A JUMBLE OF WATERFALLS

MAKING SENSE OF DISTRIBUTION CALCULATION MODELS

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One of the founding principles of private markets is the fact that agreements on terms, language and understanding are only defined between the partners. There is no need for an industry-wide standard to ensure an intrinsic understanding without the need to talk to each other. This has the advantage that relationships can remain exclusive. But it has the severe disadvantage that nobody can be sure about what's being discussed without immediate context or an explicit definition beforehand.

One such term in private markets is "Waterfall".

If any one person starts talking about a waterfall without specific context, potentially everyone in the audience will expect a different topic, and misunderstandings in discussions are to be expected.

So, in what contexts does the word "Waterfall" live? In this white paper we determine four main areas:

- **Allocation between products**
- **Allocation of proceeds among limited partners**
- **Allocation between GP and LP**
- **Allocation within the GP**

We'll explore the reasons why waterfalls are required in each of these contexts and highlight the key points to identify when someone refers to waterfalls in these areas.

Allocation
between products

Securitization is a common practice to package assets to optimize taxes, gains, operations, or to apply regulations or political pressure. The asset categorization and allocation are typically in products such as:

- **Deals**
- **Legal vehicles**
- **Umbrellas with multiple funds**
- **Tranches**

These products allow for different terms, communication, and operational handling. But the association of assets, liabilities, expenses, and revenue of the corresponding product within any structure can be highly complex, and the term “waterfall” is used to summarize such an association or allocation calculations.
A few examples:

Different tranches within a fund can invest into different tranches of an underlying collateralized mortgage obligation pool and thus create their unique exposures to prepayment risk and loss absorption.

Certain investments may find their final destination in a side pocket, or

Subsequent fund launches can cross-collateralize their predecessors.

The commonality in these ‘first step’ waterfalls is that the cash flows of the underlying investments are associated to funds and legal vehicles. Once that is achieved, the ‘second waterfall level’ can kick in and the attribution of the proceeds to investors can start.

In context of these 'first step' waterfalls, terms such as **securitization** and **structuring** are the most common to hear.

Allocation of proceeds among Limited Partners

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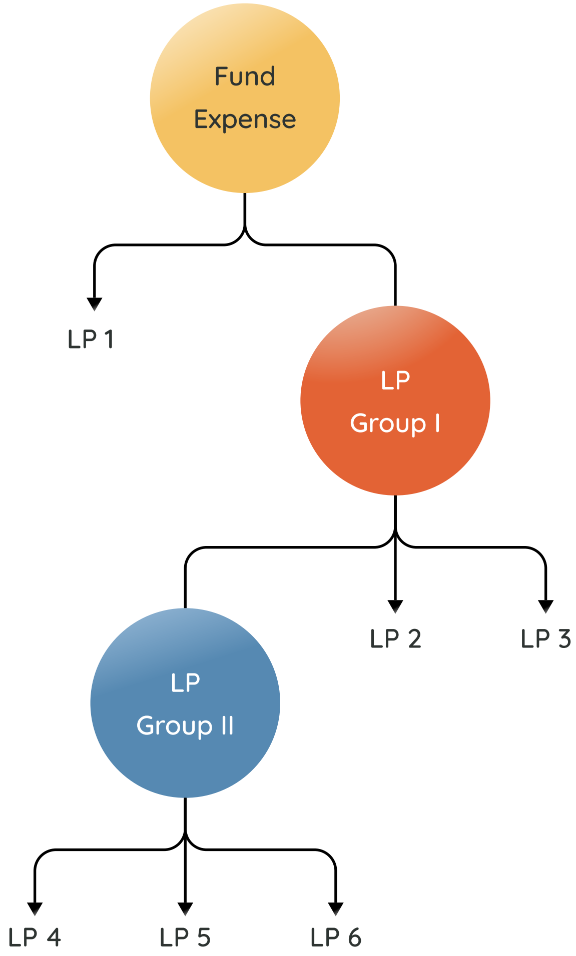
Many different proceeds within a fund are not naturally allocated to the partners. The proper determination of which limited partner has which share of a fund expense, rebate, operational expenses, etc. can get very cumbersome and needs several steps of calculation. These steps follow a priority-like set of assumptions, sometimes referencing them repeatedly – so the allocation of proceeds directly influences the allocation of proceeds in the next calculation. Therefore, it is not surprising that these calculations are often subsumed under the term "Waterfall".

The complexities of the allocation of non-LP-specific proceeds can be hidden in the simple term of "fund expenses are allocated among limited partners based on the NAV". This would be a simple one step waterfall if the NAV is known per limited partner. But very often, the NAV of a fund contains the deduction of fund expenses, which are – no surprise – not available per limited partner. So, the latest allocation rule among limited partners on the fund expenses needs to be applied in order to calculate the current allocation rule among the limited partners. Such a rule can be further expanded by having different sets of rules for different groups of limited partners, or if there are event-specific rebates. Therefore, the waterfalls to calculate the allocation among the limited partners is often more complex than the allocation between the GP and the LP and the waterfall has more steps.

Waterfalls in this context are usually referred to as **fund level proceeds** and **allocation rules.**



A typical example for prioritization, when investors with fee rebates outstanding receive proceeds from a given distribution before a standard allocation rule, such as by contributions, would be applied across the board for all investors. Likewise, could follow the split of a fund's P&L a line-by-line logic: whilst unrealized gains are divided by contributions, the management fee expense may require a multi-step approach; first among the investor groups with different terms and then secondly between the members of each group.

Allocation between GP and LP

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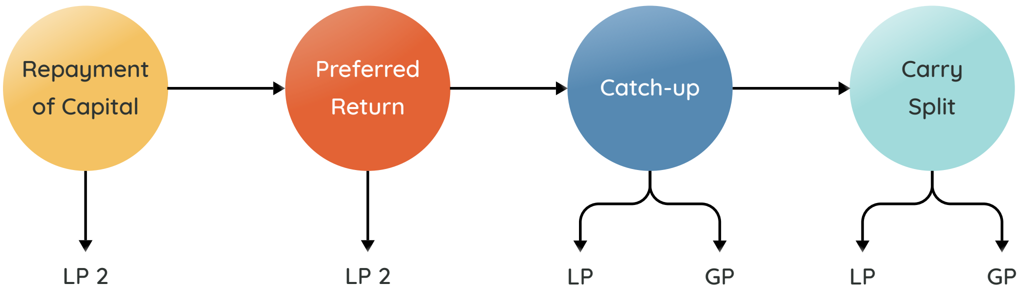
A critical talking point between the fund manager (GP) and its Investors (LP) is the fees the LP needs to pay the GP for management of the fund (management fee or several other expenses), or for the exceeding performance of the fund (performance fee or carried interest). In this case the proceeds are already known for any specific limited partner, i.e. every investor has its 'pot' to share with the GP. The allocation between GP and LP is the calculation of how much the limited partner needs to pay the general partner for the fund's return performance. This is the most traditional use of the word "waterfall" in private markets.



The allocation between GP and LP is often labelled with the more precise term Distribution Waterfall as it lets distribution proceeds fall from one step to the next, and in each step it is defined how the allocation between the limited partner and the general partner is being calculated. The picture above shows a common distribution waterfall with its four steps, ensuring that the limited partner gets their capital back first, with a preferred share of the return, before the general partner gets its performance fee. (The picture however does not outline anywhere the calculation of the management fee and any other expenses.)
The allocation between the general partner and the limited partner can be very simple (such as the famous 80/20 split, as was agreed upon in "traditional" business contracts, but it can be much more elaborate to cover different scenarios or to fulfill business goals.

The complexity is of course not merely for its own sake, but to incentivize striving for performance at all levels of return, and to ensure goal congruence between the investors and the fund manager.

General trends include:

- Pure-play, deal-by-deal and fund-as-a-whole models remain popular, but hybrid structures with a realized subset of deals and a clawback clause are gaining increasing momentum;

- Binary structures (preferred return in full to the LP and catch-up in full to the GP) are more often challenged by models that have multiple tiers of preferred return and catch-up with the percentage of carried interest being driven by investors' return multiples or IRR performance.

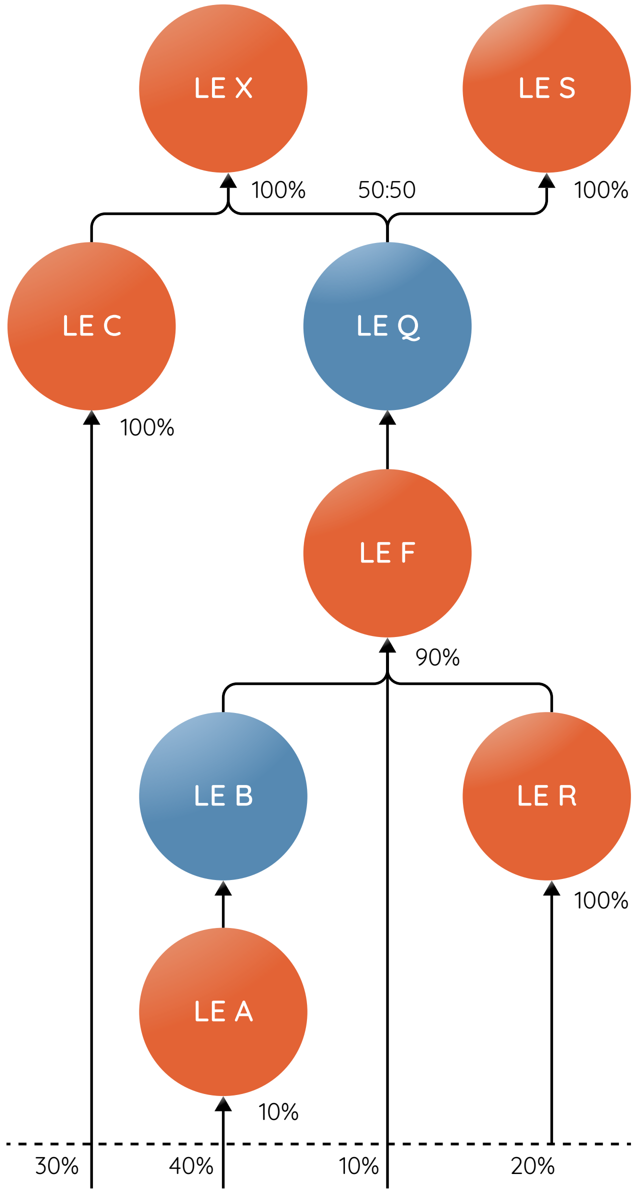
These types of waterfalls are often labelled with terms such as distribution waterfall, carried interest or performance fee calculation, or even value sharing.

Allocation within the GP

Proceeds which are being calculated within the distribution waterfall and therefore allocated to the general partner do not disappear into the void of the GP's accounting, but are used to retain critical talent to the fund manager's company. These proceeds are allocated to the carry holders, which hold a share – the carried interest points – of these proceeds. In terms of the performance fee, carried interest is distributed as retention bonus to the employees. This allocation of proceeds within the general partner occurs in the early stages of any fund, but only as an incentive since the realization of performance fees often only happens years after the closing of a fund.

The incentive exists to align employees within the general partner to generate as much in performance fees as possible, in other words as high performance within the fund as is feasible. With the tool of a vesting schedule, critical employees are retained since the ownership of every single carried interest point is defined by a condition of elapsed time, and is forfeited if the employee leaves the company before that time is elapsed.

Carried interest points constitute a system of allocations of proceeds to the carry holders. That allocation of proceeds often has a path through several steps considering taxes, hold-backs or other entities with a higher carried interest point priority. Therefore, this allocation of proceeds within the carry holders is also called a waterfall. The more precise term is **carried interest waterfall.**

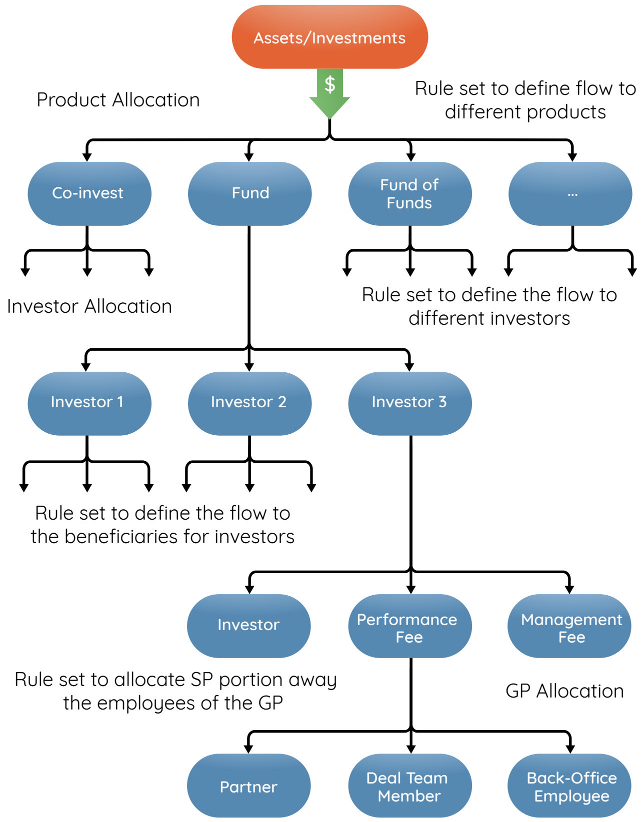


The confusion between a distribution waterfall and a carried interest waterfall is the most common misunderstanding, especially as even more precise terms can be used interchangeably. Additionally, the two waterfalls are often considered to be one waterfall per se without considering that they have an entirely different nature – where the distribution waterfall has the calculation of the proceeds in focus, the carried interest waterfall is for the administration of an HR methodology to retain employees.

The context of this waterfall can be identified as soon as **employees**, **retention**, **incentivization** and **vesting** are mentioned.

So, what's the problem?

The “jumble of waterfalls” can cause trouble as soon as an outside party needs to be involved in the conversation. This could be because services need to be outsourced, insourced, or maybe because of change process or collaboration with other players. The assumption that everybody understands the same thing when saying a term is both wrong and hazardous. It can take a very long time and cost significant money until someone realizes that both parties did use the same terms but were talking about entirely different things. Besides the fact that the correction will cost even more time and money, the frustration can just kill a project.



Since the concept of any standardization on language used is an unrealistic shot in the dark, the recommendation is always to provide and ask for context in any discussion. It’s important to note that what is discussed in this paper is not four stand-alone, isolated waterfalls. Rather, four waterfalls that are very much connected.

- The first waterfall we described splits the underlying investments’ cash flows across multiple products.
- In the second instance, investors in each product share the pie among themselves, often in multiple steps or with preferential rights.
- Once they have their own pots, investors remunerate their fund managers, conditional upon performance.
- Finally, fund managers boil down their carried interest into variable compensation to their employees

And just as the seas and oceans are interconnected and one cannot say where they begin or end, the same can be said of financial waterfalls. Indeed, carry holders may receive their variable compensation in the form of an investment opportunity into the very fund they manage, and then it all starts again from the very beginning.

About **qash**qade

Founded in 2018, **qash**qade provides private market organizations an enterprise product suite for streamlining their calculation, allocation, tracking and reporting processes. Waterfall and carried interest calculations can be automated, replacing manual, error-prone spreadsheets and improving communications between GPs and LPs through enhanced reporting. Built by private markets experts, for private markets experts, the qashqade platform offers a flexible, modular based solution for fund managers, fund administrators and investors alike, and is asset-class agnostic.

We also offer a managed service for LPs and our team of experts can help you gain better visibility on your exposure using qashqade's proprietary waterfall calculation engine and by generating precise calculations for validating Limited Partnership Agreements (LPAs) for any time period. Headquartered in Zürich, qashqade also has offices in New York, London, and Budapest.

Visit **www.qashqade.com** for more information.

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Gregor is an expert in waterfall calculations and distributions in the Private Markets sector. He has worked in various roles in the financial services sector, predominantly as product manager and IT leader. Gregor holds a Masters in Physics from the ETH in Zurich, an MBA from Rochester-Bern and a certification in Financial Modelling, Valuation and M&A from HHL Leipzig Graduate School of Management.

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