

Dry powder in Private Equity

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1. Definition/description

“*Keep your powder dry*” (New York Times, February 1997). Attributed to Olivier Cromwell at the Battle of Edgehill in 1642, this maxim has been rephrased and reused in various situations to mean “wait for taking action, but be ready to take action if it is necessary” (Cambridge University Press). In a private equity fund, the dry powder refers to the part of the capital which is committed to the fund by investors (the limited partners or LPs) and that remains unused and yet to be invested by the general partner (GP) of the fund. In other words, dry powder refers to the excess cash, unspent capital or unused capital in a private equity fund that is available for investment purpose.

Synonyms: Unspent capital, untapped fund, unused capital, uninvested capital, excess cash

2. Introduction

Global assets under management (AUM) in private equity reached \$9.3 trillion at the end of September 2022, a threefold-increase over the last decade¹. (Source: Preqin Pro, 2023). Dry powder has grown consistently with the AUM and represents approximately 30% of the AUM: \$2.5 trillion has yet to be invested (Source: Preqin Pro, 2023). The volume of dry powder has raised concerns on a possible “bubble to burst” in the private markets. Public opinion frequently states that this excess cash has pushed valuations of private assets to high levels and create buying pressure (Financial Times, *The private equity bubble is bound to burst*, 2019). The academic literature has investigated recently the determinants and consequences of dry powder and how it interferes in the alignment of interests between the GP and LPs of the fund.

The article starts by explaining the private equity model and the role of dry powder as well as the academic evidence on its determinants. Next it examines the consequences of dry powder on investment decisions and performance.

3. Private equity model and dry powder

Private equity funds have a limited life of 10 years, split generally in two sub-periods of five years. During the investment phase, the GP will progressively call the capital committed to the fund by the LPs and will deploy the dry powder over the investment phase.

The deployment speed of dry powder has been shown to be related to GP skills and reputation as well as to market conditions. Lambert et al. (2023) examine the level of dry powder in VC and LBO funds and give empirical evidence that GP with better track record (in the form of

¹ US private equity AUM reached \$4.7 trillion end of September 2022, consisting in an increase of a factor 2 over the last decade.

higher past fund performance), in fundraising phase as well as highly reputable and more experienced GP tend to keep lower level of dry powder at the end of their investing period. Robinson and Sensoy (2016) provide evidence of pro-cyclicality in cash flows (calls and distribution) in both LBO and VC funds. This has the consequence that dry powder should accumulate more in bad market conditions.

Figure 1 plots the level of dry powder in global and US private equity funds over the period 2000 to 2022.

Insert Figure 1

Dry powder has more than doubled over the last decade as AUM increased by a factor of almost 3 (2.85) for global PE funds and by a factor 2 (2.27) for US PE funds. Dry powder represents approximately 30% of the committed capital in 2021 – 2022 down from more than 40% two decades ago. Market conditions might affect the level of dry powder held in private equity funds as dry powder accumulates more in bad market conditions. Consistently with Robinson and Sensoy (2016), the level of dry powder is expected to be more sensitive to market conditions in VC funds.

The deployment rate of dry powder will also differ across fund types since the cash buffer serves different purposes depending on the strategy pursued by the private equity fund. In a VC fund, powder (i.e. capital) is kept dry (i.e. available) in order to benefit of financial slack: this allows for reinvestment at a later stage in the companies in portfolio conditional to progress on a series of milestones. As pointed out in Chakraborty and Ewens (2018), VCs commonly invest in the initial financing round of a startup while keeping aside one to two times the initial investment amount for future reinvestments. Staggering the investment enables VC funds to maintain the option to abandon a startup if the startup fails to reach its expected target stage (Kaplan and Stromberg, 2003). VC funds that successfully raise capital for another fund tend to increase investment activity before fundraising and display median dry powder of 30% of the total committed capital (Chakraborty and Ewens, 2018).

The situation differs sharply in an LBO fund where the fund relies on a mix of ex ante and ex post financing in the form of debt (Axelson et al., 2009). The ex ante financing allows the GP to seize good target opportunities and to deploy capital progressively during the investment phase, keeping aside some dry powder. The fund however cannot proceed to new investments after the investment phase and will therefore need to deploy the capital during the investment period. Descriptive statistics from Ljungqvist and Richardson (2003), Ljungqvist et al. (2020) and Lambert et al. (2023) show that on average LBO funds spend 60-70% of their committed capital by the third year after the vintage year but that there exists heterogeneity in the investment pattern among the funds. The funds generally need to comply with a clause that requires 70% of their committed capital has to be invested before launching a new fund (Chakraborty and Ewens, 2018; Hüther, 2022). With regard to buyout funds, the theoretical framework of Ljungqvist et al. (2020) establishes that GP investment or draw-down rate will be directly related to market conditions and that funds with more bargaining power will deploy capital more rapidly, especially when investment opportunities are large and debt conditions ease. Hüther (2022) documents that less reputable funds deploy more slowly capital and accumulate more dry powder in the investment phase.

4. Consequences of dry powder

The theoretical framework of Axelson et al. (2009) suggests that while private equity contract might be optimal ex ante and for early deals, GP might tend to overinvest in case they lack of opportunities during the investment phase and accumulate “untapped” capital or dry powder.

Their model shows the benefits associated with ex post financing in the form of debt raised on a deal-by-deal basis: debt will discipline the GP in their deal selection in case of constrained capital in bad economic conditions, while it will only mitigate the problem in good economic conditions where debt is cheap and easy to access. Following this framework, dry powder might lead to potential investment distortion.

Lambert et al. (2023) provide empirical evidence supporting GP tendency in LBOs to overinvest untapped capital close to the end of the investment period in inferior deals. This overinvestment is not found for early deals or in other PE investment fund types (like venture capital and growth funds). Inferior deals take the form of deals with higher entry EV/EBITDA multiples, lower syndication and lower cash on cash return than deals executed with normal levels of dry powder. They demonstrate this bears on the overall performance of the fund. Besides, they show some evidence that the investment distortions might be related to the switch in the basis for management fee computation after the investment period (from committed to invested capital). In those funds in particular, GP tend to reduce leverage and to lose the disciplining effect. This suggests that the profit-sharing agreement, and in particular, the management fee arrangement play a role with regard to how dry powder could affect investment decisions.

Dry powder has moreover been associated with funding and buying pressure. On the one hand, Jelic et al. (2021) study the potential misconduct of PE funds and reveal that funds with high funding pressure are more likely to engage in earnings management activities in their portfolio companies before an IPO. Yet, they provide evidence that dry powder plays a moderating role for PE funds under extreme fundraising pressure. On the other hand, Arcot et al. (2015) show that funds under buying pressure close to the end of the investment phase will opt more frequently for secondary buyouts (SBOs) and employ less leverage to avoid a loss in fee collection; their buying pressure index includes variables such as proxies for the level of dry powder of the fund as well as the GP reputation and fundraising activity at the end of the investment period. These results are supported by Degeorge et al. (2016) who also find that late SBO deals completed by LBO funds with a high level of dry powder tend to underperform compared to other SBO deals completed without buying pressure. Combining the buying and fundraising pressure argument, Hütther (2022) shows that funds might be forced to deploy rapidly their capital before a new fundraising phase and engage into bad deals dragging down their overall performance.

5. Conclusion

The literature has focused on the dry powder in LBO funds as a source of buying pressure in various contexts: investments at the end of the investment period, investment close to new fundraising round, higher investment activity in SBOs, or as a source of earnings management pre-IPO in case of funding pressure. Table 1 presents the definition of various measures of dry powder used in the literature.

Figures

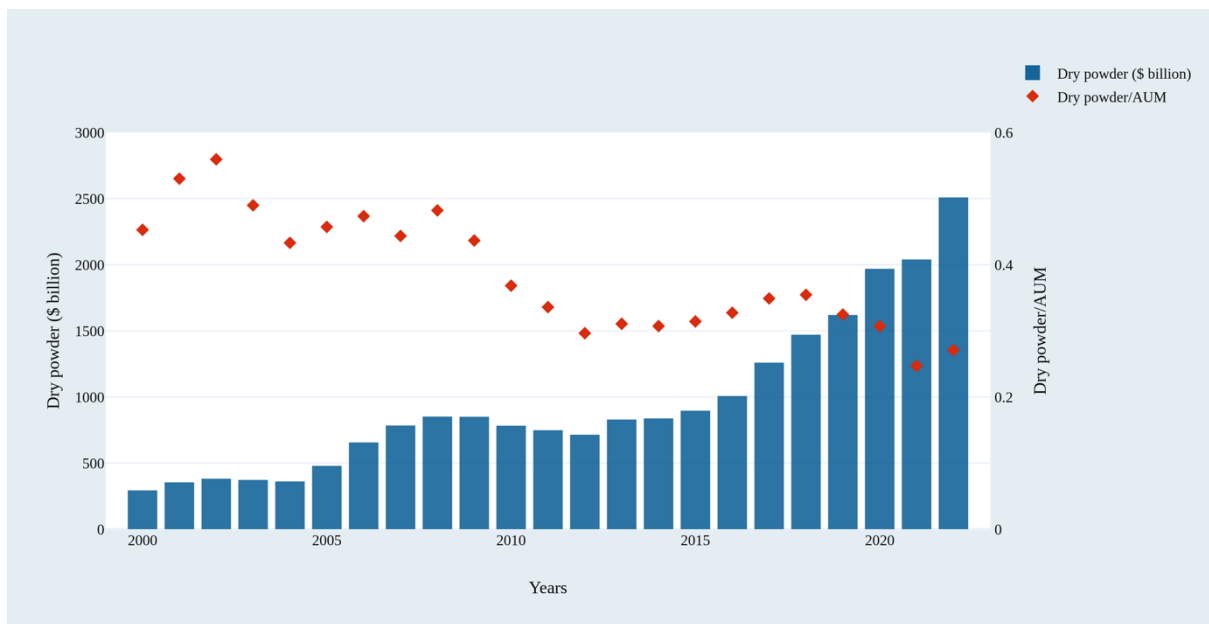


Figure 1 – Panel A. Dry Powder (Global PE funds).

The figure displays the evolution of dry powder and the ratio of dry powder/AUM for global PE funds from December 2000 to December 2022 (Source: Preqin).

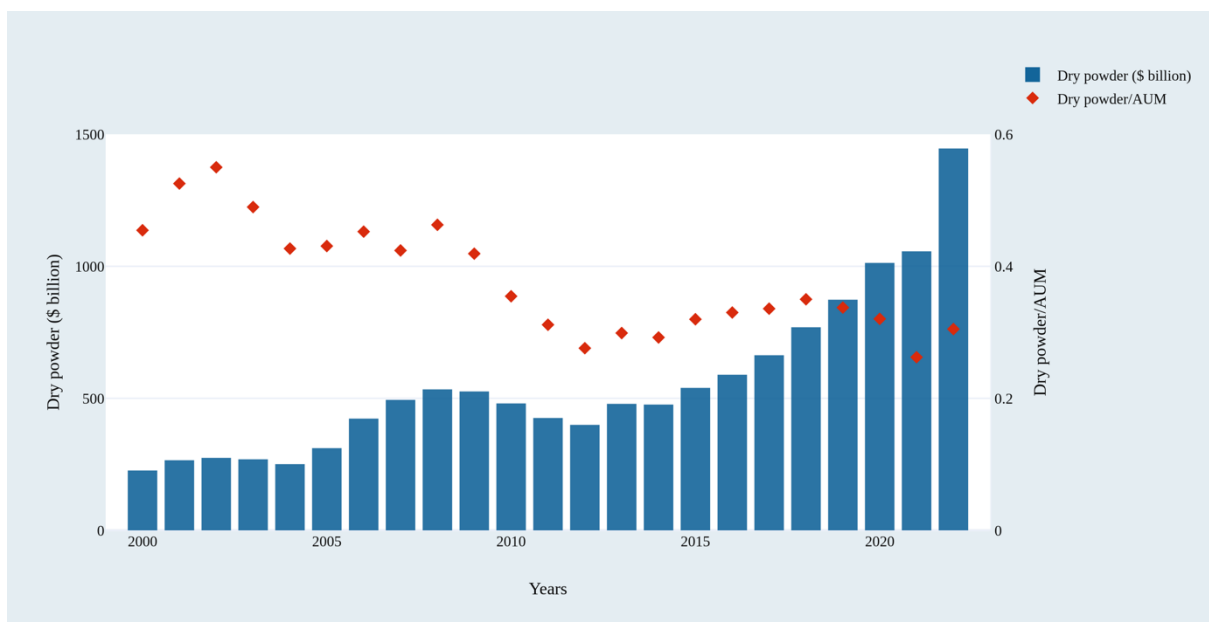


Figure 1 – Panel B. Dry Powder (US PE funds).

The figure displays the evolution of the dry powder and the ratio of dry powder/AUM for US PE funds from December 2000 to December 2022 (Source: Preqin).

Table I – Dry Powder measures used in the literature.

Paper	Definition and measure of dry powder (almost verbatim)
Arcot et al. (2015)	A PE fund has high dry powder/unspent capital if its fund family is above median in terms of fundraising and below median in terms of deal activity.
Chakraborty and Ewens (2018)	Dry powder is the capital available for new investments. It corresponds to the fraction of the fund's initial capital that remains by the financing event.
Degeorge et al. (2015)	Dry powder or excess cash is the difference between the cash left at the time of investment inception and the fitted amount of cash left for a fund of similar age with a normal spending rate.
Hüther (2022)	Dry powder refers to cash not used for early deals. Hüther (2022) measures the time to draw down 70% of committed capital (i.e. 30% remaining cash which has not been used for early deals), the typical contractual threshold to raise a follow up fund.
Jelic et al. (2021)	Dry powder variable refers to a categorical variable equal to one if the total amount invested by the PE firm is inferior to 50% of the amount of money raised by the PE firm in the last round of fundraising before the IPO year.
Lambert et al. (2023)	Dry powder is computed as one minus the ratio of the invested capital to the total committed capital of the fund.

Cross-References

Agency problems
General Partner Compensation
Fees

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