Do GPs truly present fair value? The case of continuation funds

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Revision Summary

Our revised paper enhances the internal consistency of our utility-based model by addressing the reviewer's primary concern: the incorrect assumption that the first-order condition in the GP's utility function yields a maximum, when in fact the function is convex, and the solution corresponds to a local minimum. We carefully revisit the functional form of the GP's utility and verify the reviewer's mathematical claim that the second derivative is strictly positive, confirming that the utility function is globally convex in fair value. Based on this, we reinterpret the analytical results to reflect that the first-order condition does not identify an optimal fair value under maximization. To resolve this issue, we reformulate the GP's decision-making process as a constrained optimization problem, bound by strategic and institutional considerations. Rather than assuming an interior maximum, we clarify that the GP's fair value decision is determined by navigating a range of acceptable outcomes shaped by the preferences of exit LPs, rolling LPs, new LPs, and the structural approval rules of the LPAC. We also modify the equilibrium analysis and revise key propositions to reflect that the GP operates within this constrained space, balancing short-term compensation incentives against reputational and fundraising considerations. In addition to correcting the mathematical core of the model, we revise and clarify related sections of the manuscript to improve its overall coherence and academic rigor. For example, we update the simulation results to reflect the bounded rationality and external constraints faced by GPs, rather than falsely assuming an interior optimal point. We rephrase key claims and terminology in the theoretical sections to avoid confusion and ensure that the narrative surrounding GP behavior remains aligned with institutional realities in private equity transactions.

Highlights

·Our model shows how GPs may distort fair value in continuation fund transactions.
·Utility-based and game-theoretic approaches reveal GP incentives under asymmetric information.
·Fair value distortion decreases with a higher rolling LP ratio and stronger fundraising prospects.
·LPAC's composition critically affects valuation outcomes and governance effectiveness.

Abstract

This study develops a utility-based, game-theoretic model to examine whether General Partners (GPs) have incentives to distort asset fair values in continuation funds, a growing structure in private equity. Our model shows how GPs may manipulate valuations to maximize fees, particularly when asymmetric information and misaligned incentives exist between exit and rolling investors. Fair value distortion is reduced when the proportion of rolling limited partners (LPs) is high and when the GP has stronger prospects of raising a follow-on fund. Considering that fair value approval in continuation fund transactions depends on the Limited Partner Advisory Committee composition, we propose governance recommendations based on the bargaining power of exit and rolling LPs to enhance valuation integrity.

Keywords: Conflict of interest; Continuation fund; Limited partner advisory committee; Private equity; Valuation governance

JEL Classifications: D4 (Market Structure, Pricing, and Design); D82 (Asymmetric and Private Information; Mechanism Design); G23 (Non-bank Financial Institutions; Financial Instruments; Institutional Investors); G35 (Private Equity; Venture Capital; Financial Markets and Institutions); K22 (Business and Securities Law)

1. Introduction

Private equity has established itself as a key investment vehicle that enhances corporate value through active investment strategies such as mergers and acquisitions and corporate restructuring. Buyout funds characteristically pursue majority ownership in target firms, enabling them to exert substantial control and initiate operational reforms. These reforms often encompass the replacement of senior management and the strategic divestiture of peripheral business units, both of which are aimed at enhancing firm value and ultimately improving investment performance (Cumming et al., 2007; Guo et al., 2011). Rather than undermining firms' capacity for long-term innovation, private equity ownership appears to enhance the impact and focus of R&D efforts, as evidenced by post-buyout improvements in patent citation intensity and portfolio specialization (Lerner et al., 2011). However, private equity funds typically operate as closed-end vehicles with a fixed lifespan of 10 to 12 years, during which investor redemption is restricted. Upon maturity, assets must be liquidated to return capital to investors, regardless of prevailing market conditions (Kaplan & Schoar, 2005; Phalippou, 2009). This forced exit structure can lead to suboptimal outcomes, particularly in economic downturns, where distressed sales may significantly impair fund performance. The inherently illiquid nature of private equity investments thus plays a critical role in shaping the long-term decision-making of investors (Lerner & Schoar, 2004).

In recent years, the private equity market has witnessed the growing use of alternative investment structures, such as co-investments, alongside traditional fund vehicles. These structures have played an increasingly important role in supporting the liquidity management strategies of limited partners (LPs) and facilitating the portfolio management strategies of general partners (GPs)

(Braun et al., 2020). The increasing use of alternative vehicles reflects a shift toward more customized contractual arrangements in private equity, allowing limited partners to better align capital commitments with liquidity needs while simultaneously enabling GPs to allocate capital with greater strategic flexibility outside traditional fund structures (Lerner et al., 2022). Among them, continuation funds have garnered particular attention as a solution to the structural limitation of fixed-term private equity funds. A continuation fund is typically a GP-led secondary transaction in which selected assets from an existing fund are transferred to a new vehicle, capitalized by a mix of rolling LPs and new LPs (Kastiel & Nili, 2024). This mechanism allows the GP to extend the holding period of high-potential assets, thereby deferring exits during periods of capital market dislocation or IPO inactivity.

Figure 1 illustrates the typical structure of a continuation fund transaction. Under this structure, the GP transfers one or more assets from an existing fund to a newly created continuation vehicle, typically at a negotiated fair value. Legacy investors are given the option to either roll over their stakes into the continuation fund or exit and receive liquidity. Simultaneously, new LPs may join the continuation fund, injecting fresh capital. This mechanism reconfigures asset ownership while offering flexibility in exit timing and capital allocation. Continuation funds provide an avenue for GPs to retain control over portfolio companies and continue implementing value-creation strategies without being forced to sell prematurely due to fund expiration. Under this structure, the GP establishes a new vehicle that acquires one or more assets from the existing fund. Legacy investors are typically given the option to either roll over their stakes into the new fund or to cash out. Rolling LPs thus continue their exposure to the selected assets, while cashing-out LPs receive liquidity. New investors, on the other hand, are provided with a unique opportunity to co-invest in proven assets with known performance histories, often with shorter durations until exit. From the GP's perspective, continuation funds offer substantial flexibility in managing exit timing and capital allocation. In periods of market volatility or downturns, they allow GPs to avoid fire sales and instead maintain a stable position until more favorable exit opportunities arise. Moreover, continuation funds address the misalignment between fund lifecycles and the timing required to fully realize the value of high-growth portfolio companies. As such, they are particularly useful when portfolio assets have not yet reached their full potential by the end of the fund's term, or when LPs seek to preserve exposure to outperforming assets beyond the fund's original duration.

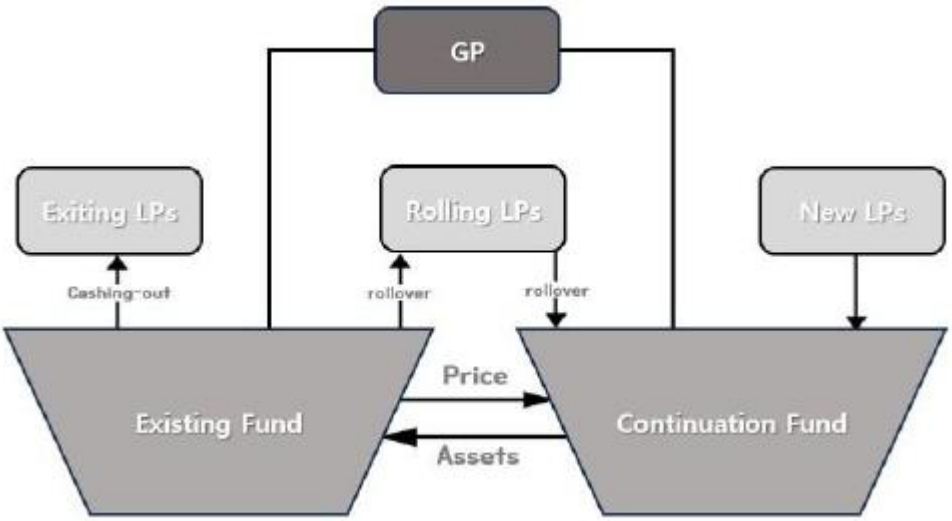

Figure 1. Structure of continuation fund
Note. This figure illustrates the structure of a continuation fund. The GP oversees the transition of assets from the existing fund to the continuation fund at a determined price. Exit LPs choose to cash out whereas rolling LPs elect to roll over their investments into the new fund. New LPs enter the continuation fund, providing fresh capital. The arrows indicate the movement of assets and capital flows between entities in the process.

Despite their growing popularity, continuation funds have raised significant concerns about conflicts of interest. Because the GP acts simultaneously as a seller (on behalf of the original fund) and a buyer (on behalf of the new vehicle), they occupy a structurally conflicted position in the transaction. This dual agency problem intensifies when the GPs are responsible for setting the fair value of the transferred assets. In response, most continuation fund transactions require approval by the Limited Partner Advisory Committee (LPAC), a governing body composed of a subset of LPs often led by the largest contributors. The LPAC serves a limited but important function. It reviews and approves material decisions that may give rise to potential conflicts of interest, including asset valuations, fund extensions, and waivers of investment restrictions. However, the effectiveness of the LPAC in mitigating conflicts is often questioned, as LPAC members tend to have close relationships with the GP and may lack the incentives or independence to provide robust oversight (Kastiel & Nili, 2024). In practice, the LPAC's ability to reject unfair pricing or discipline the GP is limited, especially when members rely on the GP for future co-investment opportunities or favorable treatment.

In recognition of these concerns, the U.S. Securities and Exchange Commission (SEC) introduced new regulatory initiatives in 2022 aimed at enhancing transparency in GP-led secondary transactions (Clayton, 2024). These rules, finalized in August 2023, mandate that GPs

provide LPs with a third-party fairness opinion in continuation fund deals.[1] The objective is to reduce information asymmetry and ensure that asset valuations are independently verified, thereby promoting procedural fairness. In parallel, the Institutional Limited Partners Association (ILPA) published industry guidelines in May 2023 that set forth best practices for managing conflicts, price discovery, and disclosure in continuation funds.[2] However, the legal landscape shifted in June 2024 when the U.S. Court of Appeals for the Fifth Circuit invalidated the SEC's private fund adviser rules.[3] The court ruled that the SEC had exceeded its statutory authority under Sections 206(4) and 211(h) of the Investment Advisers Act, thereby nullifying the entire set of regulations. As a result, a significant regulatory safeguard intended to monitor GP-led transactions, particularly with regard to fair value determination has been effectively eliminated. The absence of binding legal standards increases reliance on the internal governance of fund structures, such as LPAC review, which, as previously noted, may be inadequate due to informational asymmetries and relationship-driven dynamics.

This regulatory void highlights the urgent need to better understand how GPs may strategically behave in continuation fund settings, particularly when granted wide discretion over asset valuation. While prior literature has extensively discussed the structural features and transaction mechanics of continuation vehicles, relatively little is known about the strategic interaction between GPs and LPs in determining fair value under conditions of conflict and asymmetric information. This study addresses this gap by developing a formal utility-based and game-theoretic framework to analyze the GP's fair value decision. We model how GPs weigh short-term compensation incentives against long-term reputational costs, especially as influenced by the rolling LP ratio and the probability of raising a follow-on fund. We also explore the strategic response of both exit LPs and rolling LPs and assess how the composition of the LPAC affects the range of viable transaction outcomes. Based on these analyses, the paper derives practical policy implications for promoting valuation integrity in continuation fund transactions and enhancing investor protection mechanisms in the absence of enforceable external regulation.

The remainder of this study is structured as follows. Section 2 reviews the relevant literature on continuation funds, valuation conflicts, and the role of LPACs. Section 3 develops the utility-based model characterizing the GP's optimal fair value decision. Section 4 extends the analysis by incorporating a game-theoretic framework that models strategic interaction among GPs, exit LPs, rolling LPs, and the LPAC. Section 5 synthesizes the model's implications and offers policy recommendations. Section 6 summarizes and concludes the study.

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[1] Securities and Exchange Commission (2023). SEC Enhances the Regulation of Private Fund Advisers (https://www.sec.gov/newsroom/press-releases/2023-155).

[2] Institutional Limited Partners Association (2023). Continuation funds: Considerations for limited partners and general partners (https://ilpa.org).

[3] Securities and Exchange Commission (2024). Announcement regarding private fund advisers rules (https://www.sec.gov/announcement-regarding-private-fund-advisers-rules).

2. Related Literature and Research Background

Information asymmetries are pervasive in the private equity market, where LPs frequently depend on GPs for key insights into deal selection and portfolio company performance (Fang et al., 2015). This reliance limits LPs' ability to verify or challenge reported valuations, particularly given the limited disclosure obligations in private equity compared to public markets (Cumming et al., 2009; Spindler, 2009). As a result, the risk that GPs may strategically distort fair value assessments is heightened, especially in transactions such as continuation funds where asset pricing directly affects performance-based compensation. Several studies have documented GPs' tendency to manage the timing of capital distributions to maximize their own incentives, suggesting that similar strategic behavior may arise in continuation vehicles (Robinson & Sensoy, 2013). GPs may also inflate Net Asset Value (NAV) estimates near fund maturity, which can artificially enhance the appearance of fund performance (Phalippou & Gottschalg, 2009). Since track record is a key determinant of a GP's ability to raise successive funds, and because performance persistence in private equity is relatively weak, GPs face strong incentives to overstate performance in the absence of effective oversight (Harris et al., 2023).

GPs possess superior information about portfolio companies and internal valuation models, which they may use strategically to influence the reported NAV (Nadauld et al., 2019). Moreover, private equity fund performance is closely tied to market liquidity risk, and the investment outcomes of GP-managed funds are significantly influenced by broader capital market conditions (Franzoni et al., 2012). This asymmetric access to information is particularly problematic in GP-led secondary transactions, such as continuation funds, where GPs have discretion over pricing and timing, and where traditional market-based price discovery mechanisms are limited. To mitigate these risks, international guidelines such as the International Private Equity and Venture Capital Valuation (IPEV) standards have emphasized the importance of conservative and market-based valuation principles (IPEV, 2022). These guidelines aim to prevent GPs from engaging in overly optimistic or self-serving valuation practices. Similarly, the UK Financial Conduct Authority (FCA) has underscored the role of independent third-party appraisals and the adoption of robust, market-driven valuation methods in alternative investment markets.[4]

In the context of continuation funds, the introduction of fairness opinions has been proposed as a safeguard to ensure pricing integrity. However, if the GP is allowed to select the appraisal provider, such opinions may devolve into a mere formality rather than serving as a genuine check on mispricing. Moreover, NAV-based valuations may fail to adequately capture the uncertainty arising from discount rate volatility or market illiquidity (Boyer et al., 2023). Another factor contributing to valuation concerns is the imbalance in bargaining power between GPs and LPs. Large institutional LPs often negotiate preferential terms through side letters or special

[4] Financial Conduct Authority (2025). Private market valuation practices (https://www.fca.org.uk/publications/multi-firm-reviews/private-market-valuation-practices).

agreements, potentially undermining the transparency and fairness of valuation practices for the broader investor base (Clayton, 2020). Meanwhile, some LPs, particularly those facing short-term performance pressures, may lack the incentive or capacity to challenge GP valuations, increasing the risk of accepting unfavorable contractual terms (Clayton, 2022).

Given these structural vulnerabilities, there is a growing call for institutional reforms to enhance the fairness and credibility of fair value assessments in private equity. Existing governance mechanisms, such as the LPAC, have been criticized for their limited independence and capacity to monitor GPs effectively. In response, several policy initiatives including regulatory mandates for third-party fairness opinions and standard-setting efforts by industry associations aim to improve transparency and mitigate conflicts of interest in GP-led secondary transactions. Nevertheless, the effectiveness of these mechanisms remains mixed. Where enforcement is weak or regulatory coverage is withdrawn, such as in the recent invalidation of SEC rules, private equity markets must rely on improved internal governance, stronger investor coordination, and well-aligned incentive structures to uphold valuation integrity.

Despite the increasing prevalence of continuation funds within the private equity ecosystem, the academic literature has yet to fully address how incentive misalignments and information asymmetries may systematically distort fair value assessments in these transactions. This study seeks to fill this gap by analyzing the structural and contractual conditions under which valuation distortions are most likely to arise in continuation funds. Building upon and extending prior research, the present analysis aims to contribute to a deeper understanding of valuation governance in GP-led secondary markets and to inform policy debates surrounding investor protection and market integrity.

3. GP Valuation in Continuation Funds

In continuation fund transactions, the GP plays a central role in determining the fair value of assets transferred from an existing fund to a newly formed vehicle. Because the GP acts simultaneously as the seller for the original fund and the buyer for the continuation vehicle, this dual role introduces an inherent conflict of interest. In particular, the GP has an incentive to strategically manipulate valuations in order to maximize management and performance fees. Such behavior creates misaligned incentives among three key investor groups: exit LPs, who seek to cash out; rolling LPs, who choose to retain exposure to the asset; and new LPs, who are entering the vehicle for the first time. These conflicting interests can significantly affect investor participation and the success of the transaction itself. If the GP overstates the asset's fair value, exit LPs benefit from receiving higher liquidity payouts, while new LPs face increased exposure to downside risk. On the other hand, if the GP understates the valuation, existing LPs may reject the transaction, leading to its failure. As such, the GP faces a complex trade-off between short-term compensation and long-term credibility.

This section presents a formal utility-based model to analyze how GPs make fair value decisions in such a setting. The model defines two key variables in the process by which the GP

determines fair value: the liquidity preference of existing LPs and the proportion of rolling LPs (p_{LP}) that results from it. The liquidity preference of LPs refers to the probability (λ_{LP}) that an LP will choose to exit and liquidate their position at the time of a continuation fund transaction. A higher λ_{LP} indicates a stronger tendency toward cashing out. Accordingly, when the LPs' liquidity preference falls below a certain threshold, the proportion of LPs who choose to roll over their interest is then defined by the cumulative distribution function.

Definition 1. *Let the liquidity preference of LPs be denoted by* $\lambda_{LP} \in [0,1]$*, representing the probability that an LP chooses to exit. The rolling LP ratio* p_{LP}*, i.e., the proportion of LPs who choose to remain in the continuation vehicle, is defined as:*

$$p_{LP} = G(\lambda_{LP}), \tag{1}$$

where $G(\cdot)$ *is the cumulative distribution function of LPs' liquidity preference.*

GPs' fair value decisions are also influenced by reputational concerns related to follow-on fundraising. Empirical studies show that past fund performance significantly affects a GP's ability to raise subsequent funds (Heinkel & Stoughton, 1994; Chung et al., 2012). Because of this, GPs may have incentives to inflate NAVs at the time of the transaction particularly when reputation is weak or follow-on capital is uncertain (Brown et al., 2019; Cumming & Walz, 2010). However, NAVs that are significantly overstated are likely to be revised downward over time, and LPs can retrospectively detect such manipulation (Barber & Yasuda, 2017). This dynamic suggests that GPs weigh both immediate compensation and long-term fundraising ability in determining fair value. We formalize the reputational dimension by modeling the GP's expected probability of successfully raising a follow-on fund, which depends on the extent of fair value distortion and the observed proportion of rolling LPs. Specifically, we define the distortion function and follow-on success probability as follows.

Definition 2. *The GP's follow-on fund success probability is modeled as:*

$$F_F(p_{LP}, D(V^*)) = e^{-\gamma D(V^*)} \cdot h(p_{LP}), \tag{2}$$

for which:

i) *Let* V^* *denote the fair value of the continuation fund.*

ii) $D(V^*) = (V^* - V_{true})^2$ *is the fair value distortion term.*

iii) $h(p_{LP}) = \frac{1}{1+e^{-\kappa(p_{LP}-c)}}$ *is a logistic function mapping the rolling LP ratio into a smooth reputation signal.*

with parameters:

$\kappa > 0$*: sensitivity to the rolling LP ratio,*

$c \in (0,1)$*: inflection point of the reputational impact,*

$\gamma > 0$*: reputational penalty for valuation distortion.*

The function in Equation (2) captures how reputational concerns, reflected in the rolling LP ratio, affect the GP's incentive to distort fair value. The GP determines the optimal fair value V^* of continuation fund assets based on the proportion of rolling LPs. The GP's utility function is composed of three primary components: management fees, performance-based fees, and the expected value of follow-on fundraising. Consistent with the incentive structure commonly observed in private equity, GPs are assumed to maximize their utility by strategically setting valuations that balance current compensation with long-term fundraising objectives (Axelson et al., 2009). Under these assumptions, the GP selects the fair value V^* that maximizes its overall utility, conditional on both investor composition and reputational concerns.

Proposition 1. *GPs select the fair value V^* that maximizes its utility.*
Let the GP's utility function be defined as:

$$U_{GP} = \alpha V^* + \beta max(0, V^* - S_0) - \lambda D(V^*) + \delta F_F(p_{LP}, D(V^*)), \quad (3)$$

where
α: management fee rate,
β: performance fee rate,
λ: penalty on valuation distortion,
δ: follow-on sensitivity coefficient,
V_{true} : fundamental value of the asset.

To determine the optimal fair value V^*, the GP maximizes the utility function defined in Proposition 1 by solving the first-order condition.

$$\frac{dU_{GP}}{dV^*} = \alpha + \beta_{\{V^* > S_0\}} - 2\lambda(V^* - V_{true}) - 2\gamma\delta h(p_{LP})(V^* - V_{true})e^{-\gamma(V^* - V_{true})^2} \quad (4)$$

Theorem 1. *Let the fair value distortion function $D(V^*) = (V^* - V_{true})^2$, and assume that $h(p_{LP}) > 0$. Then the optimal fair value V^* that maximizes the GP's utility satisfies:*

$$\frac{dU_{GP}}{dV^*} = 0 \quad (5)$$

This condition admits a closed-form solution under two valuation regimes (with or without performance compensation), which are derived in Proposition 2.

Lemma 1. *For the first-order condition stated in Theorem 1 to characterize a global maximum, the GP's utility function must be strictly concave in V^*.*
Then, the second derivative of U_{GP} with respect to V^* is given by:

$$\frac{d^2U_{GP}}{d(V^*)^2} = -2\lambda - 2\gamma^2\delta h(p_{LP})e^{-\gamma(V^* - V_{true})^2} + \varepsilon(V^*), \quad (6)$$

where
λ>0: distortion penalty,
γ, δ>0: follow-on fund sensitivity and discounting,

$h(p_{LP}) \in (0,1)$*: logistic function of rolling LP ratio,*
$\varepsilon(V^*)$*: higher-order adjustment term capturing marginal curvature effects.*

Because all coefficients of the squared terms are strictly positive, and the exponential term is strictly positive and bounded, the second derivative is strictly negative for all V^**. That is,*

$$\frac{d^2U_{GP}}{d(V^*)^2} < 0, \qquad \forall V^* \tag{7}$$

Thus, U_{GP} is strictly concave, and any solution to the first-order condition is a unique global maximum. Solving this yields the closed-form solution under two valuation regimes.

Proposition 2. *Let* $V^* \in \mathbb{R}_+$ *denote the GP's optimal fair value strategy. Then, the solution to the first-order condition in Theorem 1 is suggested in each of the following cases:*

Case 1: $V^* > S_0$

$$V^* = V_{true} - \frac{1}{2\gamma}\ln\left(\frac{\alpha+\beta-\lambda}{2\gamma\delta h(p_{LP})}\right) \tag{8}$$

Case 2: $V^* \leq S_0$

$$V^* = V_{true} - \frac{1}{2\gamma}\ln\left(\frac{\alpha-\lambda}{2\gamma\delta h(p_{LP})}\right) \tag{9}$$

These expressions characterize the GP's fair value decision depending on whether the valuation exceeds the performance compensation threshold S_0. The optimal value increases with performance incentives β, and decreases with penalty sensitivity λ, fundraising weight δ, and rolling LP scrutiny $h(p_{LP})$.

Lemma 2. *For the solution in Proposition 2 to be valid, the logarithmic terms must be well-defined and real-valued.*

$$\alpha - \lambda > 0 \tag{10}$$

and, in the performance fee regime:

$$\alpha + \beta - \lambda > 0 \tag{11}$$

These inequalities ensure that the arguments inside the natural logarithms are strictly positive, thereby preventing undefined or complex results. Economically, they imply that the distortion penalty λ must not exceed the GP's marginal incentive from management and performance fees.

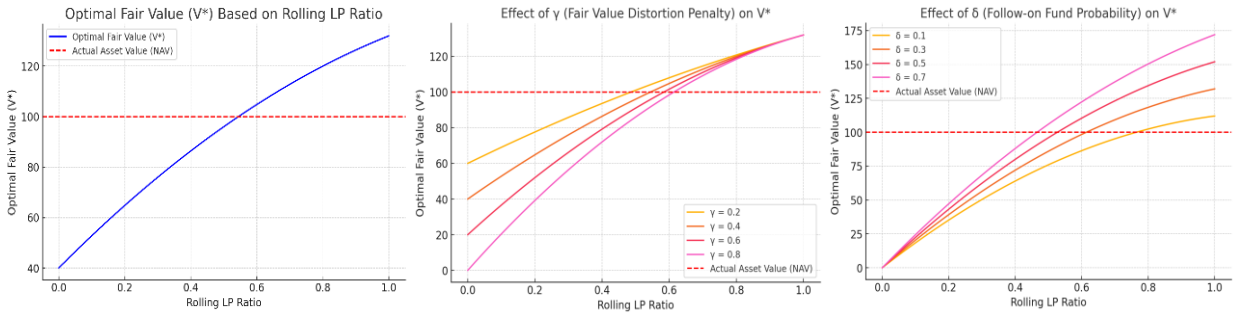

Figure 2. Optimal fair value of GP with rolling LP ratio change

Note. This figure presents the simulation results for the GP's optimal fair value choice V^* in continuation funds under varying strategic and institutional parameters. The left panel shows the relationship between the rolling LP ratio (x-axis) and the selected fair value V^* (y-axis). The blue solid line indicates V^* and the red dashed line denotes the NAV. The middle panel plots V^* against the fair value distortion penalty γ, which represents the reputational cost of deviating from NAV. The right panel illustrates the relationship between the follow-on fund probability δ and V^*. Each panel isolates the effect of a single parameter on the GP's fair value choice.

To better understand how the GP's valuation behavior responds to different structural incentives, we simulate the closed-form solutions derived in Proposition 2 across varying parameter settings. The simulation results reveal systematic patterns in the optimal fair value V^* depending on the strength of governance mechanisms and incentive weights. First, as the rolling LP ratio p_{LP} increases, the reputational pressure exerted on the GP intensifies through the logistic adjustment term $h(p_{LP})$. This heightened scrutiny incentivizes the GP to report fair values closer to the true asset value V_{true}, thereby reducing valuation distortion. The model implies that GPs facing a higher proportion of continuing investors are less likely to overstate NAV, as misreporting may be more easily detected by informed LPs who remain in the vehicle. Second, increasing the distortion penalty parameter γ strengthens the exponential cost of deviating from V_{true}, which further disciplines the GP's valuation decision. When the reputational risk of mispricing is sufficiently large, the GP optimally selects a more conservative valuation to avoid long-term fundraising setbacks. Third, a higher weight on follow-on fundraising δ, which captures the relative weight placed on future fundraising utility, similarly leads to more accurate fair value assessments. GPs that place greater emphasis on long-term relationships and capital access are more likely to align their reported NAVs with the underlying fundamentals of the asset. Taken together, the simulations suggest that valuation distortion is most severe when short-term compensation incentives dominate and oversight mechanisms are weak. In contrast, strong governance characterized by a high rolling LP ratio, robust distortion penalties, and forward-looking GP preferences can significantly mitigate the risk of mispricing in continuation fund transactions.

4. Decision Problem in Continuation Funds

The process of determining the fair value V^* in continuation funds can be understood as a strategic decision-making game between the GP and various types of LPs. In this game-theoretic setting, the GP initiates the transaction by proposing a fair value for the transferred asset, which must then be accepted or rejected by other participants.

Definition 3. *The continuation fund valuation game consists of the following participants: the GP, exit LPs (who seek liquidity), rolling LPs (who reinvest), and new LPs (who newly subscribe). The GP proposes a fair value V^*, which is subject to LPAC approval and investor acceptance.*

After the GP proposes a valuation, the LPAC of the original fund reviews the proposal and votes on its approval. The decision rule, as stipulated in most Limited Partnership Agreements (LPAs), requires a simple or supermajority vote typically two-thirds for the valuation to proceed. If the LPAC rejects the proposed value, the transaction is terminated immediately. New investors assess the appropriateness of the GP's valuation only after receiving approval from the LPAC. Based on this assessment, they decide whether to accept the proposed valuation. If the new LPs consent, the continuation fund is established; otherwise, the transaction fails. This sequential structure implies that the GP must strategically choose a valuation acceptable to all parties to maximize utility. Each investor group also acts strategically to maximize its expected payoff, depending on its investment horizon and objectives. Each LP group's acceptance decision is driven by its expected return. Exit LPs assess the proposed fair value based on the return it offers relative to their initial capital contribution. Let S_0 denote the original investment, and V^* the fair value proposed by the GP. The exit LP's expected return r_E is:

$$r_E = \frac{V^* - S_0}{S_0} \tag{12}$$

However, if the transaction does not occur, the GP must liquidate the asset at the prevailing market price S_1. Thus, exit LPs are willing to accept the continuation fund deal only if $V^* \geq S_1$. New LPs, by contrast, base their participation decision on future asset performance. Let S_2 denote the terminal value of the asset at the end of the continuation fund's investment horizon and let $\mathbb{E}[S_2]$ represent the expected value of the asset at time 2. The expected return for new LPs, denoted r_N, is given by:

$$r_N = \frac{\mathbb{E}[S_2] - V^*}{V^*} \tag{13}$$

To participate, new LPs must expect a return at least equal to their hurdle rate $\bar{r}_N$. This leads to the upper bound condition:

$$V^* \leq \frac{\mathbb{E}[S_2]}{1 + \bar{r}_N} \tag{14}$$

Combining these two conditions, the range of feasible fair values from the perspective of market participants is:

$$S_1 \leq V^* \leq \frac{\mathbb{E}[S_2]}{1+\bar{r}_N} \tag{15}$$

This range is further constrained by the LPAC, which must approve the GP's proposed value. The LPAC represents the original fund's LPs and is assumed, in this model, to act collectively in reflecting the preferences of both exit and rolling LPs. The acceptable range of valuations must lie between the minimum acceptable value for exit LPs (S_E) and the maximum acceptable value for rolling LPs (S_R):

$$S_E \leq V^* \leq S_R \tag{16}$$

Therefore, the GP must set a valuation that satisfies all of the above constraints simultaneously:

$$\max(S_E, S_1) \leq V^* \leq \min\left(S_R, \frac{\mathbb{E}[S_2]}{1+\bar{r}_N}\right) \tag{17}$$

In practice, the LPAC's decision is governed by voting thresholds specified in the LPA often requiring a supermajority of two-thirds. As such, the composition of the LPAC, particularly the share of rolling LPs (p_{LP}), significantly affects whether the proposed fair value is accepted.

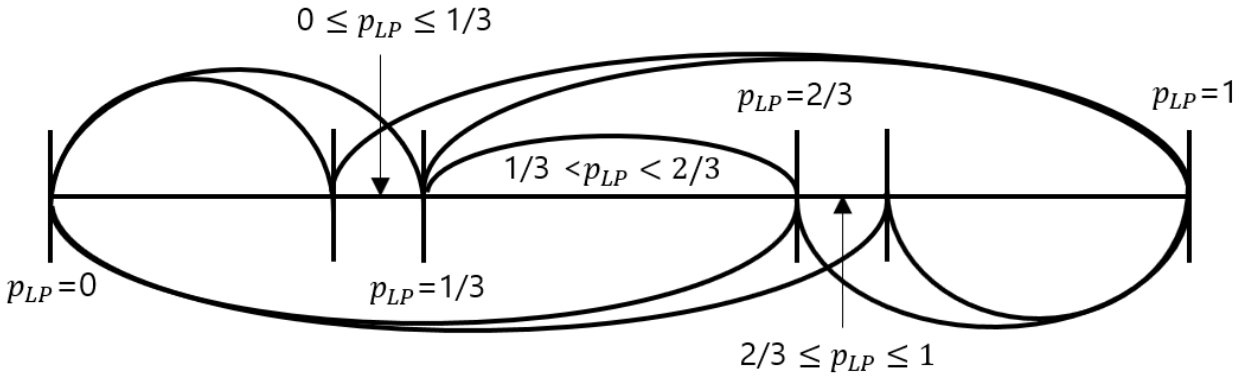

Figure 3. Rolling LP proportion on LPAC approval decisions

Note. This figure illustrates the relationship between the proportion of rolling LPs (p_{LP}) in the LPAC and the resulting approval dynamics in a continuation fund. The x-axis represents the proportion of rolling LPs (p_{LP}), ranging from 0 to 1. The arrows indicate the directional influence of different p_{LP} ranges on LPAC decision outcomes. LPAC decisions are assumed to require a two-thirds majority, as defined by the LPA. The thresholds at p_{LP}= 1/3 and p_{LP}= 2/3 divide the intervals in which different groups may influence the approval outcome.

Figure 3 shows how the proportion of rolling LPs in the LPAC affects the decision-making outcomes in continuation fund transactions. When the proportion of rolling LPs is at least two-thirds ($p_{LP} \geq 2/3$), they hold a decisive majority and tend to support the lowest acceptable fair value (S_R). On the other hand, when their proportion is one-third or less ($p_{LP} \leq 1/3$), exit LPs dominate and are more likely to approve the highest fair value (S_E). When the proportion lies between one-third and two-thirds ($1/3 < p_{LP} < 2/3$), neither group has a clear majority, raising the probability of a deadlock in LPAC approvals.

Definition 4.
Exit LP acceptance probability:

$$f_E(V^*) = e^{-\gamma_E(V^* - S_E)}, \quad for \;\; V^* \in [S_E, \infty) \tag{18}$$

Rolling LP acceptance probability:

$$f_R(V^*) = 1 - e^{-\gamma_R(S_R - V^*)}, \quad for \;\; V^* \in (0, S_R], \tag{19}$$

where:
$\gamma_E, \gamma_R > 0$ *capture the price sensitivity of exit and rolling LPs, respectively.*

Lemma 2. If the LPAC is in a stalemate region such that $1/3 < p_{LP} < 2/3$, then a unique equilibrium fair value V_{eq} exists that satisfies:

$$f_E(V_{eq}) = f_R(V_{eq}) \tag{20}$$

This point represents a valuation at which the strength of support from exit and rolling LPs is balanced, making V_{eq} the most acceptable compromise in the absence of majority dominance.

Proposition 3. *Let* $p_{LP} \in [0,1]$ *denote the proportion of rolling LPs in the LPAC. Then the final fair value selected through the LPAC approval mechanism is given by:*

$$V^*(p_{LP}) = \begin{cases} S_E, & 0 \leq p_{LP} \leq \frac{1}{3} \\ V_{eq}, & \frac{1}{3} < p_{LP} < \frac{2}{3} \\ S_R, & \frac{2}{3} \leq p_{LP} \leq 1 \end{cases} \tag{21}$$

In conclusion, the GP's valuation decision must take into account not only the financial expectations of different LP groups but also the institutional mechanics of LPAC approval. The optimal fair value V^* emerges as a solution that simultaneously satisfies the strategic constraints imposed by exit LPs, new LPs, rolling LPs, and the structural voting dynamics of the LPAC. While a fully representative LPAC would help ensure fairness, in practice, misalignments and informational asymmetries may allow the GP to influence outcomes in ways that compromise valuation integrity.

5. Policy Implication

This study demonstrates that in continuation fund transactions, GPs have strong incentives to strategically adjust asset valuations to maximize their utility. These findings are consistent with prior literature suggesting that GPs seek to optimize their long-term compensation structures by growing assets under management and increasing their likelihood of raising follow-on funds (Metrick & Yasuda, 2010). Such valuation distortions are especially likely under severe information asymmetry, where LPs rely heavily on GP-provided disclosures. Our theoretical model indicates that the likelihood of fair value distortion decreases as the proportion of rolling LPs increases. However, when the rolling LP ratio is low, GPs are more likely to exploit information asymmetries by presenting inflated or otherwise biased valuations to LPs. This finding underscores the need for additional mechanisms to ensure valuation credibility in transactions involving relatively few rolling LPs.

One policy recommendation is for LPs to demand more frequent and detailed reporting from GPs when the rolling LP ratio is low. According to Johan and Zhang (2021), reporting frequency is a key determinant of information asymmetry in private markets, and LPs who request more frequent updates are more likely to mitigate the risks associated with strategic misreporting. Another critical recommendation is the selection of independent valuation agents. Currently, GPs often retain control over the appointment of third-party advisors, which creates a risk of biased assessments. Fairness opinions provided by investment banks may be subject to pressure from GP clients, leading to conflicts of interest and diminished credibility (Bebchuk & Kahan, 1989). To address this issue, LPACs should be granted the authority to approve or veto the selection of valuation firms, ensuring a more impartial review process.

However, the effectiveness of LPACs in enforcing valuation discipline is often limited. LPACs are typically composed of a small number of large LPs usually between five and twelve members who often have pre-existing relationships with the GP. These members are frequently selected at the discretion of the GP, which may compromise their independence and reduce their willingness to challenge valuation decisions. This concern is further amplified by the fact that large institutional investors possess superior information access and due diligence capabilities, allowing them to mitigate information asymmetry more effectively than their smaller counterparts (Cumming et al., 2024). As a result, the institutional investors may have less incentive to scrutinize GP-provided valuations or press for more stringent oversight mechanisms, particularly when they have secured favorable economic terms through side letters. Consequently, LPACs may function more as symbolic oversight bodies than as effective fiduciaries for the broader investor base. In addition, asymmetries in negotiation power further exacerbate valuation concerns. Empirical studies suggest that stronger parties in fund contracts are more likely to negotiate favorable terms, including provisions that may weaken overall governance (Albert & Triantis, 2012; Morley, 2014). In the private equity space, large institutional investors often use side letters to obtain preferential treatment, potentially undermining the fairness of the fund for smaller LPs (de Fontenay & Nili, 2023). Similar dynamics may arise in continuation funds, where large legacy LPs negotiate rolling

terms such as reduced management fees that are not disclosed or made available to all investors. Such preferential agreements may also distort LPAC decision-making. For instance, if the LPAC consists primarily of rolling LPs who have secured favorable economic terms through side letters, they may be more inclined to approve the GP's proposed fair value even if it does not reflect the interests of the broader LP community. To mitigate this, we recommend the universal adoption of Most Favored Nation (MFN) clauses in LPAs, which would ensure that any preferential terms granted to a subset of LPs are extended to all investors equally.

We propose extending fair value approval beyond the LPAC to include a broader base of LPs through a formal voting mechanism. Specifically, we suggest requiring a two-thirds supermajority vote among all LPs to approve the GP's proposed fair value in continuation fund transactions. This approach would reduce the reliance on a small group of potentially conflicted LPAC members and more accurately reflect the preferences of the full investor base. LPAC members, often being large institutional investors with diversified portfolios and stable liquidity positions, may have incentives that diverge from those of smaller or more liquidity-constrained LPs. As such, relying solely on LPAC approval may skew fair value decisions in favor of the GP. By expanding the voting process to all LPs, the approval mechanism becomes more representative, reducing the risk of systematic bias and increasing the legitimacy of continuation fund transactions. This recommendation finds precedent in the Korean market, where continuation fund deals require unanimous consent from both the transferring and receiving fund investors. While unanimity may be too strict for global practice, adopting a two-thirds approval threshold can strike a balance between procedural rigor and transactional feasibility. Allowing for broader LP participation while maintaining a high bar for approval may improve the fairness and transparency of valuation outcomes in GP-led secondary transactions.

Private equity funds are highly sensitive to capital re-commitments from LPs as GPs must continuously raise successive funds to sustain their operations (Phalippou et al., 2018). In repeated transactions or when reputational concerns are significant, contracts tend to be self-enforcing even in the absence of legal enforcement mechanisms (Schwartz & Scott, 2003). This dynamic functions as a self-correcting mechanism against opportunistic behavior by GPs, particularly within the relational and private contractual environment of private equity. In addition, in common law jurisdictions such as the United States, where legal enforcement is generally strong, private equity contracts can incorporate a wide range of provisions that finely align the interests of GPs and LPs (Lerner & Schoar, 2005). Accordingly, rather than introducing or tightening regulatory interventions, policymakers should focus on issuing guidelines that reflect recent best practices to help mitigate information asymmetries and empower LPs to negotiate fairer contracts. As contractual fairness improves, continuation fund agreements are likely to become more efficient and better aligned with investor interests.

6. Conclusion

This study explores the conflict of interest and information asymmetry inherent in continuation fund transactions through a utility-based and game-theoretic framework. While continuation funds represent an innovative solution to the structural limitations of traditional private equity vehicles allowing GPs to extend the holding period of key assets, they also introduce significant governance concerns. In particular, because GPs are granted discretion over fair value assessments, there is considerable potential for valuation manipulation that may disadvantage LPs, especially under opaque conditions. We construct a theoretical model in which the GP determines the optimal fair value by maximizing its utility, considering both short-term incentives (e.g., management and performance fees) and long-term considerations (e.g., reputation and follow-on fundraising). The model incorporates key structural variables including LPs' liquidity preferences and the composition of the LPAC. The analysis shows that as the proportion of exit-oriented LPs increases, the GP is more likely to exploit its information advantage to distort fair value in its favor. In contrast, when the share of rolling LPs is high, the GP faces greater scrutiny and is more likely to report fair values aligned with fundamental asset valuations.

While continuation funds represent an important mechanism for extending the investment horizon of private equity vehicles, they remain underexplored in both academic literature and industry discourse. By addressing these institutional challenges, this study aims to support the development of continuation funds into a more transparent and effective structure that can be widely considered by all participants in the private equity market.

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