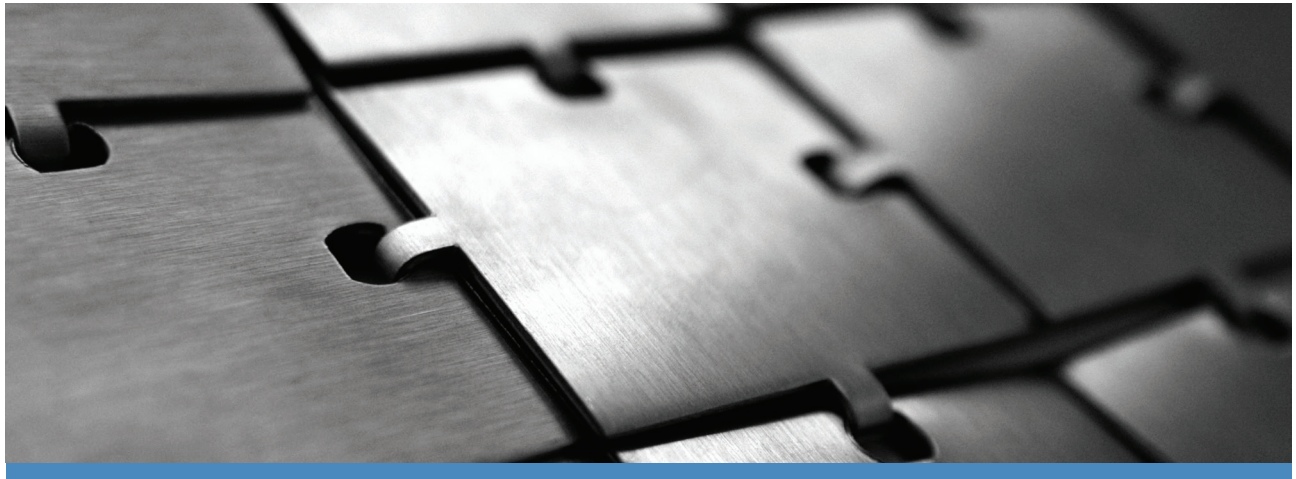


PRIME BROKERAGE PERSPECTIVES

Strategic Alpha Generation: The Evolution of the Hedge Fund Treasury Function in an Era of Complexity

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J.P.Morgan



Introduction

As the financial industry adapts to an era of increasing complexity, the hedge fund treasury function is growing in strategic value as a key differentiator among hedge fund managers. This quarterly *Perspectives* piece discusses how hedge funds across strategies and scale can structure their treasury functions to optimize counterparty relationships and internal financing decisions.

Traditionally, many hedge fund treasurers – or, for hedge fund firms without a dedicated treasurer, executives with equivalent responsibilities such as COOs or CFOs – have focused primarily on cash and collateral management, counterparty risk, margin requirements, financing and leverage. With the changing environment, hedge fund firms may enhance their treasury functions to play more of an advisory role, focusing increasingly on strategic alpha generation, i.e., maximizing efficiency and transparency to maximize returns for investors.

There is no one-size fits all model for the treasury function and structure may be driven as much by complexity and strategy composition as by scale. For larger hedge fund firms, particularly multi-strategy, this may mean organizing and empowering treasury desks so that counterparty usage¹ and financing costs can be allocated efficiently among their various investment teams and funds. For smaller or single-strategy hedge funds that do not have a treasury desk *per se*, it may be necessary for the COO or CFO – working in tandem with the CIO – to manage borrowing from, and payments to, bank counterparties so as to optimize investment returns. This report considers the key issues that

treasurers and hedge fund principals will need to contemplate as the hedge fund landscape continues to evolve.

I. Implications of the Evolving Regulatory Architecture

While strong treasury management has always been a good practice for hedge funds, the evolving regulatory landscape has added further impetus for the treasury function to add strategic value.

New financial regulations will likely have several ramifications for banks and their hedge fund clients:

- *First*, new regulations may constrain the notional availability of bank balance sheets for clients. The relative scarcity of balance sheet may lead to greater emphasis on holistic relationship management across the prime broker franchise.
- *Second*, banks are becoming increasingly adept at measuring all aspects of the client relationship across financing and execution through robust analytics.
- *Finally*, proposed regulations will likely cause the tenor of prime broker financing to become extended, which, all else being equal, will make such financing costlier over time.

Consequently, the function of the treasurer is gaining in strategic importance as hedge funds concentrate increasingly on the optimization of balance sheet usage.

¹ Usage in this context has both a quantitative and qualitative dimension

II. From Execution to Strategic Alpha Generation

There are several steps on the road to such optimization. A fundamental first step for treasurers should be to understand clearly their firms' balance sheet footprint with bank counterparties. By gaining this insight, treasurers can then work in partnership with counterparties to optimize their firms' usage of bank resources. Finally, treasurers may want to optimize the allocation of balance sheet usage within and among their firms' investment teams to maximize the franchise value of the hedge fund complex as a whole. Through these processes, the treasurer may come to serve as both the voice of the hedge fund complex externally with counterparties, and as an internal mediator of competing interests among the various investment teams.

i. Understanding the Balance Sheet Footprint

Knowledge is power. The fundamental shift from allocating balances to managing balance sheet means that transparency is critical to an effective, mutually beneficial partnership between hedge funds and their bank counterparties. Treasurers should thus understand: (1) how notional financing balances affect the prime broker's balance sheet; (2) the impact of different types of financing (i.e., cash versus synthetic, higher versus lower quality assets, etc.); and (3) how prime brokers evaluate netting benefits, internalization, portfolio lean and off-balance sheet requirements. Prime brokers may have different views regarding balance sheet and revenue attribution depending on the composition of their clients' portfolios. Consequently, hedge funds may find that prime brokers offer different solutions with respect to balance sheet and financing optimization.

ii. Optimizing the Balance Sheet Footprint

As treasurers partner with financing counterparties to gain a better understanding of the strategic levers that are available to optimize balance sheet usage, they can work with their counterparties to make cost-effective (and, in some cases, cost/less) adjustments to improve returns on balance sheet within and among their prime brokers. Through active dialogue, hedge fund treasurers may be able to reallocate balances among prime brokers to create mutually beneficial optimization for both sides as well as preserve optionality for future growth.

iii. Maximizing Franchise Value

Treasurers should also focus on the allocation of balance sheet usage internally to try to maximize the franchise

value of the firm as a whole. Historically, the relationship between the trading desks and the treasury group has been primarily transactional, with trading desks seeking best financing execution for the strategies that require leverage. Increasingly, the trading desk-treasury relationship will become more of a two-way dialogue, with treasury staff providing strategic guidance regarding different types of execution (e.g., cash versus synthetic, repo versus margin loan) to help optimize bank balance sheet usage.

III. Hedge Fund Treasury Models

As the treasury evolves into a strategic function focused on maximizing value across the franchise through counterparty relationship management, enhanced responsibilities may extend beyond prime brokerage financing to encompass all aspects of the hedge fund-bank relationship to ensure that there is a complete and transparent understanding as to how the two sides interact.

As stated previously, there is no single correct way for hedge funds to structure their treasury function. Rather, there is a continuum ranging from decentralized to highly centralized structures. For ease of explanation, we refer to three models.

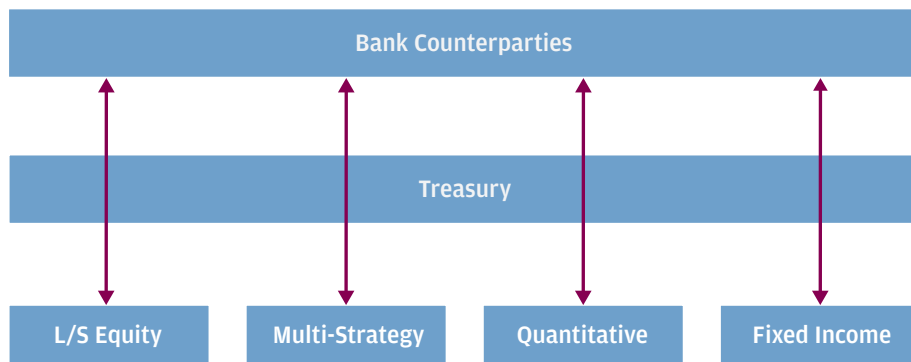
The first of these structures, which we term the Decentralized Model ("DM"), allows each investment team to manage its own balance sheet usage in lieu of a cross-platform centralized treasury function. The second model, which we call Centralization with External Optimization ("CEO"), makes use of a consolidated treasury function across the entire firm. CEO is largely agnostic regarding cost at an investment team or strategy level and seeks to represent externally the franchise as a unified whole. The third permutation, which we refer to as Centralization with Full Optimization ("CFO"), represents more of a gradation on the continuum of centralization. CFO is a two-pronged approach that seeks to optimize external relationships while also governing balance sheet usage among the various investment teams in a consolidated fashion across the entire hedge fund platform. In the multi-strategy context, treasurers will oversee balance sheet usage and costs across individual investment teams and/or funds. For larger single strategy funds such as event-driven, treasurers will oversee such allocations among individual traders who express the funds' views across a range of equity and credit assets. Financing in this model is allocated among the different investment teams based largely on *both* an absolute and marginal cost versus return analysis.

The Decentralized Model

DM allows each investment team to manage its counterparty relationships individually, including with respect to financing (Figure 1). Under DM, the treasurer is focused on collateral management and working with the firm's individual funds to maximize their counterparty relationships. Devolving the management of bank counterparty relationships to the investment desk or individual fund level is applicable in three scenarios. First, when there are any walls between the various individual funds, perhaps for regulatory purposes, it is

necessary for each to manage its own treasury requirements and balance sheet usage since there is no position-level transparency across strategies. Second, a hedge fund firm may lack the scale (as measured by AUM) to justify the costs of a cross-strategy consolidated treasury desk with the attendant costs in terms of technology and staff that such a function requires. Finally, DM may be appropriate if all of a hedge fund firm's strategies are so uncorrelated that the firm's overall franchise value is commensurate with the sum of the parts.

FIG. 1 Decentralized Model



Costs

- Difficult to optimize firm's franchise value
- Difficult to harness economies of scale with respect to a firm's bank counterparties
- Individual investment teams may be disadvantaged relative to larger hedge fund firms from a cost of capital perspective

Benefits

- Maximum flexibility for the individual portfolio managers
- Simplicity of implementation and management
- Low fixed-cost structure

Centralization with External Optimization

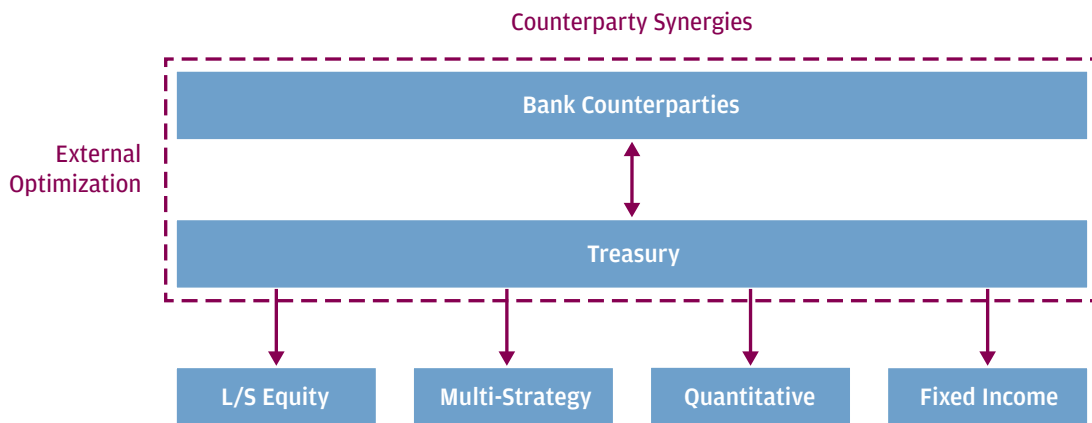
CEO seeks to optimize the hedge fund firm's counterparty relationships at a franchise-wide level but is agnostic to cost and usage for individual strategies at a fund-specific level (Figure 2). In other words, CEO strives to achieve an external benefit for the firm as a whole that is greater than the sum of the parts. The synergies from this model for the hedge fund firm accrue from increased scale and, possibly, from netting benefits. Optimization of this type would enable the platform to maintain strategies that, on a stand-alone basis, could be price-disadvantaged. However, treasurers should be aware that the lack of emphasis on transparency at a fund- or desk-specific level may result in unintended subsidization.

While prime brokers analyze clients from a financing perspective on a fund-specific basis, the hedge fund treasurer,

particularly in any firm that employs a CEO-like model, likely will focus on the hedge fund at a manager level. That is, in discussions with bank counterparties, treasurers may look at their firms' spend for all funds and strategies so that their firms can attain maximum revenue attribution at the franchise level and pass efficiencies along to the entire platform.

The extent of the synergies that may be realized under CEO may be limited depending on legal structure. If the firm's underlying funds are structured as one legal entity, they may be positioned to harness efficiencies with respect to overall costs and with leverage and netting. By contrast, if the underlying funds are structured as separate entities, they may be able to realize synergies with respect to costs but not for leverage and netting due to the limitations on cross-margining for distinct entities.

FIG. 2 Centralization with External Optimization



Costs

- May reduce transparency of true costs of individual fund strategies
- May preserve strategies that are inefficient from a financing perspective by focusing solely on external optimization
- The potential need for hedge fund firms to leverage economies of scale with bank counterparties may lead to counterparty concentration risk

Benefits

- Preserves diverse array of strategies and creates a product less correlated with other risk assets
- Consolidates treasury function for all strategies across the firm
- Greater ease and flexibility to add new fund strategies

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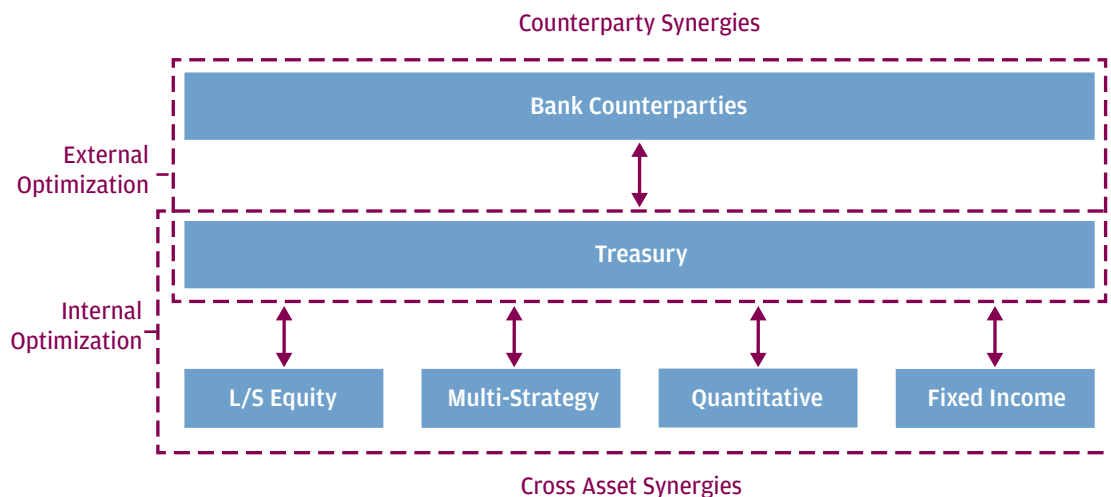
Centralization with Full Optimization

At the far end of the complexity spectrum, CFO makes use of a unified treasury function, the responsibilities of which span the entire hedge fund firm (Figure 3). The hallmarks of this approach are a high degree of centralization to optimize relationships with external counterparties, along with active internal governance to maximize resource allocation to the various investment teams. Accordingly, for purposes of scale, the treasury function will need to assess holistically the entire array of products and services that the hedge fund obtains from its bank counterparties, potentially combining prime broker scorecards and broker votes to form one consolidated process. With CFO, the treasurer essentially becomes the voice of the hedge fund franchise both externally with counterparties and internally, helping to educate, manage and mediate competition

for balance sheet allocations among the individual investment teams.

Under the CFO model, synergies with respect to bank counterparties may be realized for the entire franchise by managing execution and utilization at the individual strategy level. As the hedge fund complex moves further along the continuum towards full optimization, the treasurer may use the transparency it obtains under CFO to apprise the firm's principals as to the costs and benefits of each investment strategy. Such transparency may enable the treasurer to help transform transactional inefficiencies into franchise synergies, supplemented by a rigorous financing cost attribution system to each underlying investment team.

FIG. 3 Centralization with Full Optimization



Costs

- Higher up-front and ongoing costs
- Additional layers of complexity to fund operations. Requires greater coordination between investment teams and treasury
- The potential need for hedge fund firms to leverage economies of scale with bank counterparties may lead to counterparty concentration risk

Benefits

- Maximum transparency regarding price and usage
- May provide long-run cost efficiencies
- Alignment between financing and investment functions may provide more optimal strategy mix

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A Note on Counterparty Consolidation and Diversification Benefits

- A number of larger hedge funds are beginning to ponder consolidation of their bank counterparties in order to harness economies of scale with respect to those counterparties. There is an inherent tension between consolidation, on one hand, and counterparty diversification, on the other hand. This tension is an unintended consequence of the emerging regulatory framework that managers will need to navigate.
 - For firms considering counterparty consolidation to accommodate greater scale, a potential drawback includes heightened complexity.
- In contrast to counterparty consolidation, some higher-AUM hedge funds have chosen to expand their counterparty financing sources. In rare instances, this is a matter of necessity based on a firm's sheer scale and corresponding need for more balance sheet than existing counterparties can accommodate. In other cases, the move to expand counterparties is more a matter of philosophy and rests on the assumption that alternative financing sources will be sufficiently bountiful to counteract industry-wide price dynamics.
 - For firms considering doing so simply to diversify financing sources, there is a risk of dilution such that economies of scale may not be achievable with any single counterparty.

IV. Managing the Migration as Funds Scale in AUM and Strategy

The preceding discussion highlights the spectrum of approaches for structuring a hedge fund treasury function. The exact positioning of a fund complex will depend largely on the firm's scale in terms of both AUM and strategy (Figure 4). While DM may be appropriate for a single-strategy fund, a hedge fund may subsequently evolve to a more centralized model as it adds strategies and increases in scale. Conversely, a firm that only recently added a new strategy may start with a CEO-like model, benefiting from the synergies that might exist within such a structure. As the firm matures, though, there may be a natural progression to a more transparent CFO-like model, allowing the hedge fund complex to further optimize synergies at the investment desk level.

Furthermore, the specific location chosen on the complexity continuum may require some hedge fund managers to build out or expand the infrastructure needed for efficient collateral management and balance sheet usage. The right business management systems can provide hedge funds with the transparency necessary to understand balance sheet utilization by product and may enable such firms to manage counterparty risk from both a credit and a cost perspective. Before investing in such systems, however, one should consider the firm's strategic evolution with an eye towards the eventual structure of the treasury function.

FIG. 4 Comparison of Fund Treasury Models

	DECENTRALIZED	CENTRALIZED	
		EXTERNAL OPTIMIZATION (CEO)	FULL OPTIMIZATION (CFO)
Transparency	<ul style="list-style-type: none"> Little overall transparency 	<ul style="list-style-type: none"> Moderate transparency May have long term cost inefficiencies if individual balance sheet users do not fully understand cost 	<ul style="list-style-type: none"> Full transparency
Cost	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Moderate investment in infrastructure 	<ul style="list-style-type: none"> Moderate to high investment in infrastructure
Diversification	<ul style="list-style-type: none"> Fragmented approach (all strategies handled on their own) 	<ul style="list-style-type: none"> Promotes diversification with shared balance sheet usage High-cost strategies subsidized 	<ul style="list-style-type: none"> Permits diversification subject to each strategy meeting its own funding metrics
Control	<ul style="list-style-type: none"> Less control over balance sheet usage overall 	<ul style="list-style-type: none"> Control of overall relationship to Street, subject to ability to track external franchise value and allocation to counterparties 	<ul style="list-style-type: none"> Control of overall relationship to Street Tracking of individual desk attribution allows for internal coordination and transparency
Optimization	<ul style="list-style-type: none"> Little optimization Less incentive for concentration Less correlation Individual dialogue/management of relationships 	<ul style="list-style-type: none"> Moderate optimization Counterparty concentration Treasurer manages Street-wide relationships Internal management of costs and capturing of efficiencies kept at aggregate level 	<ul style="list-style-type: none"> Full optimization Counterparty concentration Treasurer manages Street-wide relationships and attributes costs and usage internally by strategy Requires development of infrastructure to capture data for internal attribution
Franchise benefit	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Medium to high 	<ul style="list-style-type: none"> High
Best suited for	<ul style="list-style-type: none"> Managers with a low diversification of strategies (i.e., single strategy or few similar strategies) Managers with few counterparties Managers with smaller scale (AUM/breadth of trading activity) 	<ul style="list-style-type: none"> Managers launching new strategies 	<ul style="list-style-type: none"> Managers with a diversified mix of strategies Managers with multiple counterparties Managers with significant scale (AUM/breadth of trading activity)

← LOW COMPLEXITY/SCALE HIGH →

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V. Conclusion

While the treasury model that a hedge fund firm adopts will need to fit both the existing structure and culture of that firm, the treasury can and should be a driver of returns and performance, if implemented effectively. The evolution of the treasury function is therefore germane for various stakeholder groups, including funds themselves, investment banks as well as institutional investors. Irrespective of the

specific treasury model that is used, transparency, ongoing dialogue and close partnership will be integral for all parties - banks, funds and investors - as they adapt to the increasing complexity of the hedge fund environment.

We welcome inquiries from both managers and investors who wish to discuss these issues in more detail.

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