be sold today for  $X_0$  and will generate a single exit cash flow  $X_1$  at time 1 if it is retained. With probability  $p$ , the asset has growth potential and future value  $X_1^H$ , whereas with probability  $1 - p$  it does not have growth potential and has future value  $X_1^L$  where  $X_1^H > X_0 > X_1^L > 0$ . The time-0 sale value is common knowledge, whereas only the GP can observe the future value of the asset. Unconditional continuation is inefficient in expectation, with  $pX_1^H + (1 - p)X_1^L < X_0$ .

Whether this asset is sold or kept private is determined by a two-stage game. In the first stage, the LPs choose whether to grant a fund extension to the GP based on what maximizes aggregate LP welfare. If an extension is not granted, the asset is sold for  $X_0$  and the game ends. If an extension is granted, the GP chooses whether to sell the asset for  $X_0$  or keep it private for a time-1 exit of  $X_1$ .

Regardless of exit timing, the asset's exit payoff  $X_t$  is split between the GP and the LPs. At the time of exit, the GP receives  $\lambda_{LF}X_t$  while the LPs collectively receive  $(1 - \lambda_{LF})X_t$ , distributed across a unit mass of LPs  $i \in [0, 1]$ . This abstracts from waterfalls, catchups, and clawbacks and models compensation as linear in exit proceeds, capturing the marginal incentive effects relevant for continuation decisions. Under real-world compensation models, a successful GP that has already returned LP capital may earn 20% carry on incremental exits, implying  $\lambda_{LF} \approx 0.2$ ; whereas a GP that has performed poorly and is out of the money on carry may earn nothing on incremental exits, implying  $\lambda_{LF} \approx 0$ .

### 2.2.2. Heterogeneous Preferences for Early or Late Exits

LPs have heterogeneous preferences over exit timing with discount factors uniformly distributed over  $[\delta_{LP}^{LB}, \delta_{LP}^{UB}]$  where  $0 < \delta_{LP}^{LB} \leq \delta_{LP}^{UB} < 1$ . Lower discount factors may reflect

liquidity shocks (Li, 2025), binding allocation constraints in PE programs, governance frictions that limit holding periods, or even differences in LP beliefs about the GP's future value creation.

The GP has discount factor  $\delta_{GP} > 0$ , capturing her own timing incentives. We interpret  $\delta_{GP}$  as a reduced-form proxy for preference misalignment. A low  $\delta_{GP}$  reflects a desire to exit early, whether driven by immediate consumption needs or by career concerns and grandstanding incentives (Gompers, 1996). A high  $\delta_{GP}$  reflects incentives to delay exit, perhaps to defer write-downs (Chakraborty and Ewens, 2018; Brown, Gredil, and Kaplan, 2019), preserve assets under management, or increase risk to gamble for resurrection (Jensen and Meckling, 1976).

We first characterize the sequential equilibria of the exit and extension game. Proofs are provided in the appendix.

**THEOREM 2.2.1:** The sequential equilibria are as follows (unique except on indifference boundaries):

1. *Efficient fund extension:* An equilibrium in which the high-potential asset is kept private and the low-potential asset is sold immediately. This equilibrium exists if and only if
  - i) GP incentives are sufficiently aligned,  $\frac{X_0}{X_1^H} \leq \delta_{GP} \leq \frac{X_0}{X_1^L}$ , and
  - ii) retaining the high-potential asset maximizes LP welfare,  $X_0/X_1^H \leq \bar{\delta}_{LP}$ .
2. *Immediate sale:* An equilibrium in which the asset is always sold immediately. This equilibrium exists if and only if either  $\delta_{GP} \leq \frac{X_0}{X_1^H}$ ,  $\delta_{GP} \geq X_0/X_1^L$ , or  $X_0/X_1^H \geq \bar{\delta}_{LP}$ .

Efficient continuation requires sufficiently aligned GP incentives. If the GP is too impatient, she exits even high-potential assets. If the GP is too patient, she retains even low-potential assets. Anticipating these distortions, LPs refuse to grant an extension ex ante, forcing an immediate sale.

### 2.2.3. Continuation Funds

We extend the model by allowing the GP to propose a CF prior to the fund extension subgame. The CF has fixed linear fees  $\lambda_{CF} > 0$  and the GP rolls over her legacy fund fees into the CF.<sup>4</sup> We assume the GP finances her CF investment exclusively by rolling over these fees. LPs approve the CF if it maximizes aggregate LP welfare.

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<sup>4</sup> Most secondary investors will not invest in a continuation fund unless the GP rolls his carry. The data discussed below document that, most likely for this reason, GPs' percentage stakes in continuation funds are higher than in legacy funds.

If the CF is approved, the GP solicits bids from competitive secondary investors with discount factor  $\delta_{SI}$ . Secondary investors observe that a CF has been approved but cannot observe the asset's growth potential. Competition implies a zero-profit pricing condition yielding the transfer price:

$$P = \delta_{SI} (1 - \lambda_{CF}) E[X_1 | \text{CF approved}],$$

where expectations are taken with respect to equilibrium beliefs about the asset's payoff. In separating equilibria, approval perfectly reveals type; in pooling equilibria, pricing reflects prior beliefs.

Consistent with real-world CF structures, legacy LPs may either exit at price  $P$  or roll their interests into the CF. Their payoffs are:

$$\begin{aligned} \text{Exiting LP:} \quad & v_0^{ELP,CF} = (1 - \lambda_{LF})P, & v_1^{ELP,CF} &= 0; \\ \text{Rolling LP:} \quad & v_0^{RLP,CF} = 0, & v_1^{RLP,CF} &= (1 - \lambda_{LF})(1 - \lambda_{CF})X_1. \end{aligned}$$

The GP's payoff reflects both CF fee income and her rolled-over stake. By reinvesting her  $P\lambda_{LF}$  fees from the legacy fund at a price  $P$ , the GP acquires a  $\lambda_{LF}$  share of the CF. Her payoffs are:

$$\text{GP:} \quad v_0^{GP,CF} = 0, \quad v_1^{GP,CF} = \lambda_{CF}X_1 + \lambda_{LF}(1 - \lambda_{CF})X_1.$$

#### 2.2.4. Continuation Fund Equilibria

We now characterize the equilibria of this extended game.

**THEOREM 2.2.2:** The following are the only pure strategy sequential equilibria:

1. *Efficient fund extension:* An equilibrium in which the high-potential asset is retained via a fund extension and the low-potential asset is sold immediately. This equilibrium exists if and only if
  - i) GP preferences are sufficiently aligned,  $\frac{X_0}{X_1^H} \leq \delta_{GP} \leq X_0/X_1^L$ , and
  - ii) retaining the high potential asset maximizes LP welfare,  $X_0 \leq \int_0^1 \delta_{LP}^i X_1^H di$ .
2. *Immediate sale:* An equilibrium in which the asset is always sold immediately. This equilibrium exists if and only if either  $\delta_{GP} \leq \frac{X_0}{X_1^H}$ ,  $\delta_{GP} \geq X_0/X_1^L$ , or  $X_0 \geq \int_0^1 \delta_{LP}^i X_1^H di$ .
3. *Efficient continuation fund:* An equilibrium in which the high-potential asset is retained via a CF and the low-potential asset is sold immediately. This equilibrium exists if and only if
  - i) GP preferences are sufficiently aligned,  $\frac{X_0}{X_1^H} < \delta_{GP} \left(1 + \lambda_{CF} \frac{1 - \lambda_{LF}}{\lambda_{LF}}\right) < \frac{X_0}{X_1^L}$ , and
  - ii) the CF increases aggregate LP welfare.

The efficient CF equilibrium requires consistency with both GP and LP preferences. Condition (i) modifies the GP alignment condition from Theorem 2.2.1 by incorporating the additional incentive effects of CF fees. The extra fees increase the effective payoff from retaining the asset, preventing impatient GPs with high-potential assets from pursuing inefficient immediate sales. However, these same fees exacerbate distortions when GPs prefer delayed exits. In particular, if the fees from the legacy fund are low relative to the fees from the CF,  $\lambda_{CF} \gg \lambda_{LF}$ , GPs with low-potential assets have strong incentives to pursue value-destroying CFs. Anticipating this distortion, LPs reject CFs ex-ante.

Condition (ii) reflects the costs and benefits of CFs to LPs. We focus on the case in which LPs prefer continuation over an immediate sale for the high-potential asset,  $\frac{X_0}{X_1^H} \leq \bar{\delta}_{LP}$ . Given that, LPs approve the CF when the surplus created by (i) LP-specific exit options and (ii) improved GP incentive alignment exceeds the surplus lost due to CF fees:

$$\underbrace{\mathbf{E}[\max\{\delta_{SI} - \delta_{LP}^i, 0\}]}_{\text{LP-specific exits}} + \underbrace{\mathbf{I}\left[\delta_{GP} \leq \frac{X_0}{X_1^H}\right] \left(\bar{\delta}_{LP} - \frac{X_0}{X_1^H}\right)}_{\substack{\text{Strengthened GP} \\ \text{stay-private incentives}}} \geq \underbrace{\lambda_{CF} \mathbf{E}[\max\{\delta_{SI}, \delta_{LP}^i\}]}_{\text{Continuation fund fees}}.$$

The first term captures gains from LP-specific exit options. By allowing LPs to sell at a price determined by secondary investors, a CF enables less patient LPs to exit while more patient LPs remain invested. The value of this option depends both on the difference in patience between secondary investors and LPs and on the dispersion of LP discount factors. Even if LPs are, on average, more patient than secondary investors, LP heterogeneity creates gains because the least patient LPs can exit at a price reflecting the secondary investor valuation.

The second term reflects the value of strengthening GP incentives. Sufficiently impatient GPs would otherwise exit high-potential assets prematurely. The fees generated by a CF increase the marginal payoff from continuation, inducing these GPs to retain high-potential assets and thereby creating surplus for LPs.

These benefits must outweigh CF fees. Such fees reduce the LP share of future payoffs, borne directly by rolling LPs and indirectly by exiting LPs through a lower transfer price.

[Figure 4 about here]

#### 2.2.5. Parameter Space

Figure 4 illustrates the equilibrium regions for a representative parameterization. We fix the average LP discount factor at a level  $\bar{\delta}_{LP} \geq X_0/X_H$ , ensuring that fund extension equilibria are

feasible, and vary the GP discount factor  $\delta_{GP}$  on the vertical axis and the dispersion in LP discount factors  $\delta_{LP}^{UB} - \delta_{LP}^{LB}$  on the horizontal axis.

Consider first variation in GP discount factors. A fund extension equilibrium requires  $\delta_{GP} < X_0/X_1^L$ , as otherwise negative time preference GPs will keep low-potential assets private. CF fees increase the marginal payoff from continuation, making retention more attractive and tightening this upper bound. In particular, the admissible region shifts downward by the factor of  $1 - \frac{\lambda_{LF}}{\lambda_{LF} + \lambda_{CF}(1 - \lambda_{LF})}$ . We interpret high- $\delta_{GP}$  GPs as managers who prefer delayed exits, for example because they are out of the money on carried interest or face fundraising concerns. For such GPs, CF fees exacerbate incentives to retain low-quality assets, shrinking the region in which efficient CF equilibria exist. This provides an additional reason, beyond an inability to roll fees, why poorly performing GPs may struggle to raise CFs.

At the lower bound, fund extensions require  $\delta_{GP} > X_0/X_H$ , since sufficiently impatient GPs exit even high-potential assets prematurely. Here, CF fees relax the constraint by a factor of  $1 - \frac{\lambda_{LF}}{\lambda_{LF} + \lambda_{CF}(1 - \lambda_{LF})}$ . By increasing the marginal payoff from continuation, CFs expand the set of impatient GPs for whom efficient continuation is feasible. Economically, CF fees act as an incentive amplifier: they “bribe” impatient but otherwise high-quality GPs to retain valuable assets.

In this sense, CFs operate as a midstream incentive reset mechanism. By layering additional fees on top of legacy carry, they alter the marginal return to continuation in a manner analogous to multi-layer compensation contracts in standard principal-agent models (Holmstrom and Milgrom, 1991).

Now consider LP discount factor dispersion. Increasing dispersion expands the region in which CFs are attractive. As dispersion rises, the value of LP-specific exit options increases because the least patient LPs can exit while more patient LPs remain invested. By contrast, the benefit of a standard fund extension depends only on the average LP discount factor and is unaffected by dispersion. Accordingly, the fund extension region remains constant as dispersion increases, while the CF region expands.

### 2.3. Empirical Predictions

The model yields several empirical predictions, which we organize along three dimensions: (i)

the conditions under which CFs emerge, (ii) the rollover decisions of LPs, and (iii) the characteristics of the assets transferred into CFs.

### 2.3.1. Emergence of CFs.

The first and most direct prediction is that CFs should be initiated by GPs managing high-performing legacy funds. This comes about through three channels. First, GPs can only form a CF if they have earned sufficient fees from their legacy fund. If GPs have no fees to roll into the CF ( $\lambda_{LF} = 0$ ), the GPs with high potential assets cannot distinguish themselves from GPs with low potential assets who simply want extra fees from a CF. Second, we have framed GPs with a preference for delayed exits as low performing GPs who are “gambling for resurrection”. In the model, these GPs cannot raise CF because LPs cannot discern whether the GP has high-potential assets or simply wants to defer realizing a loss. Third, for very strong performers, CFs may also serve a useful contracting role: by crystallizing carry and resetting incentive structures, CFs can reduce GPs’ temptation to exit prematurely simply to lock in gains.

A second model prediction is that CFs emerge when LP preferences are more heterogeneous ( $\delta_{LP}^{UB} - \delta_{LP}^{LB}$  is large). A CF allows LP-specific exits, which are valuable only if LPs have differing preferences. If all LPs have the same preferences, LP-specific exits add no value, whereas if LPs have different preferences the ability to tailor liquidity individually is valuable. Thus, we expect CFs to emerge in funds where either some LPs experience liquidity shocks or where the investor base is large and diverse across institution types (e.g., pensions, funds of funds, endowments).

A third prediction concerns the secondary market environment. CFs should emerge when secondary investors are willing to pay higher prices (high  $\delta_{SI}$ ). Because secondary buyers are themselves funded by LP capital, the aggregate supply of capital in the secondary market directly affects GPs’ ability to structure CF transactions. Hence, we expect CF incidence to rise when the secondary market is deep and well-capitalized.

### 2.3.2. LP Rollover Decisions.

When a CF is created, LPs must decide whether to roll their interests into the new vehicle or to exit. In the model, more patient LPs (high  $\delta_{LP}^i$ ) choose to roll, while impatient LPs (low  $\delta_{LP}^i$ ) exit. LPs experiencing liquidity shocks or facing institutional frictions (e.g., slow approval processes or re-allocation pressures) should be more likely to exit. In addition, higher transaction prices increase the attractiveness of cashing out, leading to more exits and fewer rollovers.

### 2.3.3. The Quality of Transferred Assets.

The model predicts that higher-quality assets are more likely to be transferred into CFs. Two mechanisms drive this result. First, in funds with deal-by-deal (American-style) carry, only high-performing assets generate carried interest. These assets are the ones that have the incentive aligning fees that GPs can transfer into CFs. Poorly performing deals, which have not earned carry, offer little motivation for CF formation from GPs’ perspective.

Second, CFs emerge when assets have further growth if held privately (high  $X_1^H/X_0$ ). There is strong evidence of pre-fee performance persistence in PE, suggesting that managers who have added value to a company in the past will continue to add value in the future. Thus, we expect CF portfolios to comprise relatively successful and high-growth assets from the legacy fund – because those assets are likely the ones with growth potential.

### 3. Stylized Facts about Continuation Funds

#### 3.1. Sample Construction

We build our database of CFs using data from Preqin, PitchBook, form ADV filings, and media announcements. We begin by identifying funds in Preqin, PitchBook, or Form ADV filings whose names contain “CF,” “CV,” “Continuation fund”, or “Continuation vehicle” and confirming that each entry is indeed a CF. We supplement this list with data gathered from announcements of new CF creations from *SecondaryLink*, *Secondaries Investor*, and other media sources.<sup>5</sup> Some funds are labeled as opportunity funds, extension funds, special purpose vehicles, while other funds do not have any dedicated labels or names.

Our initial dataset starts with 532 CFs raised between 2005 and 2025. For each fund, we use Preqin and PitchBook for information on fund characteristics, LP identities, and assets held. We remove private debt and cancelled CFs. We identify the corresponding legacy funds by tracing each CF’s underlying assets back to earlier vehicles managed by the same GP. After these filters, we have a dataset of 326 CFs for which PitchBook data are available and legacy fund identities are known. A major challenge that contributes to dropping many CF observations is difficulty assigning them to a specific legacy fund with certainty. The funds we fail to match appear broadly comparable, although they are 29% smaller on average and 17% more likely to be single-asset funds.

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<sup>5</sup> These data are available at [secondarylink.com](https://secondarylink.com) and [secondariesinvestor.com](https://secondariesinvestor.com).

For the asset-level analysis, we use confidential data provided by StepStone Group. StepStone is a global private markets firm that invests in portfolio companies and funds and advises LPs. As of December 31, 2025, StepStone oversaw more than \$800 billion in total capital, including approximately \$220 billion in assets under management and nearly \$600 billion under advisement. StepStone maintains data on a broad set of portfolio companies, including direct investments, companies held indirectly through PE funds, companies backed by its LP clients and their GPs, and companies associated with funds that disclose performance information during fundraising. The resulting dataset is comparable, and in certain respects superior, to MSCI-Burgiss, which is widely used in academic research on PE (also, see Ercan, Kaplan, Strebulaev, 2025). In particular, the StepStone data are not anonymized and include quarterly interim valuations for many individual investments, a feature that is especially valuable for our empirical analysis.

LPs can be involved with a CF in three distinct ways: as an investor in the legacy fund who exits using the CF proceeds, as an investor who rolls their stake into the CF, or as a new investor onboarding with the CF. Our LP analysis focuses on U.S.-based public pension plans because state-level FOIAs mandate consistent disclosure. We aggregate multiple retirement plans managed within a single retirement system.

### 3.2. Descriptive Statistics

[Table 1](#) describes the variables that we use in our main analysis. Most variables are defined for both legacy funds and CFs, while some represent characteristics at the asset-level.

[[Table 1](#) about here]

[Table 2](#) reports several sets of summary statistics, with Panels A, B, and C providing overviews of the data at the fund-, asset-, and LP-level, respectively.

[[Table 2](#) about here]

Panel A presents fund-year-level characteristics for 36,364 observations spanning 2018–2025, where one observation represents a “potential” legacy fund-year (including all actual legacy funds in our sample as well). These observations represent 8,349 PE funds.<sup>6</sup> The average panel-year occurs approximately seven years after the fund’s vintage, with vintages concentrated around

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<sup>6</sup> We start with the PitchBook fund universe and then impose the following conditions: post 2017 fund-year observations in PE, VC, or real assets funds with known fund size, vintage year, RVPI, and DPI, at least one known LP, and with the fund age not exceeding 15 years.

2014. CF activity is rare: the mean CF initiation rate is 0.6% of fund-year observations, with funds that will spawn CFs accounting for 4.15% of observations. Funds span VC, PE, and real assets strategies. The typical fund has approximately 15 LPs and a moderate degree of LP-type concentration, with a mean Herfindahl–Hirschman index of 0.46. Lagged RVPI is 1.04, with lagged DPI of 0.65 and IRR of 13%.

Panel B reports summary statistics for the asset-level sample. The sample is restricted to assets sourced from StepStone and focuses on portfolio companies that are in legacy funds immediately prior to CF formation. We focus on 1%-Winsorized and logged returns to reduce the impact of a small number of assets whose extremely low zero cost basis leads to skewed returns. The average asset has strong performance, with mean RVPI of 1.48, DPI of 0.44, and IRR of 25%. Assets transferred into CFs exhibit stronger performance, particularly in unrealized value: mean RVPI is 2.02, compared to 1.37 for assets not transferred. The difference between DPI measures is less pronounced, consistent with the fact that many of these assets have not yet generated realized distributions. The corresponding difference in IRR is 19 percentage points, consistent with the higher unrealized values of transferred assets. This pattern is in line with many portfolio companies being in early- to mid-life stages at the time of CF formation, when unrealized value remains substantial.

Panel C reports LP-level summary statistics for 911 LP-CF observations. Only about 5% of LP–CF observations correspond to rollover decisions, indicating that most LPs choose to exit in CF transactions. On average, an LP that rolls into a CF makes four other rollover decisions in the same year. Most of the LPs in the sample received more in PE distributions than they contributed to PE funds within their aggregate PE portfolios in a given year.

[[Figure 5](#) about here]

Panel A of [Figure 5](#) illustrates the evolution of the CF market from 2005 to 2025, showing both the aggregate value of CF transactions in USD billions and the number of CFs launched each year. The data highlight a sharp expansion in CF activity. Transaction value increases from negligible levels in 2015 to approximately \$80 billion in 2024, with more than 100 CFs launched that year. Preliminary data suggest that 2025 is even larger in scale.

Panel B shows that the fraction of public pension plan LPs that roll into CFs has decreased as CFs have become more popular. The fraction of rolling public pension plans LPs declines from 10% in 2019 to just 2% in 2024, indicating that fewer incumbent LPs choose to roll their

commitments into continuation vehicles over time. The temporary uptick around 2021 coincides with the surge in CF activity during the pandemic period, when some LPs opted to roll rather than sell. After 2021, the series flattens to a low level, implying that CFs increasingly attract new investors or secondary buyers rather than retaining legacy LPs.

[Figure 6 about here]

Panel A of Figure 6 presents the distribution of CFs across fund types. Buyout funds dominate the use of continuation vehicles. VC and infrastructure or real asset funds account for fewer CFs, both in absolute number and relative to their proportion in the overall fund universe. Other fund types, including private debt, rarely initiate CFs. We therefore exclude these fund types from the main analysis.

Panel B of Figure 6 shows the industry composition of the assets transferred into continuation vehicles. Most transferred assets are concentrated in B2B, B2C, IT and healthcare industries. This distribution is broadly consistent with the underlying portfolio composition of the GP that launched the CF, suggesting that GPs are not disproportionately selecting CF candidates from niche or outlier sectors. Thus, transferred assets broadly reflect funds' existing industry exposures rather than concentration in narrow or atypical sectors.

#### 4. Which Funds Launch Continuation Funds?

We first examine predictions related to the formation of CFs. To evaluate the determinants of CF formation, Table 3 reports estimates from linear probability models (LPMs). The dependent variable across all six columns is a binary indicator equal to 100 (percentage points) if a CF was formed by that legacy fund in that year and zero otherwise. All regressions include fund-age and panel-year fixed effects; selected specifications additionally include investor or fund fixed effects which may subsume these.

[Table 3 about here]

Table 3 shows that CF initiation is strongly related to interim fund performance, with RVPI emerging as a robust predictor across specifications. In specification (1), both RVPI and DPI are positively associated with CF formation. A doubling of RVPI is associated with a 0.45 percentage point increase in annual CF initiation, approximately equal to the unconditional mean initiation rate. In specification (2), both RVPI and DPI remain significant after adding fund- and LP-base controls, with the RVPI coefficient strengthening and becoming significantly larger than the DPI

effect. Consistent with the model, greater LP fragmentation predicts CF initiation, whether measured by a higher LP count or lower LP concentration. This effect is not driven by fund size or type, as we control for these characteristics directly. Larger funds and buyout funds are more likely to initiate CFs, while real asset funds (the omitted category) are less likely to do so. Specification (3) yields similar results when IRR replaces multiple-based return measures, though the sample is smaller due to data incompleteness. Specification (4) shows that funds with IRRs exceeding 8% are significantly more likely to initiate CFs, consistent with the hypothesis that GPs initiate CFs when performance is sufficient to crystallize carried interest.

Specification (5) adds GP fixed effects to examine which funds within a PE firm are more likely to initiate CFs. Consistent with the cross-sectional results, CFs disproportionately emerge from a firm's larger funds with higher RVPIs and more dispersed LP bases. In this within-investor specification, the RVPI coefficient increases in magnitude, while DPI loses statistical significance, potentially because firm-level effects absorb variation in payout timing. We omit fund-type indicators due to limited within-investor variation. Specification (6) introduces fund fixed effects to examine the timing of CF initiation within a fund's lifecycle, while controlling for fund age fixed effects. The coefficient on RVPI in this fully saturated specification is more than twice as large as in specification (1), indicating that CFs tend to be initiated at times when unrealized value is particularly high. The predictive power of RVPI is robust to Cox proportional hazards models and to the use of Winsorized return measures (see Online Appendix Table OA1).

Overall, the effects of fund size, fund type, and RVPI provide insight into the determinants of CF formation. These performance-related findings are consistent with the model: GPs are more likely to initiate CFs when they are performing well and in carry, allowing them to crystallize and de-risk their share of accrued profits.

## **5. Which Portfolio Companies are Transferred to a Continuation Fund?**

We next examine which portfolio companies are transferred to CFs. [Table 4](#) reports regressions predicting whether a portfolio company is included in a CF. The dependent variable in all six specifications is an indicator equal to one if the asset is ultimately included in a continuation vehicle. The equations use deal-level characteristics to explain the likelihood of transfer, focusing on asset size and performance. The control group of assets comprises portfolio companies that remain unexited at the time of CF creation.

[Table 4 about here]

Columns (1)–(4) show that asset-level RVPI and IRR are positively associated with transfer to a CF. In contrast, DPI does not have a statistically significant effect on the transfer decision. Removing fund fixed effects (5) has little quantitative impact on these results. Our results suggest that CFs are used to extend the holding period of high-performing assets with substantial unrealized value, rather than assets that have already generated distributions.

Original deal size is positively associated with transfer, suggesting GPs are more likely to move their largest holdings into CFs. This pattern is consistent with the idea that CFs allow GPs to de-risk substantial amounts of carried interest by crystallizing it into a GP ownership stake. If running a CF entails fixed costs, GPs may initiate one only when the underlying asset is sufficiently large. Importantly, it is the asset’s size relative to other holdings within the fund that drives the transfer decision. When legacy fund fixed effects are excluded (Column (5)), the relationship weakens considerably, indicating that transfer decisions are driven primarily by within-fund prominence rather than absolute deal size across funds.

Taken together, the results indicate that GPs are more likely to transfer large portfolio companies with strong prior performance. This pattern is consistent with the model predictions that CFs are primarily used to extend the holding period of promising assets that have earned carried interest.

## **6. Investor-level Evidence: Rollover Decisions and LP Composition**

### **6.1. The Decision to Roll into a Continuation Fund**

Perhaps surprisingly, the vast majority of LPs exit when given the option to do so and relatively few roll into CF. To understand this rollover behavior, we estimate models predicting whether a given LP elects to roll its interest into a CF. The dependent variable is an indicator equal to one if the LP rolls its interest into the continuation vehicle rather than cashing out. We consider legacy fund LPs to have rolled if they report an interest in the CF. Because commitment sizes are generally unavailable, we cannot distinguish partial rolls from full rolls or identify incremental capital contributions.

Our analysis focuses on the universe of LPs that participated in legacy funds prior to the formation of CFs. We focus on U.S. public pension plans, for which disclosure requirements yield

high quality data on PE investments. Most U.S. public plans are subject to FOIA disclosure requirements that mandate reporting of private equity commitments, whereas comparable disclosure obligations do not generally apply to other LP categories (see, e.g., Abuzov, Gornall, Strebulaev (2025)).

We examine the period from 2018 to 2024, which captures the recent surge in CF activity. All specifications include LP fixed effects, which control for time-invariant heterogeneity across investors. Given the short sample window, LP fixed effects likely also absorb slowly evolving characteristics such as internal resources and due-diligence capacity. In addition, we include vintage-year fixed effects throughout to control for aggregate time trends in rollover behavior.

Because a central rationale for CFs is to accommodate LP liquidity needs, we construct two complementary measures that capture time variation in LP-level demand for cash. First, for each rollover decision, we identify whether the LP also rolled its stake in other funds during the same calendar year, capturing within-year consistency in liquidity choices. Second, we examine the net cash-flow position of each LP's PE portfolio by comparing aggregate capital contributions and distributions at the beginning of the year. When an LP's total distributions in a given year are less than its commitments, we interpret this as heightened liquidity demand. Our hypothesis is that LPs seek self-financing PE portfolios in which distributions fund new capital calls. Deviations from this balance increase reliance on external liquidity and raise the cost of maintaining precautionary cash buffers, thereby exacerbating cash drag – the opportunity cost of holding low-return liquid assets to meet potential capital calls (Warren and O'Shea (2023)).

[Table 5 about here]

Table 5 reports our estimates. Each column presents results from a linear probability model that includes a range of controls for legacy fund, CF, and LP characteristics. Column (1) shows strong within-year clustering in rollover decisions: the coefficient on *Contemporaneous rolls* is positive and highly statistically significant, indicating that an LP is substantially more likely to roll into a CF in a year in which it also rolls stakes in other funds. LP fixed effects and year fixed effects have already been absorbed, so this pattern indicates substantial within-LP temporal clustering.

Column (4) sheds light on the mechanism behind this clustering. LPs are significantly more likely to roll when their PE portfolios are cash-flow positive as of the beginning of the year – that is, when an LP's aggregate PE distributions exceed contributions. This result is consistent with

rollover decisions responding to time-varying liquidity conditions.

Taken together, these patterns underscore the importance of time-varying LP liquidity needs in shaping rollover decisions. The results remain robust to the inclusion of a rich set of legacy fund-, CF-, and LP-level controls across the remaining columns of Table 5. While neither the total number of rollover considerations nor fund size appears to play a significant role, two additional patterns emerge.

First, the probability that a given legacy LP rolls increases with the number of other legacy LPs rolling into the CF. This association may reflect unobserved CF-level attractiveness or coordination among legacy fund LPs. Second, the relationship between rollover decisions and the age of the legacy fund at CF formation exhibits an inverted U-shaped pattern, with rollover likelihood peaking when the legacy fund is approximately 11 years old.<sup>7</sup> Although the estimate is imprecise, it is consistent with the interpretation that LPs may view roll proposals from relatively young funds as opportunistic, while becoming less willing to extend exposure to funds that are well beyond their extended lifespan.

Overall, rollover decisions are strongly linked to time-varying, investor-level characteristics capturing LP-specific liquidity needs and contemporaneous openness to CF proposals. Taken together, the evidence indicates that rollover behavior is systematic and shaped by institutional frictions, rather than driven purely by transaction-level deal quality.

## 6.2. Aggregate LP composition

We next examine the aggregate LP composition of CFs relative to legacy funds. [Figure 7](#) compares three groups of LPs: (i) investors in legacy funds, (ii) legacy LPs who roll into the CF, and (iii) new LPs investing in the CF. The reported percentages are count-based and aggregated across all funds within each category. [Figure 7](#) reveals a significant transformation in the investor base as CF transactions unfold.

[[Figure 7](#) about here]

Public pension funds are the largest investor category in legacy funds, representing 32% of LPs, followed by insurance companies (19%) and private pensions (18%). Financial intermediaries

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<sup>7</sup> For a quadratic function of the form  $y = ax^2 + bx + c$ , the global maximum (when  $a < 0$ ) occurs at  $-b/(2a)$ . Using the estimated coefficients in Column (3), this yields  $0.0244/(2 \times 0.0011)$ , corresponding to a peak at approximately 11 years.

-- primarily secondary funds and funds-of-funds -- account for 14%, with foundations, endowments, and smaller categories comprising the remainder.

Among rolling investors, the composition shifts modestly. Public pension funds remain prominent, likely reflecting their stricter disclosure requirements: even if all legacy LPs rolled at similar rates, public plans' rollover decisions are more likely to be observed in our data. Financial intermediaries rise to nearly one-fifth of participants, reflecting their comfort with secondary and structured liquidity transactions.

The composition of new CF investors differs substantially from that of legacy fund investors. In CFs, financial intermediaries comprise two-thirds of all participants -- by far the largest category. These intermediaries are often dedicated secondary funds raised explicitly to invest in CFs and LP-led secondary transactions. At the same time, traditional institutional investors' shares decline: public pensions fall to 10%, insurance companies to 6%, and private pensions to just 1%. The "other" category, which includes family offices, private wealth platforms, and opportunistic buyers, expands to 13%. These investors typically face fewer requirements for regular distributions, suggesting that liquidity needs may be an important reason why many legacy LPs choose not to roll.

Overall, this figure illustrates a structural evolution in the investor base through the life cycle of a CF transaction. The declining presence of traditional institutional investors and the rise of PE and wealth management firms in CFs, especially among new investors, highlights how GP-led secondaries are drawing capital from a distinct LP universe.

In the Online Appendix Table OA2, we combine rolling and new CF investors and compare the resulting CF investor base with that of traditional funds. This comparison illustrates that the combined LP base of CFs -- both new and rolling investors -- differs systematically from that of traditional PE funds. CFs are smaller vehicles that attract less capital from traditional institutional investors such as public pensions and endowments, and more from specialized PE intermediaries possessing flexibility and secondary-market expertise. GP-led CFs are supported primarily by a distinct, professionalized LP segment, rather than the same investors that backed the original legacy fund.

The decision of public LPs to refrain from participating in CFs gives rise to potential fairness concerns. Public LPs' disclosure requirements may limit their access to sensitive fund-level information needed to evaluate these transactions (Abuzov, Gornall, Strebulaev (2025)).

Moreover, they may be excluded from the fund-level governance functions such as an LP advisory committee. If this is the case, these exiting LPs could face worse outcomes than if they were to roll their stakes.

## 7. Preliminary Evidence on Performance of Continuation Funds

One of the most important questions about CFs is their performance. Should we expect them to outperform or underperform other PE funds? There are reasons to suspect they will do relatively well: their assets are the portfolio firms the GPs have chosen to invest their time and money into, and once they formed, the GPs have strong pecuniary incentives to earn high returns through their high ownership and carried interest on the CF. However, the recency of CFs makes any empirical evaluation of their performance necessarily preliminary. We nonetheless assess performance to date and compare CF outcomes to matched benchmarks. We also examine the performance outcomes of rolling and exiting LPs, measured by TVPI and DPI.

We estimate the returns of investors who roll by adjusting the returns of legacy funds based on the returns of CFs and the investment into those funds. Specifically, an investor in legacy fund  $i$  that rolled into a CF at age  $t$  has the following return measure  $R$  at time  $t + s$ , where  $R$  can be DPI or TVPI:

$$R_{t+s,i}^{ROLLER} = R_{t+s,i}^{EXITER} + \bar{k}_0 \mathbf{I}[s \geq 0] (\bar{R}_s^{CF} - 1) + \bar{k}_1 \mathbf{I}[s - 1 \geq 0] (\bar{R}_{s-1}^{CF} - 1).$$

The DPI of rollers is equal to the DPI of exits plus adjustments for flows into CFs the year of the CF and the following year. The  $\bar{k}_0$  term captures the extent to which the average legacy fund's DPI growth exceeds its benchmark in the year of the CF transaction, under the assumption that this excess reflects CF-related cash flows. The  $\bar{k}_1$  term is a similar number calculated for the following year, reflecting the fact that CF cash flows can be deferred. Consistent with this approach, legacy fund distributions are approximately 9% higher than the benchmark in the year of the CF transaction and 12% higher in the subsequent year, reflecting the deferral of cash flows associated with rolling behavior. These terms are multiplied by the observed DPI and TVPI of CFs (net of their initial investment). For example, if the average CF had immediately returned all capital, the DPI and TVPI of CFs would be 1, the net values of both of these would be zero, and roller's DPI and TVPI would equal those of exiters. This synthetic benchmark provides an approximate way to account for deferred cash flows and CF exposure.

[Figure 8 about here]

Panels (a) and (c) of Figure 8 plot the evolution of TVPI and DPI for CFs relative to a benchmark (BM), measured in years since CF inception. The benchmark is constructed using funds matched on vintage year and fund type. Both panels show that CFs experience substantial increases in value and distributions in the early years following inception. TVPI rises sharply in the first two years and remains above the benchmark throughout the post-inception period, while DPI increases steadily over time and exceeds benchmark distributions during the first four years.

Panels (b) and (d) display the evolution of TVPI and DPI for legacy fund LPs around the CF transaction date relative to the matched benchmark. Following the transaction, rolling LPs receive higher TVPI relative to both exiting LPs and the benchmark. In terms of distributions, exiting LPs receive higher DPI, whereas rolling LPs exhibit lower initial DPI but higher cumulative value over time.

Taken together, our data show that CFs do not underperform traditional funds and may even outperform them. However, these findings should be interpreted with caution. The CF trend is relatively recent, and many of these vehicles have not yet exited their underlying investments. Moreover, we observe an increasing number of CFs and higher exit rates among legacy LPs--- trends that are consistent with rising transfer prices and, consequently, lower expected returns for CF investors.

## 8. Discussion and Conclusion

The ability of PE funds to generate liquidity through exits depends heavily on market conditions. As a result, funds often retain portfolio companies longer than some of their LPs would prefer. CFs are a financial innovation designed to provide liquidity to those LPs. Liquidity seeking investors can exit for cash, with the payouts financed by new investors, while other can “roll” their investments into the new vehicle. In effect, exiting LPs sell their stakes to secondary investors at a price negotiated by the GP.

CFs create LP-specific liquidity without forcing asset-level exits. Investors who need liquidity can raise cash without selling a difficult-to-value slice of the fund’s entire portfolio and without forcing other LPs to exit inefficiently early.

Using a hand-collected dataset of CFs, we document several key results. First, CFs are typically launched by successful legacy funds and involve the transfer of their largest and best-performing

assets. Second, LP rollover rates are extremely low, only about 6%, and are related to LP liquidity conditions and governance constraints. As a result, the investor base changes substantially when assets move into CFs, with specialized secondary funds and wealth-management platforms replacing traditional institutional investors. Third, although the evidence is necessarily preliminary, continuation funds appear to perform at least as well as comparable private equity funds

These facts are consistent with a worldview in which CFs arise from frictions in the private capital market. In a Coasian, frictionless world, CFs would not be necessary. In such a world, if extending the life of a deal had a positive NPV, LPs would always choose to do so. They would borrow at a fair interest rate to finance operations until the fund returned capital, which would more than offset the cost of borrowing. The fact that many LPs do not roll because of liquidity constraints suggests that these constraints are a key driver of CF formation.

Several frictions help explain the emergence of CFs. LPs face liquidity demands and institutional constraints that limit their ability to maintain exposure to long-duration investments, even when those investments have positive expected value. At the same time, asymmetric information about portfolio companies and the difficulty of contracting on GP skill complicate asset sales and make it difficult for outside buyers to value these investments. CFs provide a mechanism that partially alleviates both problems by allowing liquidity provision without forcing inefficient asset sales.

One reason private markets have grown rapidly is their ability to develop institutions that address contracting frictions and facilitate valuable investments. Academic research has devoted considerable attention to the effects of PE on portfolio firms and on the returns earned by the funds. Yet relatively little research studies *why* PE funds are structured the way they are, what frictions give rise to the institutional designs we observe, and how other frictions can change the contracting mechanisms.<sup>8</sup> CFs provide a window into this process. By examining why they arise and how they operate, we gain insight into how financial intermediaries redesign contracts to accommodate illiquid assets, heterogeneous investors, and evolving secondary markets.

The rapid growth of CFs also reflects the increasing institutionalization of secondary markets in private equity. As dedicated secondary investors raise larger pools of capital and develop expertise in pricing individual portfolio companies, the ability to restructure ownership of private

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<sup>8</sup> One paper that takes a first step toward addressing these questions is Axelson, Stromberg, and Weisbach (2009).

assets has expanded dramatically. CF are one manifestation of this broader trend toward more liquid and flexible private capital markets.

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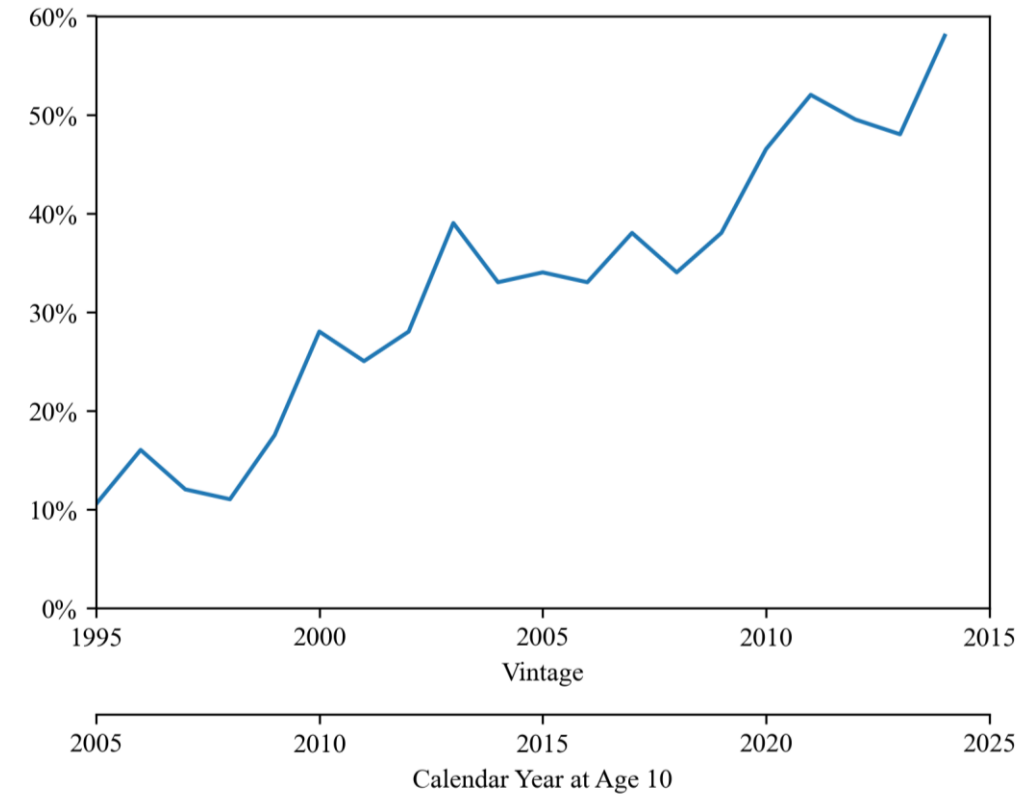
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## Figures and tables

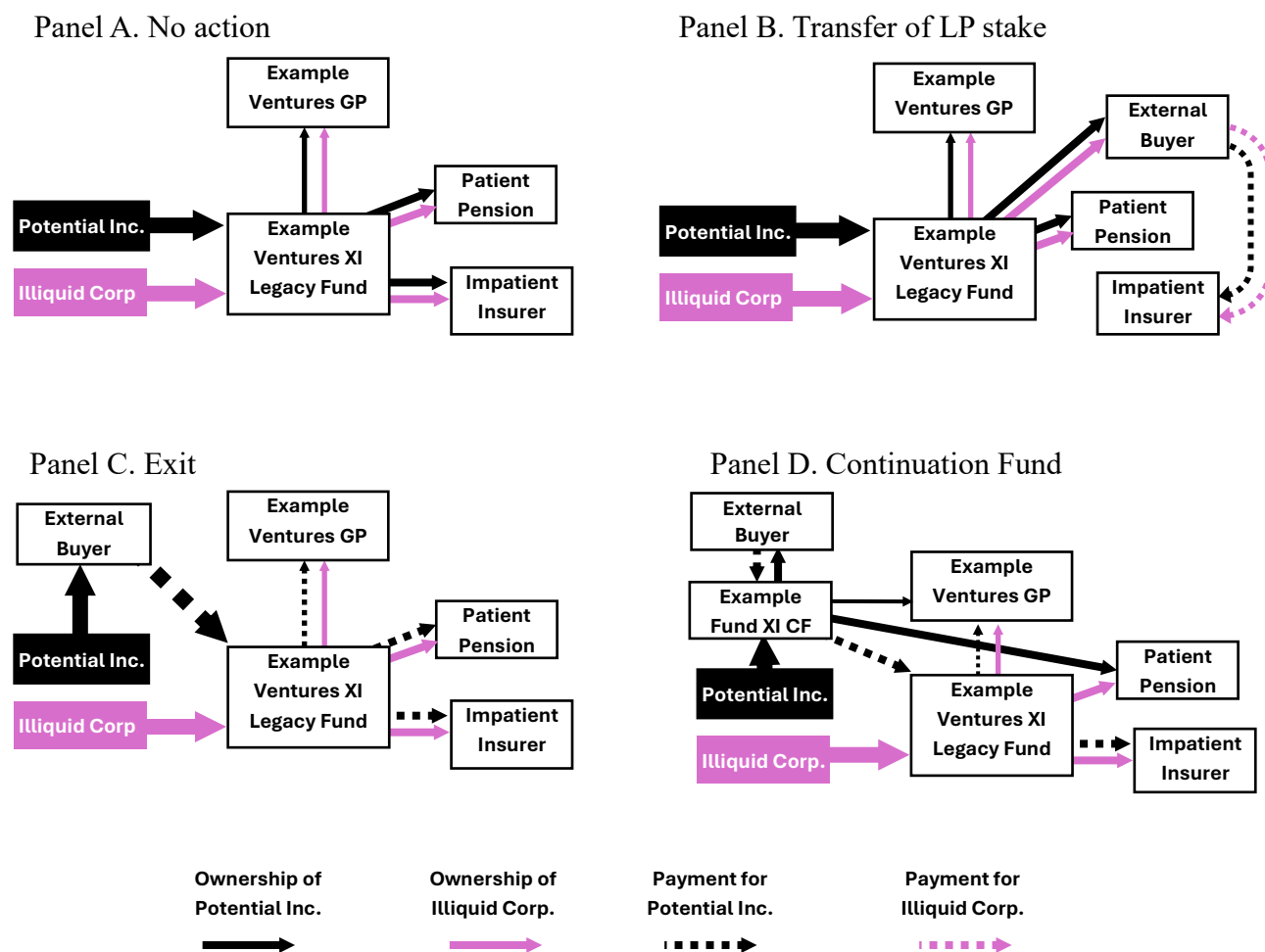
**Figure 1. Dynamics in RVPI measured at funds' 10<sup>th</sup> anniversary.**

This figure plots the median residual value to paid-in capital (RVPI) multiple measured at each fund's tenth anniversary for private equity and venture capital funds in the MSCI-Burgiss global database.



**Figure 2. Overview of three liquidity generation actions.**

This figure provides a schematic overview of how economic interests in underlying fund assets change under different liquidity mechanisms. Panel A shows the baseline case with no transaction. Panel B depicts an LP-led secondary, in which an investor sells its fund interest to a secondary buyer. Panel C presents a portfolio company sale (e.g., a trade sale or IPO), in which the fund exits an investment and distributes proceeds to all LPs. Panel D illustrates a continuation fund transaction, in which the GP transfers selected assets to a newly formed vehicle it manages, allowing legacy LPs to either sell their interests at the negotiated transfer price or roll their exposure into the new vehicle.



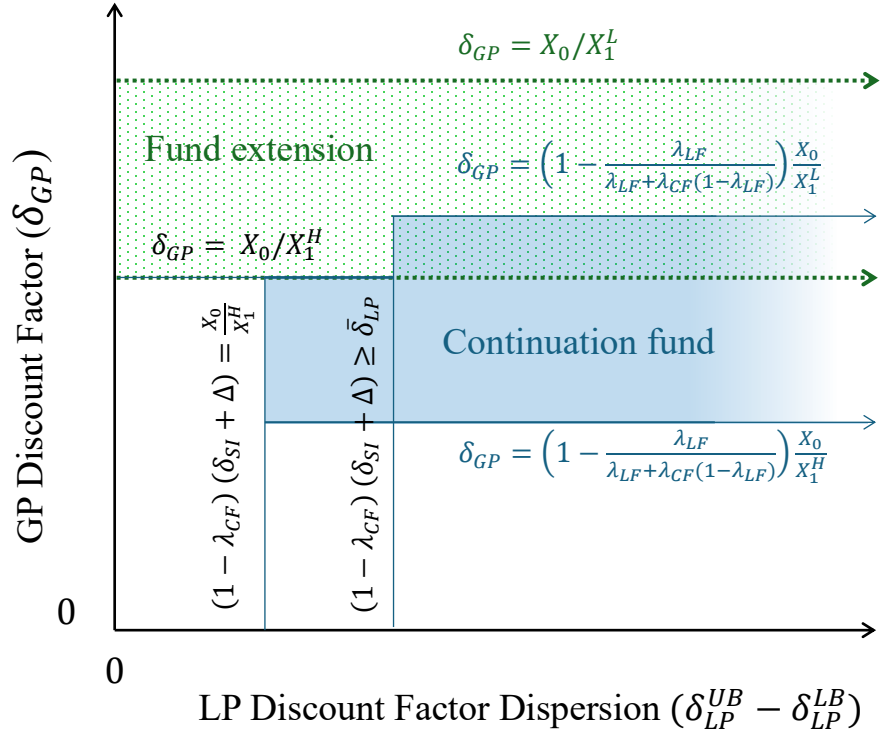
### Figure 3. Private equity liquidity mechanisms by asset scope and investor scope

This figure classifies the main private equity liquidity mechanisms according to whether they operate at the asset level or fund level and whether they affect individual LPs or all LPs.

|             | LP-specific                                                                                                                                                 | All LPs                                                                                                                                                    |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Asset-level | <b>Continuation Fund</b><br>Transfer of selected portfolio companies to a new vehicle, allowing legacy LPs to choose individually whether to sell or roll.  | <b>Secondary buyout deal</b><br>Sale of a portfolio company to another PE sponsor, with proceeds distributed to all LPs.                                   |
| Fund-level  | <b>LP interest sale</b><br>Individual LP sells its fund interest on the secondary market; the GP typically provides consent but does not alter fund assets. | <b>Fund liquidation / NAV lending</b><br>Fund-level liquidity event (e.g., full portfolio liquidation or NAV financing), affecting all LPs simultaneously. |

#### Figure 4. Equilibria Across Parameter Space

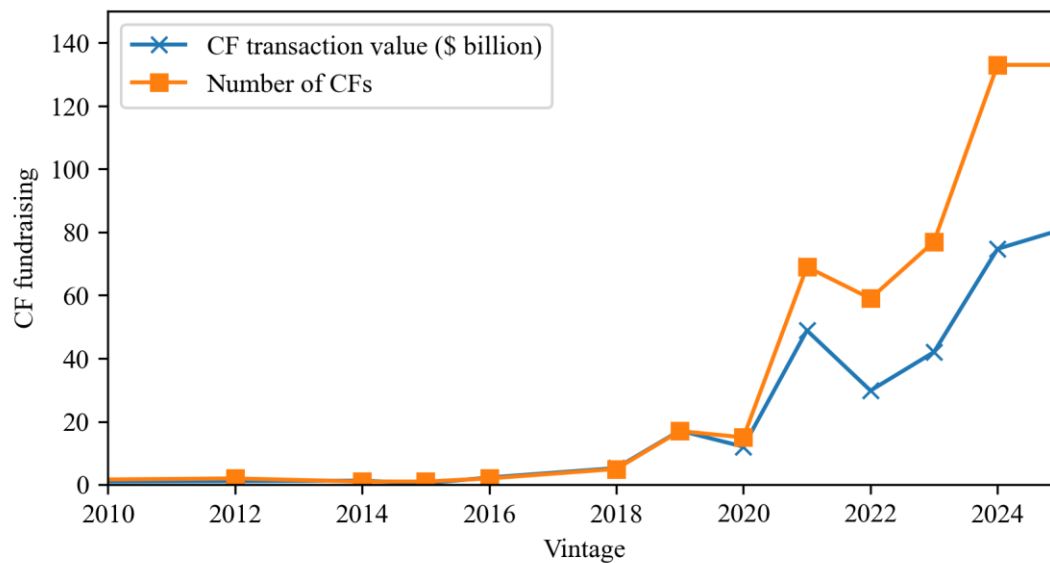
This figure illustrates the model's equilibrium regions as a function of GP and LP discount factors. The y-axis varies the GP discount factor, whereas the x-axis varies the dispersion in LP discount factors ( $\delta_{LP}^{UB} - \delta_{LP}^{LB}$ ), holding the average discount factor fixed.



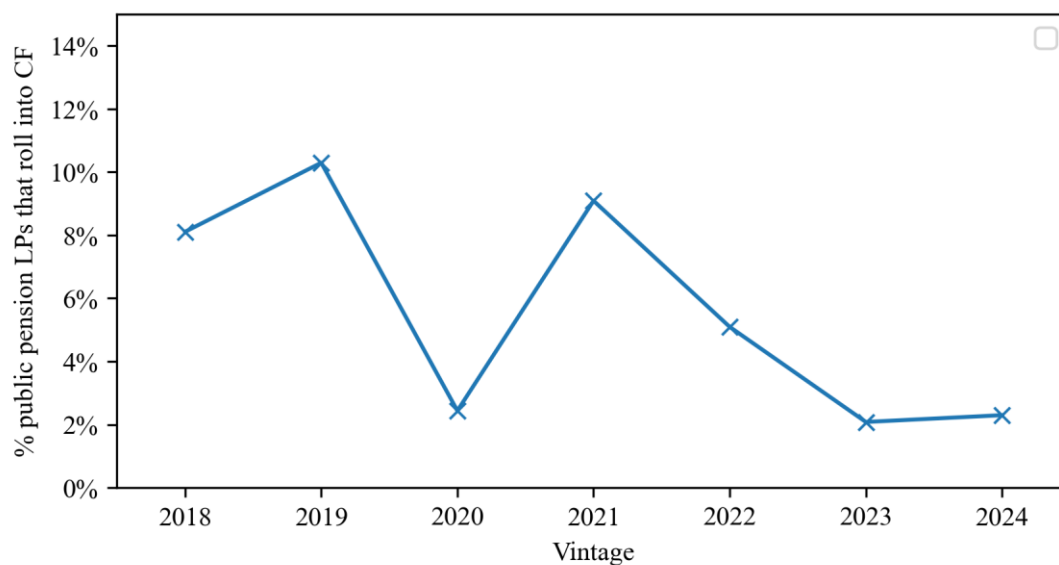
**Figure 5. Trends in the market for continuation funds.**

This figure presents annual trends in continuation fund (CF) activity using our hand-collected data. Panel A plots the number and aggregate transaction value of CFs in our sample. The bars represent total annual CF transaction value, and the dashed line represents the number of CFs. Panel B plots LP rollover rates. The bars show the fraction of LPs that roll into CFs, and the dashed line shows the corresponding fraction among public pension plan LPs only.

Panel A. Value and count of CFs



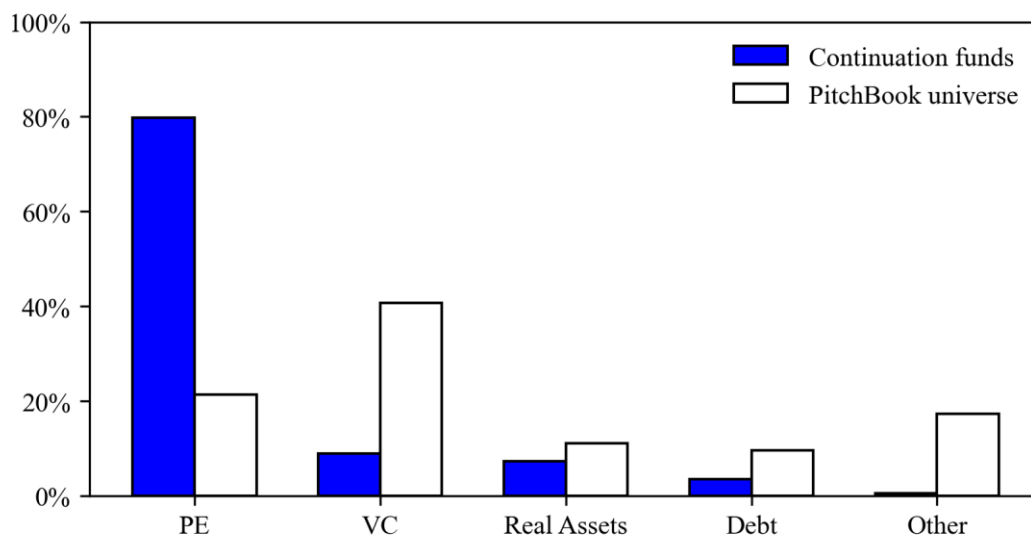
Panel B. Trends in the fraction of rolling investors



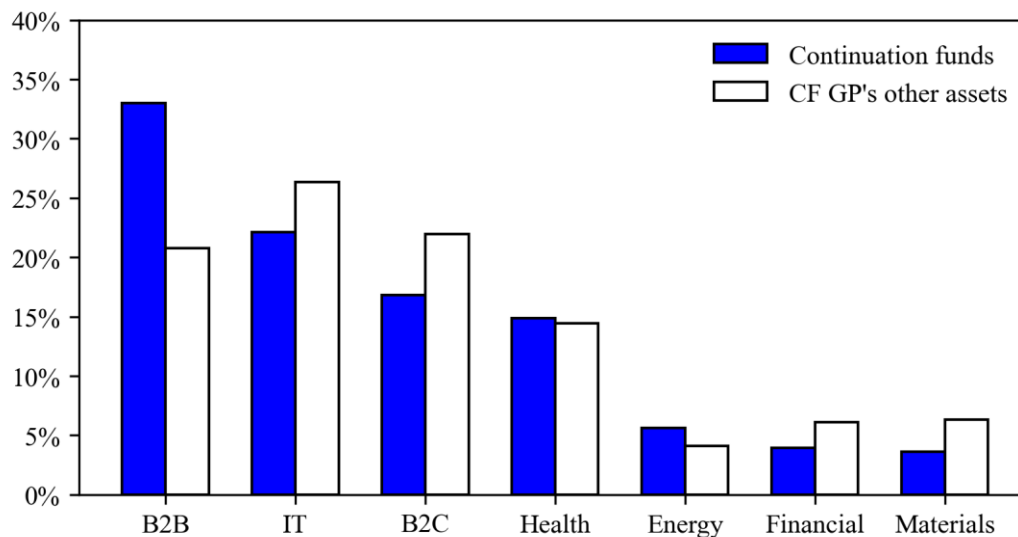
**Figure 6. Continuation vehicles by general partner and asset type.**

This figure plots the distribution of continuation funds (CFs) by general partner type (Panel A.) and type of transferred asset (Panel B.). Panel A compares the prevalence of the firm type among CFs in our hand-collected data (blue) with the PitchBook universe (white). Panel B compares the industry of transferred assets (blue) with the assets of their GPs (white).

Panel A. Continuation funds by general partner type

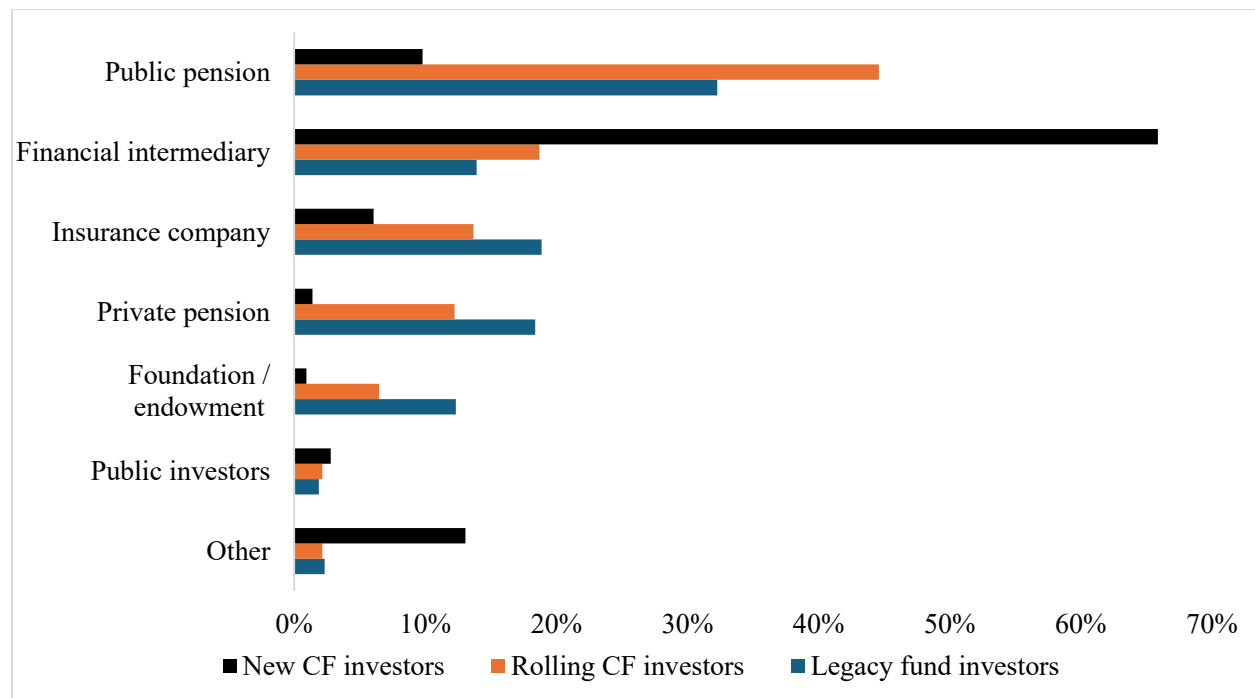


Panel B. Continuation funds by asset type



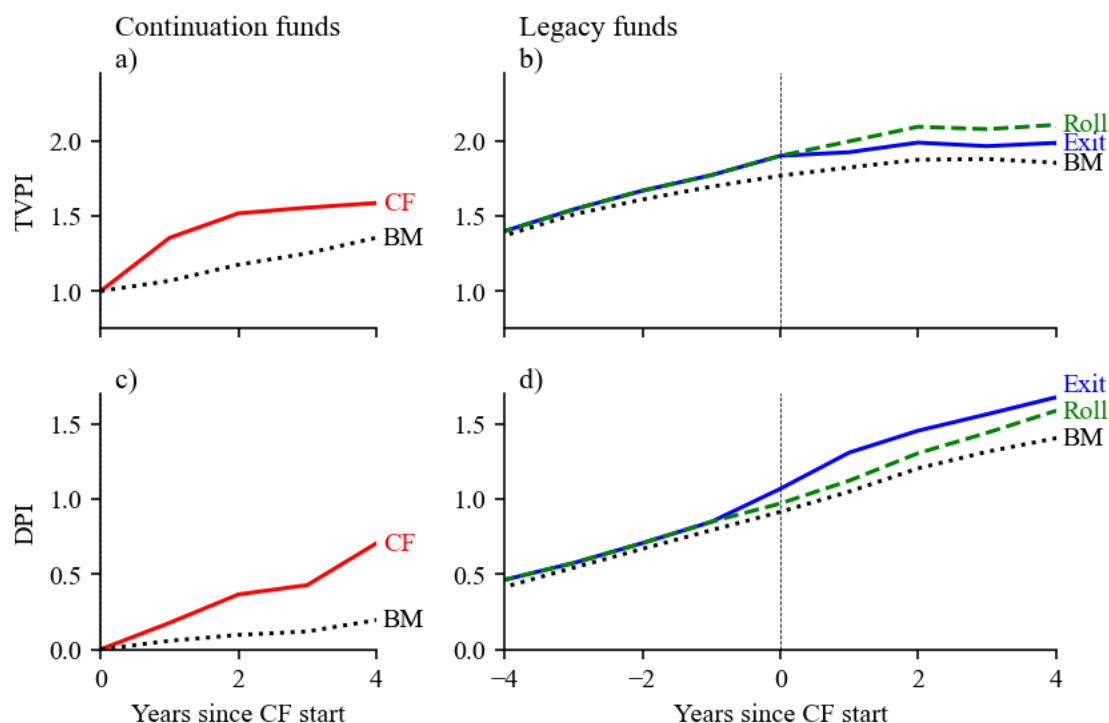
**Figure 7. LP composition: all legacy investors, rolling investors, new investors.**

This figure plots the aggregate LP composition across funds and LPs involved in the asset transfer: LPs of legacy funds, rolling LPs of legacy funds, and new LPs.



**Figure 8. Performance of continuation and legacy funds.**

This figure examines the performance of continuation funds (CFs) and their originating legacy funds. Panels (a) and (c) plot the evolution of total value to paid-in capital (TVPI) and distributions to paid-in capital (DPI) for CFs relative to a benchmark (BM), measured in event time (years since CF inception). Panels (b) and (d) plot TVPI and DPI for legacy funds in event time around the continuation fund transaction (year 0), separately for assets that are rolled into the continuation fund (Roll) and assets that are exited by legacy fund LPs (Exit). The returns of rolled assets are calculated as described in Section 7. Benchmarks are constructed within style-vintage-year buckets and are shown as dotted lines.



**Table 1. Variable definitions.**

| Variable                 | Description                                                                                                                        |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Fund age                 | The difference between the calendar year and a fund's vintage year.                                                                |
| CF initiation (%)        | Equals 100 if a legacy fund initiates a CF in a given year, and 0 otherwise.                                                       |
| First CF initiation (%)  | Equals 100 if a legacy fund initiates its first CF in a given year, and 0 otherwise.                                               |
| LP concentration         | Herfindahl–Hirschman index computed based on the number of LPs belonging to each investor type.                                    |
| LP count                 | Number of LPs in a fund.                                                                                                           |
| Fund size                | Committed capital of a fund in billions of dollars.                                                                                |
| DPI                      | Cumulative distributions divided by cumulative paid-in capital as of a given year.                                                 |
| IRR                      | Net since-inception internal rate of return of the fund, as of a given year.                                                       |
| RVPI                     | Residual value divided by paid-in capital as of a given year.                                                                      |
| Deal size                | Capital invested by the fund in a given portfolio company.                                                                         |
| Asset DPI                | Cumulative distributions divided by paid-in capital for a given portfolio investment, as of a given year.                          |
| Asset IRR                | Net since-inception IRR for a given portfolio investment, as of a given year.                                                      |
| Asset RVPI               | Residual value divided by paid-in capital for a given portfolio investment, as of a given year.                                    |
| LP Roll                  | Equals 1 if an LP rolls its stake from the legacy fund into the continuation fund, and 0 otherwise.                                |
| Contemporaneous rolls    | Equals 1 if the LP rolls at least one other fund stake in the same calendar year, and 0 otherwise.                                 |
| Positive LP PE cashflows | Equals 1 if the LP's total PE distributions exceed its total contributions across all of its PE funds at the beginning of the year |
| Other rollers            | Total number of LPs, excluding the focal LP, that roll into the same continuation fund.                                            |
| Roll decisions           | Total number of continuation fund roll decisions made by the LP in a given calendar year.                                          |

**Table 2. Sample descriptive statistics**

This table presents summary statistics for the main sample of legacy and continuation funds, portfolio assets, and LPs. Panel A reports variables used in the fund-level analysis. Panel B summarizes asset-level characteristics for portfolio companies held by legacy funds in the last observation prior to that fund spawning of a CF. Panel C provides LP-level statistics underlying the analysis of rollover decisions.

Panel A. Fund by year panel

| Variable                | N      | Mean   | Std.  | 25th Pct. | Median | 75th Pct. |
|-------------------------|--------|--------|-------|-----------|--------|-----------|
| Panel year              | 36,364 | 2021.7 | 2.28  | 2020      | 2022   | 2024      |
| Vintage year            | 36,364 | 2014.3 | 4.83  | 2011      | 2015   | 2018      |
| Fund age                | 36,364 | 7.34   | 4.16  | 4.00      | 7.00   | 11.00     |
| CF initiation (%)       | 36,364 | 0.60   | 7.72  | 0.00      | 0.00   | 0.00      |
| First CF initiation (%) | 36,364 | 0.59   | 7.63  | 0.00      | 0.00   | 0.00      |
| Continuation fund (%)   | 36,364 | 0.48   | 6.88  | 0.00      | 0.00   | 0.00      |
| Legacy fund (%)         | 36,364 | 4.15   | 19.94 | 0.00      | 0.00   | 0.00      |
| Venture capital fund    | 36,364 | 0.21   | 0.41  | 0.00      | 0.00   | 0.00      |
| Private equity fund     | 36,364 | 0.49   | 0.50  | 0.00      | 0.00   | 1.00      |
| Real assets fund        | 36,364 | 0.29   | 0.46  | 0.00      | 0.00   | 1.00      |
| LP concentration        | 36,364 | 0.46   | 0.27  | 0.26      | 0.37   | 0.56      |
| LP count                | 36,364 | 14.65  | 19.82 | 3.00      | 8.00   | 18.00     |
| Log fund size           | 36,364 | 6.11   | 1.45  | 5.30      | 6.12   | 7.00      |
| Lagged RVPI             | 36,364 | 1.04   | 19.18 | 0.43      | 0.91   | 1.14      |
| Lagged DPI              | 36,364 | 0.65   | 0.97  | 0.03      | 0.38   | 1.08      |
| Lagged IRR              | 30,973 | 0.13   | 0.20  | 0.05      | 0.12   | 0.20      |

Panel B. Assets in legacy funds prior to the spawning continuation funds

|                       | All assets<br>(N = 2,629) |      | Transferred<br>(N = 2,202) | Kept<br>(N = 427) | Difference |
|-----------------------|---------------------------|------|----------------------------|-------------------|------------|
| Variable              | Mean                      | Std. | Mean                       | Mean              |            |
| Log deal size         | 4.32                      | 1.27 | 4.34                       | 4.31              | 0.03       |
| Winsorized asset RVPI | 1.48                      | 1.21 | 2.02                       | 1.37              | 0.65***    |
| Winsorized asset DPI  | 0.44                      | 1.04 | 0.5                        | 0.42              | 0.08       |
| Winsorized asset IRR  | 0.25                      | 0.46 | 0.41                       | 0.22              | 0.19***    |
| Log asset RVPI        | 0.82                      | 0.41 | 1.01                       | 0.78              | 0.23***    |
| Log asset DPI         | 0.23                      | 0.44 | 0.25                       | 0.23              | 0.02       |
| Log asset IRR         | 0.17                      | 0.31 | 0.29                       | 0.15              | 0.14***    |

**Table 3. Sample descriptive statistics (Continued)**

Panel C. Limited partner roll decisions

| Variable                 | N   | Mean    | Std.    | 25th Pct. | Median  | 75th Pct. |
|--------------------------|-----|---------|---------|-----------|---------|-----------|
| LP roll                  | 911 | 0.05    | 0.22    | 0.00      | 0.00    | 0.00      |
| Contemporaneous rolls    | 911 | 0.05    | 0.22    | 0.00      | 0.00    | 0.00      |
| Positive LP PE cashflows | 911 | 0.61    | 0.49    | 0.00      | 1.00    | 1.00      |
| Other rollers            | 911 | 0.83    | 1.48    | 0.00      | 0.00    | 1.00      |
| Legacy fund age          | 911 | 10.42   | 4.12    | 8.00      | 10.00   | 13.00     |
| Roll decisions           | 911 | 4.16    | 2.70    | 2.00      | 4.00    | 6.00      |
| Legacy fund size (mm)    | 911 | 5040.54 | 4310.63 | 1380.00   | 4131.26 | 7150.00   |
| CF size (mm)             | 670 | 1126.29 | 789.25  | 468.20    | 1000.00 | 1593.00   |

**Table 4. General partner decision to launch a continuation fund.**

This table studies the association between fund characteristics and the likelihood of launching a continuation fund (CF). The sample includes PE, VC, and real asset funds that are younger than 16 years. Funds must have annual performance data in PitchBook. The unit of observation is a fund-year from 2018 onwards. We estimate linear probability models; coefficients are interpreted as percentage-point changes in the probability that a fund launches a CF in a given year. All return measures are lagged by one year. *Private equity* and *Venture capital* are fund-type dummy variables, with real asset funds being the omitted category. Other variable definitions appear in Table 1. Parentheses contain standard errors that are double-clustered by fund vintage year and GP. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

|                    | Continuation fund initiation (%) |                      |                      |                      |                     |                     |
|--------------------|----------------------------------|----------------------|----------------------|----------------------|---------------------|---------------------|
|                    | (1)                              | (2)                  | (3)                  | (4)                  | (5)                 | (6)                 |
| Log RVPI           | 0.655***<br>(0.148)              | 0.755***<br>(0.149)  |                      |                      | 1.076***<br>(0.198) | 1.488***<br>(0.425) |
| Log DPI            | 0.435***<br>(0.091)              | 0.232***<br>(0.084)  |                      |                      | 0.077<br>(0.098)    | 0.008<br>(0.322)    |
| Log IRR            |                                  |                      | 0.829***<br>(0.269)  |                      |                     |                     |
| IRR > 8%           |                                  |                      |                      | 0.247***<br>(0.055)  |                     |                     |
| LP concentration   |                                  | -0.291***<br>(0.070) | -0.315***<br>(0.065) | -0.313***<br>(0.062) | -0.311**<br>(0.152) |                     |
| LP count           |                                  | 0.013***<br>(0.004)  | 0.012***<br>(0.005)  | 0.012**<br>(0.005)   | 0.015***<br>(0.005) |                     |
| Log fund size      |                                  | 0.191***<br>(0.048)  | 0.209***<br>(0.061)  | 0.206***<br>(0.061)  | 0.122***<br>(0.030) |                     |
| Private equity     |                                  | 0.697***<br>(0.156)  | 0.818***<br>(0.168)  | 0.820***<br>(0.164)  |                     |                     |
| Venture capital    |                                  | 0.157*<br>(0.096)    | 0.307**<br>(0.138)   | 0.323**<br>(0.135)   |                     |                     |
| Fund age FE        | Yes                              | Yes                  | Yes                  | Yes                  | Yes                 | Yes                 |
| Calendar year FE   | Yes                              | Yes                  | Yes                  | Yes                  | Yes                 | Yes                 |
| General partner FE |                                  |                      |                      |                      | Yes                 |                     |
| Fund FE            |                                  |                      |                      |                      |                     | Yes                 |
| Dep. variable mean | 0.60%                            | 0.60%                | 0.68%                | 0.68%                | 0.60%               | 0.62%               |
| Observations       | 36,364                           | 36,364               | 30,973               | 30,973               | 36,364              | 34,934              |
| R <sup>2</sup>     | 0.002                            | 0.009                | 0.009                | 0.009                | 0.005               | 0.002               |

**Table 4. Asset-level evidence: probability of transfer conditional on raising a CF**

This table reports association between investment characteristics and likelihood of that investment being transferred into a continuation fund using StepStone data using a linear probability model. The dependent variable is whether an asset is transferred into a CF, considering only the last quarterly report at least one year prior to each legacy fund's first CF. Assets that fully exited prior to that date are excluded. We consider only the first CF launched by each legacy fund. *Log asset RVPI*, *DPI*, and *IRR* are equal to the log of one plus the value of the respective asset-level return measure. *Log deal size* is equal to the log of the initial legacy fund investment into each asset. Asset industry fixed effects are at the GICS sector-level. Legacy fund FE subsume calendar year FE in specifications (1)-(4). Parentheses contain standard errors that are double-clustered by the legacy fund and CF vintage year. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

|                    | Asset transferred   |                    |                     |                     |                     |
|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
|                    | (1)                 | (2)                | (3)                 | (4)                 | (5)                 |
| Log asset RVPI     | 0.171***<br>(0.034) |                    | 0.172***<br>(0.035) |                     | 0.169***<br>(0.034) |
| Log asset DPI      |                     | -0.001<br>(0.019)  | 0.017<br>(0.020)    |                     | 0.013<br>(0.022)    |
| Log asset IRR      |                     |                    |                     | 0.089**<br>(0.04)   |                     |
| Log deal size      | 0.027***<br>(0.009) | 0.020**<br>(0.009) | 0.027***<br>(0.008) | 0.035***<br>(0.011) | 0.003<br>(0.010)    |
| Asset industry FE  | Yes                 | Yes                | Yes                 | Yes                 |                     |
| Legacy fund FE     | Yes                 | Yes                | Yes                 | Yes                 |                     |
| Calendar year FE   |                     |                    |                     |                     | Yes                 |
| Dep. variable mean | 0.162               | 0.162              | 0.162               | 0.163               | 0.162               |
| Observations       | 2,629               | 2,629              | 2,629               | 1,665               | 2,629               |
| R <sup>2</sup>     | 0.28                | 0.31               | 0.35                | 0.18                | 0.22                |

**Table 5. Limited partner decisions to roll into continuation funds.**

This table studies the association between LP and legacy-fund characteristics and an LP's decision to roll its stake into a continuation fund (CF). We estimate linear probability models using our hand-collected CF data. The dependent variable is an indicator for whether an LP rolls into a given continuation fund. The variable *Contemporaneous rolls* equals one if the LP rolls its stake in at least one other fund in the same calendar year. The variable *Positive LP PE cashflows* equals one if the LP's aggregate private-equity (PE) distributions exceed its contributions at the beginning of the year. *Fund age* is the legacy fund age in years at the time of the decision. Other variable definitions appear in Table 1. All specifications include LP fixed effects and year fixed effects. The sample consists of U.S. public institutional investors acting as LPs in legacy funds that raised CFs between 2018 and 2024. Parentheses contain standard errors that are double-clustered by the limited partner and CF vintage year. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

|                          | LP roll decision    |                     |                     |                    |                     |                     |
|--------------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
|                          | (1)                 | (2)                 | (3)                 | (4)                | (5)                 | (6)                 |
| Contemporaneous rolls    | 0.410***<br>(0.058) | 0.405***<br>(0.059) | 0.408***<br>(0.071) |                    |                     |                     |
| Positive LP PE cashflows |                     |                     |                     | 0.042**<br>(0.019) | 0.047**<br>(0.020)  | 0.071***<br>(0.027) |
| Log other rollers        |                     | 0.074***<br>(0.018) | 0.068***<br>(0.019) |                    | 0.078***<br>(0.019) | 0.072***<br>(0.020) |
| Log legacy fund size     |                     | -0.007<br>(0.012)   | -0.007<br>(0.014)   |                    | -0.011<br>(0.013)   | -0.017<br>(0.016)   |
| Log CF fund size         |                     |                     | 0.014<br>(0.027)    |                    |                     | 0.020<br>(0.029)    |
| Log roll decisions       |                     | -0.003<br>(0.017)   | 0.000<br>(0.022)    |                    | 0.001<br>(0.021)    | -0.002<br>(0.027)   |
| Legacy fund age          |                     | 0.010<br>(0.009)    | 0.024*<br>(0.013)   |                    | 0.010<br>(0.009)    | 0.023*<br>(0.013)   |
| Legacy fund age squared  |                     | -0.000<br>(0.000)   | -0.001*<br>(0.001)  |                    | -0.000<br>(0.000)   | -0.001**<br>(0.001) |
| Limited partner FE       | Yes                 | Yes                 | Yes                 | Yes                | Yes                 | Yes                 |
| Calendar year FE         | Yes                 | Yes                 | Yes                 | Yes                | Yes                 | Yes                 |
| Dep. variable mean       | 0.05                | 0.05                | 0.07                | 0.05               | 0.05                | 0.07                |
| Observations             | 911                 | 911                 | 662                 | 911                | 911                 | 662                 |
| R <sup>2</sup>           | 0.28                | 0.31                | 0.34                | 0.17               | 0.21                | 0.26                |

## Online Appendix

### ***PROOF OF THEOREM 2.2.1:***

Working backward, suppose a fund extension was granted. A GP with a type- $t$  asset will keep the asset private if  $\lambda_{LF}X_0 \leq \delta_{GP}\lambda_{LF}X_1^t$ . If the GP prefers an immediate exit for the high-potential asset, it will never be kept private, so the asset can only be kept private if

$$\lambda_{LF}X_0 \leq \delta_{GP}\lambda_{LF}X_1^H \Leftrightarrow X_0/X_1^H \leq \delta_{GP}.$$

Keeping the asset private unconditionally is inefficient by assumption, so the LPs will not offer a fund extension if the GP prefers to keep low potential assets private. Thus, a fund extension will only be offered if the GP with low potential assets prefers an immediate sale:

$$\lambda_{LF}X_0 \geq \delta_{GP}\lambda_{LF}X_1^L \Leftrightarrow X_0/X_1^L \geq \delta_{GP}.$$

Finally, the LPs will prevent the asset from being kept private by not offering an extension if keeping the asset private reduces their welfare.

### ***PROOF OF THEOREM 2.2.2:***

First, consider pooling equilibria where all GPs propose CF. Such CF cannot be approved, as the payoff to LPs in this unconditional continuation equilibrium is less than the immediate sale scenario. Specifically, as  $X_0 > (1-p)X_1^L + pX_1^H$ , rolling LPs do worse than an immediate sale

$$v_0^{RLP} = \delta_{LP}^i(1 - \lambda_{LF})(1 - \lambda_{CF})((1-p)X_1^L + pX_1^H) < (1 - \lambda_{LF})X_0,$$

and exiting investors also do worse as they receive

$$v_0^{ELP} = (1 - \lambda_{LF})P = \delta_{SI}(1 - \lambda_{LF})(1 - \lambda_{CF})((1-p)X_1^L + pX_1^H) < (1 - \lambda_{LF})X_0,$$

with the value of  $P$  following from the secondary investor's incentive compatibility condition. As aggregate LP utility is lower from the CF than from liquidating, the CF is rejected, no information is revealed by GP actions, and only the equilibria from Theorem 2.2.1 are possible.

Second, consider the pooling equilibrium where no GPs propose a CF. This can be supported by LPs believing any GP proposing a CF is of average type. As LPs reject any sought CF (as above) and no information is produced in the initial CF segment, this again reduces to Theorem 2.2.1.

Third, consider the separating equilibrium where only the GP with low-potential assets seeks a CF. In equilibrium, LPs reject this CF and GP type is revealed. We can only support the equilibria in Theorem 2.2.1: GPs will only voluntarily reveal their type if they are not hurt by doing

so, and thus such voluntary revelation does not alter the subgame's GP incentive compatibility constraints.

In particular, any separating strategy that reveals GP type must satisfy incentive compatibility for both types. High types must weakly prefer proposing a CF to mimicking low types, and low types must be deterred from mimicking high types. The latter constraint is exactly the condition that prevents inefficient continuation of low-quality assets and generates the upper incentive bound in Theorem 2.2.1. Thus, partial revelation does not expand the set of feasible fund extension equilibria.

Finally, consider the separating equilibrium where only the GP with high-potential assets seeks a CF. If that CF is rejected in equilibrium, we are in a case analogous to the third scenario where we start the fund extension subgame with the GP type revealed, so consider only the case where the high type's CF proposal is approved by LPs.

On the equilibrium path, a GP that does not seek a CF always has low-potential assets, and so is forced to sell those assets immediately. A GP that does a CF has high-potential assets and gets price

$$P = (1 - \lambda_{CF}) \delta_{SI} X_1^H.$$

Consider first the LP choice of whether to allow the CF. If the CF happens, each LP's payoff is

$$(1 - \lambda_{LF}) (1 - \lambda_{CF}) X_1^H \max\{\delta_{SI}, \delta_{LP}^i\}$$

and aggregate LP welfare is

$$(1 - \lambda_{LF}) (1 - \lambda_{CF}) X_1^H \int_0^1 \max\{\delta_{SI}, \delta_{LP}^i\} di.$$

If the CF does not happen, LPs have seen that the GP has high-potential assets and so have payoff

$$(1 - \lambda_{LF}) X_1^H \bar{\delta}_{LP}$$

if the asset is kept private and  $X_0$  if it is sold immediately. Analogous to Theorem 2.2.1, the GP will only keep the asset private if  $X_0/X_1^H < \delta_{GP}$ , so the aggregate LP payoff to rejecting the CF is

$$(1 - \lambda_{LF}) \left( \max\{X_0, \bar{\delta}_{LP} X_1^H\} - \mathbf{I}[X_1^H \delta_{GP} < X_0] \mathbf{I}[X_1^H \bar{\delta}_{LP} > X_0] (\bar{\delta}_{LP} X_1^H - X_0) \right),$$

which is the payoff that maximizes LP utility, adjusted for early exits if the GP forces it.

Rescaling both payoffs by  $(1 - \lambda_{LF}) X_1^H$ , the CF will thus be approved by LPs if

$$(1 - \lambda_{CF}) \int_0^1 \max\{\delta_{SI}, \delta_{LP}^i\} di \geq \max\{X_0/X_1^H, \bar{\delta}_{LP}\} - \mathbf{I}[\delta_{GP} < X_0/X_1^H < \bar{\delta}_{LP}] (\bar{\delta}_{LP} - X_0/X_1^H).$$

**Table OA1. GP decision to start a continuation fund: robustness**

This table re-estimates Table 3 using additional specifications. Columns 1-2 estimate the model results using a proportional hazard (Cox) model and report log hazard ratios. Columns 3-6 incorporate additional control variables. All return measures are lagged by one calendar year. *Private equity* and *Venture capital* are fund-type dummy variables, with real asset funds being the omitted category. Variable definitions appear in Table 1, with Winsorized variables being Winsorized at the 1% level. Parentheses contain standard errors that are double-clustered by the legacy fund and CF vintage year. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

|                    | (1)                  | (2)                  | (3)                  | (4)                  | (5)                  | (6)                 |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
| Log RVPI           | 0.792***<br>(0.143)  |                      |                      |                      | 0.751***<br>(0.148)  | 0.753***<br>(0.150) |
| Log DPI            | 0.363*<br>(0.210)    |                      |                      |                      | 0.276***<br>(0.086)  | 0.233***<br>(0.084) |
| Log IRR            |                      | 1.581***<br>(0.456)  |                      |                      |                      |                     |
| Winsorized RVPI    |                      |                      | 0.408***<br>(0.091)  |                      |                      |                     |
| Winsorized DPI     |                      |                      | 0.096**<br>(0.049)   |                      |                      |                     |
| Winsorized IRR     |                      |                      |                      | 0.873***<br>(0.268)  |                      |                     |
| LP concentration   | -1.301***<br>(0.350) | -1.250***<br>(0.375) | -0.289***<br>(0.070) | -0.314***<br>(0.064) | -0.431***<br>(0.075) |                     |
| LP count           | 0.005**<br>(0.002)   | 0.004*<br>(0.003)    | 0.013***<br>(0.004)  | 0.012***<br>(0.005)  |                      | 0.013***<br>(0.004) |
| Log fund size      | 0.340***<br>(0.059)  | 0.331***<br>(0.062)  | 0.193***<br>(0.048)  | 0.209***<br>(0.062)  | 0.282***<br>(0.056)  | 0.212***<br>(0.052) |
| Private equity     | 1.102***<br>(0.165)  | 1.113***<br>(0.172)  | 0.703***<br>(0.161)  | 0.808***<br>(0.167)  | 0.731***<br>(0.155)  | 0.710***<br>(0.159) |
| Venture capital    | -0.076<br>(0.248)    | 0.020<br>(0.262)     | 0.146<br>(0.101)     | 0.296**<br>(0.138)   | 0.201**<br>(0.100)   | 0.190*<br>(0.100)   |
| Fund age FE        |                      | Yes                  | Yes                  | Yes                  | Yes                  | Yes                 |
| Calendar year FE   | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                 |
| Dep. variable mean |                      |                      | 0.61%                | 0.69%                | 0.61%                | 0.61%               |
| Observations       | 35,579               | 30,272               | 35,965               | 30,646               | 35,965               | 35,965              |
| Model              | Cox                  | Cox                  | LPM                  | LPM                  | LPM                  | LPM                 |
| R <sup>2</sup>     |                      |                      | 0.009                | 0.009                | 0.009                | 0.009               |

**Table OA2. Fund-level LP composition.**

This table compares continuation vehicles to other funds based on fraction of various LP types. This analysis considers all U.S. funds in PitchBook with vintages between 2018 and 2024. *Continuation Fund* is a dummy variable equal to one if the fund in question is a continuation fund. Other variable definitions appear in Table 1. Parentheses contain heteroskedasticity robust standard errors clustered at the GP firm level. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

| VARIABLES          | (1)<br>Log fund<br>size | (2)<br>Proportion:<br>public<br>pensions | (3)<br>Proportion:<br>funds of<br>funds | (4)<br>Proportion:<br>foundations or<br>endowments | (5)<br>Proportion:<br>insurance<br>companies |
|--------------------|-------------------------|------------------------------------------|-----------------------------------------|----------------------------------------------------|----------------------------------------------|
| Continuation fund  | -0.657***<br>(0.150)    | -0.246***<br>(0.040)                     | 0.197***<br>(0.034)                     | -0.043***<br>(0.012)                               | -0.007<br>(0.015)                            |
| Fund vintage FE    | Yes                     | Yes                                      | Yes                                     | Yes                                                | Yes                                          |
| Fund type FE       | Yes                     | Yes                                      | Yes                                     | Yes                                                | Yes                                          |
| General partner FE | Yes                     | Yes                                      | Yes                                     | Yes                                                | Yes                                          |
| Dep. variable mean | 5.91                    | 0.39                                     | 0.04                                    | 0.11                                               | 0.04                                         |
| Observations       | 5707                    | 5707                                     | 5707                                    | 5707                                               | 5707                                         |
| R <sup>2</sup>     | 0.62                    | 0.65                                     | 0.58                                    | 0.64                                               | 0.53                                         |